

Knowledge, Attitude and Practice of Epileptic Patients Towards Their Disease

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ABSTRACT

Introduction: Epilepsy is a persistent brain condition. Patients with this condition experience repeated seizures that are brought on by unexpected, abrupt, and excessive electrical discharges in the brain cells. Numerous morbidities, including death and lowered quality of life, are linked to epilepsy (QoL). The development of the proper attitude toward the disease was aided by epilepsy sufferers' awareness of their condition.

Objective: To determine the frequency of adequate knowledge of patients who present with epilepsy at neurology ward of tertiary care hospital in Karachi.

The design of this study was descriptive cross-sectional study. This study was conducted at Jinnah Postgraduate Medical Centre, Karachi and the duration of this study six months and was from January 2021 to June 2021. A total of 91 diagnosed case of epilepsy were included in this study. The researcher was collected data on a prescribed questionnaire regarding demographic variables like age, gender, education level, profession, monthly family income, address & duration of disease. All questions to measure the knowledge, attitude & practices were closed ended with the answer ending in fixed options (Yes/ No). Each correct answer was given score 01 and summed up.

Results: The mean age of the patients was 43.08±10.88 years. There were 42(46.15%) male and 49(53.85%) female. Frequency adequate knowledge of patients who present with epilepsy was observed in 24.18% (22/91) cases.

Conclusion: The patients in our research had a rudimentary awareness of epilepsy, but they had little information about safety precautions, social concerns, or available treatments. In order to enhance AKA for epileptic patients and their families, an improved public epilepsy education paradigm, such as an IT-based epilepsy education tool, is certainly required given the existing level of patient knowledge of the condition. These knowledge gaps between the patient and caregiver might be identified by medical specialists like doctors and clinical pharmacists.

Keywords: Epilepsy, Neurology, Quality Of life, Chronic Brain Disorder

INTRODUCTION

Epilepsy, also known as "Mirgi" or "Jhatkoowalibemari" in local language is one of the oldest known neurological diseases of the world. Epilepsy is basically a chronic brain disorder. The patients of this disease develop recurrent seizures which occur due to unpredicted, sudden & excessive electrical discharges in the brain cells [1]. This condition is defined by as World Health Organization as "a diagnosis of epilepsy is reserved for those who have recurring seizures, at least two unprovoked ones". Epilepsy is associated with lot of morbidity; mortality, decreased quality of life (QoL). Currently it is estimated that about 50 million people are affected with this disease and half of all these live in Asia only [2]. Epilepsy also becomes reason of bad feeling/ guilt & stigmas of the patient as well as the entire family especially in Eastern cultures like ours; where much of epilepsy affected people live [3]. In western societies, groups, societies, such patients find great comfort in blogging and other social settings. Because they knew that community cooperation with modern medicine and early treatment of a medical condition depended on public knowledge and comprehension of the condition. In developing countries like ours however; the lack of such facilities contributes to the lowest compliance. A small study from slum areas of Pakistan (conducted in 2007) revealed that about 87.5% had the knowledge about epilepsy. Also 28.2% could not tell about any treatment available for epilepsy. About one third of all (33%) thought that religious or spiritual treatment is only effective while 54.2% said the effective treatment is anti-epileptic drugs. Only 27.5% of urban and 1.9% of rural Pakistani epileptics, respectively, get anti-epileptic medicines (AEDs), according to prior epidemiologic research [4]. Thus, it is clear that awareness of epilepsy is linked to less depressed symptoms and misconceptions, as well as a feeling of reduced stigma and social isolation. Additionally, greater compliance is achieved by increased understanding of the anti-epileptic medicines utilised and their benefits as well as negative effects.

There is extremely affordable therapy for the illness of epilepsy. Up to 70% of those with this illness might lead productive, happy lives with the right treatment, according to studies conducted in both the developing and developed worlds [5]. Up to 90% of these people don't get proper care which results in less compliance and more morbidity. One reason for this may be having less knowledge and improper/ stigmatized attitude towards the disease and treatment. A recent study conducted on epileptic patients regarding their knowledge, attitude and practices for their disease, it was found that overall, 25.5% and 60% of the respondents have knowledge about the cause and treatment of epilepsy, respectively, further it was also found that as much as 70% had positive attitude while 53% had correct practices towards their treatment [6].

METHODS & PATIENTS

The design of this study was descriptive cross-sectional study. This study was conducted at Jinnah Postgraduate Medical Centre, Karachi and the duration of this study six months and was from January 2021 to June 2021. Taking estimated prevalence of good knowledge, 25.5%, positive attitude, 70% while correct practices, 53% among epilepsy patients,^[11] bound of error 9%, & level of confidence 95% & using WHO's sample size calculator; the calculated sample size (n) is 91. After approval of synopsis from the Research Evaluation Unit of CPSP- Karachi, the permission for the data collection was sought from Ethical committee of JPMC & ward Incharge. The patients presenting to OPD of Neurology as follow-up cases of epilepsy was included in the study after getting their written consent. The researcher was collected data on a prescribed questionnaire regarding demographic variables like name, age, gender, education level, profession, monthly family income, address & duration of disease. Questions pertaining to measure the adequate of patients regarding epilepsy (Primary outcome) were in Urdu. If patient is uneducated then the questions was read out to the patient by the researcher. The given answer

was noted on the proforma. Questions regarding attitude of patient towards the disease and practices for treatment were also asked and noted similarly. All questions to measure the knowledge, attitude & practices were closed ended with the answer ending in fixed options (Yes/ No). Each correct answer was given score 01 and summed up.

Those patients who have attended at least one such workshop in previous six months. Those who themselves are in medical profession (Doctor, nurse, medical technician); or have at least one person of medical field in their family. Approval of synopsis is sought from the College of Physicians and Surgeons of Pakistan. The ward's department head gave the go-ahead for the data collecting. Patients provided written, fully informed permission, and it was made sure that the information was kept private. Patients were fully aware of the study's goals and procedures. Through SPSS-21, data input and analysis were completed. For continuous variables including age, household income monthly, illness duration, and KAP score, the mean and standard deviation were presented. For occupation, gender, residence (rural or urban), educational attainment, and contact with the medical profession, frequency and percentages were expressed. By stratifying these variables, the chi-Square test was used to analyse the effect modification of the outcome variable (Adequate Knowledge) due to age, gender, profession, residence, education status, monthly family income, contact with the medical profession, and duration of disease. A P value of 0.05 was considered significant. To account for possible confounders, stringent adherence to the selection criteria was used.

RESULTS

A total of 91 diagnosed case of epilepsy were included in this study. Age distribution of the patients is presented in figure 2. The mean age of the patients was 43.08±10.88 years. Similarly average monthly income, duration of disease and KAP score is also shown in table 1. There were 42 (46.15%) male and 49 (53.85%) female as shown in figure 3. Most of the patients were moderately educated as shown in figure 4. Regarding profession, 36 (39.56%) were private job but all were blue color job while 23 (25.27%) were government job and some are white color and some blue color, 13 (14.29%) were running their small business while 19 (20.88%) were worked as worker as shown in figure 1. There were 49 (53.85%) visited from rural and 42 (46.15%) urban as presented in figure 2. Eight patients (8.79%) were concerned with medical profession in figure 3.

Table 1: Descriptive Statistics of Characteristics Of Variables

Variables	Mean	SD	Median	Interquartile Range
Age (Years)	43.08	10.88	46.00	16
Income (Rs.)	21516.48	9,561.9	19000	5000
Duration of Disease (years)	3.26	0.99	3.00	1
KAP score	13.55	6.31	12	10

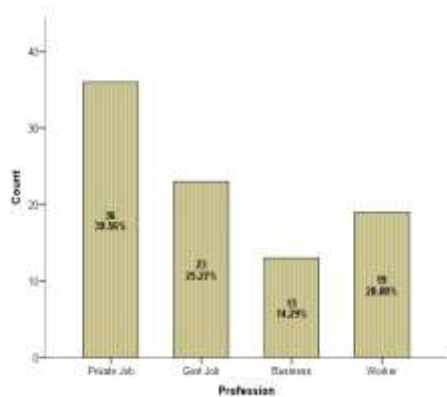


Figure 1: Profession Status Of The Patients n=91

Frequency adequate knowledge of patients who present with epilepsy was observed in 24.18% (22/91) cases as presented in figure 4. Difference in adequate knowledge was not significant among different age groups (p=0.074) as shown in table 2. Similarly difference in adequate knowledge was also observed with respect to gender but found insignificant as shown in table 3. Adequate knowledge was significantly high with bachelor and master as compare to low educated patients (p=0.0005) as presented in table 4. Adequate knowledge was significantly high with private job and those people who had own business as shown in table 5. Difference in adequate knowledge was not significant between rural and urban table 6.

Table 2: Frequency Adequate Knowledge Of Patients Who Present With Epilepsy With Respect To Age Groups n= 91

Age Groups (Years)	Adequate Knowledge		Total	P-Value
	Yes	No		
≤ 30 (Years)	2(12.5%)	14(87.5%)	16	0.074
31 to 40 (Years)	7(35%)	13(65%)	20	
41 to 50 (Years)	4(12.9%)	27(87.1%)	31	
>50 (Years)	9(37.5%)	15(62.5%)	24	

Chi-Square =6.94

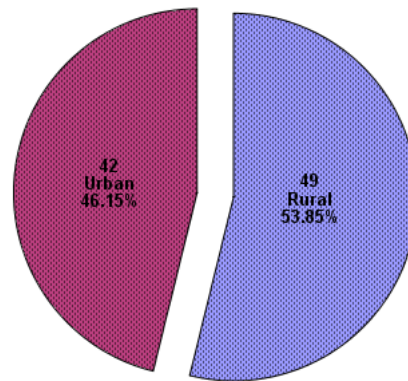


Figure 2: Residency Of The Patients n=91

Table 3: Frequency Adequate Knowledge Of Patients Who Present With Epilepsy With Respect To Gender n= 91

Gender	Adequate Knowledge		Total	P-Value
	Yes	No		
Male	11(26.2%)	31(73.8%)	42	0.67
Female	11(22.4%)	38(77.6%)	49	

Chi-Square = 0.173

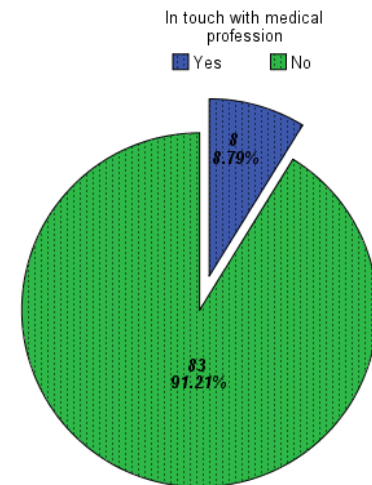


Figure 3: In Touch With Medical Profession n=91

Table 4: Frequency Adequate Knowledge Of Patients Who Present With Epilepsy With Respect To Education n= 91

Education	Adequate Knowledge		Total	P-Value
	Yes	No		
Uneducated	0(0%)	20(100%)	20	0.0005
Primary and Secondary	2(10%)	18(90%)	20	
Matric	4(17.4%)	19(82.6%)	23	
Intermediate	11(50%)	11(50%)	22	
Bachelor and Master	5(83.3%)	1(16.7%)	6	

Chi-Square =28.60

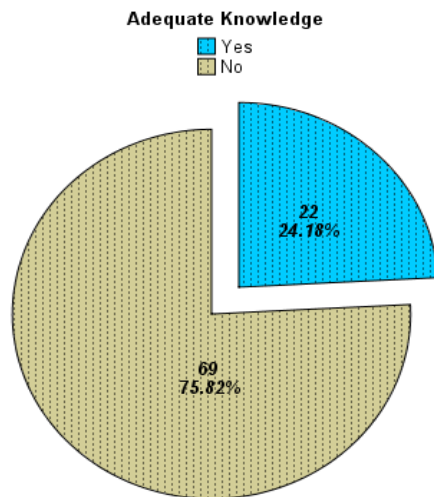


Figure 4: Frequency Adequate Knowledge Of Patients Who Present With Epilepsy n= 91

Table 5: Frequency Adequate Knowledge of Patients Who Present with Epilepsy with Respect to Profession n= 91

Profession	Adequate Knowledge		Total	P-Value
	Yes	No		
Private Job	13(36.1%)	23(63.9%)	36	0.003
Gove Job	3(13%)	20(87%)	23	
Own Business	6(46.2%)	7(53.8%)	13	
Worker	0(0%)	19(100%)	19	

Chi-Square =13.83

Table 6: Frequency Adequate Knowledge Of Patients Who Present With Epilepsy With Respect To Residence n= 91

Residence	Adequate Knowledge		Total	P-Value
	Yes	No		
Rural	11(22.4%)	38(77.6%)	49	0.67
Urban	11(26.2%)	31(73.8%)	42	

Chi-Square =0.173

DISCUSSION

Instead of referring to a specific disease entity, epilepsy is a clinical phenomenon that is defined by recurring seizures brought on by an underlying, chronic process [7,8]. One of the most prevalent neurological conditions globally is epilepsy. In the overall Pakistani population, it affects 1% of people, with most epileptics under the age of 19. In rural regions, the age-specific prevalence rates are 14.8, whereas in urban areas, they are 7.4 [9,10]. Epilepsy stigma and false beliefs about the condition can place a heavier burden than the actual condition itself [11]. Stigma can have a major detrimental impact on treatment seeking behaviour as well as overall quality of life, which includes marriage, childbearing, education, work, and social benefits [12]. The strain is increased by discrimination at work, school, and by friends, spouses, and family members. Both the epileptic and their family members are impacted by social rejection. The goal of epilepsy therapy should be selecting the best course of action in conjunction with patient

education. The right coping techniques are strongly tied to one's ability to grasp their condition [13]. It is also well recognised that better patient education may lead to better symptom management [14,15]. In the current study, efforts were undertaken to gauge the level of epilepsy patients' understanding of the condition.

Epidemiologic studies on epilepsy show that generally, male patients exhibit a somewhat greater incidence of epilepsy than female ones [16]. The Rochester epilepsy research also discovered that men were somewhat more likely than women to have epilepsy (6.5 vs. 6.0 per 1000 people) [1]. 53.85% of participants were women and 46.1% were men in our research. Similar findings have been discovered in other studies investigating gender differences in generalised epilepsies [17,18], and generally speaking, it appears that women experience idiopathic generalised epilepsy more commonly than males. Although the cause of this discrepancy is unknown, it is likely that sex hormones contribute to the onset of idiopathic generalised epilepsy. According to two studies conducted in Pakistan [19] and India [20], epilepsy was more common in rural than in urban regions. Indeed, a prevalent tendency in emerging nations like Malaysia is a higher frequency of epilepsy in rural regions. In our study, we discovered that out of 91 identified epilepsy cases, 53.85% came from rural areas and 46.15% came from urban areas.

According to studies, PWE tend to know less about their medical state than individuals who do not have it [21]. In our study, 24.18% (22/91) instances were found to have appropriate understanding of patients who come with epilepsy, which appears to be a very low frequency. Our findings are consistent with those of previous investigations. In a related research done in the UK [22], people without epilepsy showed more understanding of the medical components of the condition than did those who had it. According to a research done in South Thames, England, 35% of epilepsy patients thought they were not getting enough information regarding their condition. According to Goldstein et al., epilepsy patients at a tertiary care facility in England were ignorant of the types of seizures and the reasons for anticonvulsant drug (AED) therapy [23]. In our study, there was a favourable association between literacy and appropriate illness knowledge among epilepsy patients. When compared to patients with low education levels, those with bachelor's and master's degrees had much more adequate knowledge. Similar findings regarding educational attainment and epilepsy attitudes have been reported from research conducted in India [24], China, Nigeria, and Sri Lanka. In our study, there is an inverse relationship between respondents' awareness of disease and their financial position. Greater Total AKA levels and better attitudes regarding epilepsy were reported by respondents with higher monthly incomes compared to those with lower monthly incomes. Low-income respondents likely have less access to epilepsy information, which has contributed to their incorrect perceptions of the condition [25]. This occurred mostly as a result of the absence of information in the media that was available to laypeople. Prior research in various developing Asian nations with lower rates of monthly income, such as China, Taiwan, Singapore, Thailand, and Pakistan, typically shown similar levels of knowledge.

CONCLUSION

The patients in our research had a rudimentary awareness of epilepsy, but they had little information about safety precautions, social concerns, or available treatments. In order to enhance AKA for epileptic patients and their families, an improved public epilepsy education paradigm, such as an IT-based epilepsy education tool, is certainly required given the existing level of patient knowledge of the condition. These knowledge gaps between the patient and caregiver might be found by health care experts including doctors and clinical pharmacists. This should serve as the next area of focus for research that evaluate novel health teaching techniques for the benefit of all people, especially those living in distant areas.

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