Original Article

Knowledge, Attitude, and Practice of Epileptic Patients Towards Their Illness and Treatment in Jimma University Specialized Hospital, Southwest Ethiopia

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Abstract

Background: Epilepsy is a major public health problem and specially in developing countries where its incidence is found to be higher. In countries like Ethiopia, epilepsy is thought as a supernatural happening and patients usually suffer from social discrimination and prejudice. **Aims:** The objective of this study was to assess the knowledge, attitude, and practice of people with epilepsy regarding their illness and its treatment at Jimma University Specialized Hospital (JUSH). **Materials and Methods:** A cross-sectional hospital-based study was conducted among patients with epilepsy on follow-up at epilepsy clinic. The study was done between June and July 2013 and data was analyzed by using SPSS version 16.0. **Results:** A total of 180 epileptic patients, on follow-up clinic, were interviewed out. A total of 25.5% and 60% of the respondents have knowledge about the cause and treatment of epilepsy, respectively. And, 70% of the respondents have positive attitude towards their treatment. About 53.3% of the respondents suggested correct positioning of the patients during seizure to prevent aspiration. **Conclusion:** The study has showed that the majority of the respondents have medium knowledge and better attitude towards epilepsy and its treatments. They also have medium knowledge about the first aid measures to be taken for seizing patients.

Keywords: Attitude, Epilepsy, Knowledge, Practice, Seizure

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Introduction

Epilepsy is one of the chronic non-communicable diseases among the major causes of morbidity and mortality worldwide. It is also one of the public health problems and is a particular importance in developing countries where its incidence is found to be higher.[1]

Epilepsy is a widely recognized health condition, but one that is poorly understood, even among people who know someone with the disorder. Lack of knowledge about the causes of epilepsy has been associated with negative attitudes and beliefs. Lack of understanding about epilepsy is a leading cause of stigma in the workplace and in schools.[2] Very little is known about epilepsy in Ethiopia.[3] Studies done to determine knowledge, attitude, and practice about epilepsy have shown that people living in different parts of the world and even those suffering from the disease have poor knowledge regarding the cause, nature, and treatment of epilepsy. Traditional beliefs, attitudes, and practice are widespread.[4,5]

Epilepsy is traditionally looked upon as caused by ancestral spirits or attributed to possession by evil spirits. It is also thought to be due to witchcraft and "poisoning" and often thought to be contagious. In some communities, it is thought to be brought up on one as punishment for ones sins.[5] In many parts of Africa, synergistic amalgamation of indigenous traditions with Judeo Christian doctrines unfenced popular attitudes towards epilepsy.[6]

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The international league against epilepsy (ILAE), which represents medical practitioners and scientists and the international Bureau for epilepsy (IBE), which acts on behalf of patients and their families, have joined World Health Organization (WHO) in launching the global campaign to improve the treatment and social acceptance of epileptic patients.[7] Reducing the burden of epilepsy in low- and middle-income countries requires understanding of the cultural aspects of epilepsy but studies still demonstrated that there is poor knowledge about methods of dealing with seizures.[8,9]

The rational for conducting this research is to provide baseline information and document the extent of the problem. It will also help for planning future research in the area and will also, hopefully, stimulate concerned officials and organizations for interventions that include not only the extension of services, but also the training of the staff and educating the patients, and the public at large.

Materials and Methods

This cross-sectional prospective study was conducted at Jimma university Specialized Hospital (JUSH) from June 28, 2013 to July 13, 2013 using structured questionnaire. A formal ethical letter was obtained from Jomma University College of Public Health and Medical Sciences Ethical Review Board and allowance was given to the hospital before starting data collection. Strict confidentiality was assured through anonymous recording and avoiding patient identifying information. The raw data were kept secured in a locked cabinet in the researchers' office.

JUSH is one of the oldest hospitals in Ethiopia and was established in 1937. It provides clinical services for approximately 9,000 inpatient and 80,000 outpatient attendances per year coming to the hospital out of catchment population of about 15 million people. The hospital provides different pharmacy services to both inpatients and outpatients. There are many clinics for follow-up of patients with chronic illness at the hospital among which the epilepsy clinic is one. The clinic consists of three rooms. There are 680 people currently on follow-up at the adult epilepsy clinic and is run by seniors physicians, residents, health officers (HO), medical interns, clinical pharmacists, and nurses.

All patients with epilepsy attending follow-up clinic at JUSH were considered as source population. Patients less than 10 years who are on seizure attack at the time of data collection and patients with severe intellectual disability were excluded from the study. One hundred and eighty epileptic patients were sampled and interviewed in the study.

Data collectors were trained about the objectives of the study and how to fill the questionnaires. The data collection was supervized daily and filled checklists were collected daily so as to check whether data was filled correctly or not.

Statistical analysis

Data was cleared, coded, and entered into the computer and analyzed by SPSS 16.0 statistical software. *P*-values and chi-square tests were calculated by using online chi-square calculator. A *P*-value of less than 0.5 was considered as a statistically significant association between variables in all tests.

Results

Knowledge about epilepsy and its treatment

Regarding the knowledge of the cause of epilepsy, 58 (32.2%) of the respondents said, " we don't know the cause of epilepsy," 46 (25.5%) respondents correctly said that epilepsy was caused by a brain damage or disease. And, 12 (6.6%) believed that epilepsy is caused by evil spirits. Also, 44 (24.4%) of the respondents said that the cause of epilepsy was from the others: Like from God, 8 (4.4%) of the respondents said that it was hereditary, 4 (2.2%) of them believe that it is a punishment of sins, and 4 (2.2%) said that epilepsy is transmitted through contacts with epileptic patients.

Regarding the aim of treatment of epilepsy, 108 (60%) of respondents said that medications decrease the frequency of seizures, 66 (36.6%) of them said that epilepsy is entirely cured by medications while 6 (3.3%) said that medications do nothing [Tables 1 and 2].

Attitude towards epilepsy and its treatment

Concerning attitude, 126 (70%) of the respondents have a positive attitude, 29 (16.1%) of the respondents have a negative attitude while the remaining 25 (13.8%) were uncertain. 46 (25.5%) of respondents with positive attitude are illiterate and 39 (21.6%) of respondents with positive attitude are grade 1-8. Moreover, 63 (35%) of single respondents have positive attitude and 57 (31.6%) of married respondents have negative attitude. Furthermore, 96 (53.3%) of the respondents with positive attitude have income less than 100 birr per month. The association between attitude and duration of follow-up at JUSH epilepsy clinic is statistically significant [Tables 3-5].

Patients' practice

Regarding the measure taken during seizure attack, about 11.111% of respondents use method of lighting

Table 1: Socio - demographic characters and knowledge of epileptic patients in Jimma University Specialized Hospital, June - July 2013

Variables	Knowledge						X^2 test	*P*-value
	Good		Fair		Poor			
	No	%	No	%	No	%		
Age								
<19	8	4.44	34	18.18	16	8.88		
20-35	10	5.55	58	32.22	28	25.55		
36-45	2	1.11	4	1.22	6	3.33	16.70	0.033
46-54	2	1.11	2	1.11	0	0		
≥55	0	0	10	5.55	0	0		
Total	22	12.23	108	54.96	50	27.77		
Sex								
Male	16	8.88	72	40	32	17.77		
Female	6	3.33	36	20	18	10.00	0.52	0.770
Total	22	12.21	108	60	50	27.77		
Religion								
Orthodox	4	2.22	16	3.88	6	3.33		
Muslim	18	10	76	42.22	42	23.33		
Catholic	0	0	2	1.11	0	0		
Protestant	0	0	14	7.77	2	1.11	8.05	0.234
Others	0	0	0	0	0	0		
Total	22	12.21	108	59.96	50	27.77		
Occupation								
Merchant	0	0	2	1.11	0	0		
Government employee	2	1.11	6	3.33	0	0		
Housewife	0	0	4	2.22	2	1.11		
Farmer	10	5.55	52	28.28	30	16.66	20.3	0.062
Student	6	3.55	30	16.66	11	6.11		
Non-worker	0	0	8	4.44	7	3.88		
Others	4	2.22	6	3.33	0	0.00		
Total	22	12.21	108	59.96	50	27.77		
Marital status								
Single	10	5.56	58	32.2	24	13.3		
Married	12	6.67	46	25.56	24	13.3	1.88	0.757
Divorced	0	0	4	2.2	2	1.1		
Widowed	0	0	0	0	0	0		
Total	22	12.23	108	59.96	50	27.7	18.8	0.016
Income (in birr)								
<100	12	6.67	74	41.1	44	24.4		
100-200	8	4.4	16	8.89	6	3.3		
200-300	0	0	4	2.2	0	0		
300-400	0	0	4	2.2	0	0		
>400	2	1.1	10	5.56	0	0		
Total	22	12.17	108	59.95	50	27.7		
Ethnicity								
Oromo	16	8.89	82	45.56	38	21.1		
Amhara	2	1.1	8	4.4	4	2.2		
Tigree	0	0	4	2.2	0	0	19.9	0.030
Gurage	0	0	0	0	0	0		
Keffa	0	0	6	3.3	0	0		

(*Continued*)

Table 1: Continued

Variables	Knowledge						X^2 test	*P*-value
	Good		Fair		Poor			
	No	%	No	%	No	%		
Yem	2	2	8	4.44	2	1.11		
Others	2	1.11	0	0.00	6	3.33		
Total	22	12.22	108	59.99	50	27.77		
Literacy status								
Illiterate	8	4.44	30	16.66	26	14.44		0.002
Read and write	2	1.11	24	13.33	2	1.11	24.86	
Grade 1-8	8	4.44	40	22.22	10	5.56		
Grade 9-12	4	2.22	10	5.55	12	6.66		
Grade 12^+	0	0	4	2.22	0	0		
Total	22	12.21	108	59.98	50	27.77		

Table 2: Epileptic patients' knowledge towards their illness, Jimma University Specialized Hospital, June - July 2013

Variables	Knowledge						X^2 test	*P*-value
	Good		Fair		Poor			
	No	%	No	%	No	%		
Number of years with epilepsy								
<1 year	0	0	6	3.33	2	1.11		0.044
1-5 years	9	5.00	47	26.11	22	12.22	15.86	
6-10 years	8	4.44	34	18.88	8	4.44		
11-15 years	2	1.11	12	6.66	6	3.33		
>15 years	2	1.11	8	4.44	14	7.77		
Total	21	11.67	107	59.44	52	28.89		
Frequency of seizures								
Never	8	4.44	22	12.22	40	22.22		
1 x/month	13	7.22	29	16.11	2	1.11		
1 x/week	0	0	4	2.22	4	2.22		0.000
>1 x/month	0	0	48	26.66	4	2.22	76.67	
Others	0	0	4	2.22	2	1.11		
Total	21	11.67	107	59.44	52	28.89		
Months on follow-up								
<6 months	0	0	6	3.33	0	0		
6-11 months	0	0	20	11.11	10	5.55		0.009
12-60 months	15	8.33	37	20.55	28	15.55	17.20	
>60 months	6	3.33	44	24.44	14	7.77		
Total	21	11.67	107	59.44	52	28.89		

the match on the patient and putting the clothes in the mouth and positioning the patient accounts 6.67% and 53.33%, respectively [Table 6].

Discussion

Knowledge, attitude, and practice of patients towards a certain disease they conducted are important as they greatly determine the outcome especially for those diseases requiring lifelong therapy. The knowledge about epilepsy was found to be significantly associated to the duration of with epilepsy and months on follow-up. This might indicate that lack of adequate education by the health professionals concerning the disease before the commencement of therapy.

Various studies done to determine the knowledge of epilepsy have shown that people living with in different parts of the world and even those sufferers have poor knowledge regarding the cause, nature, and treatment of epilepsy.[6,10] But in this study, majority of the sufferers were able to demonstrate a good knowledge regarding cause 46 (21.5%) and treatment 108 (60%) of epilepsy. The figure is nearly the same to similar studies done in USA, Ohio where only 30% of the respondents know the cause of the disease.[11] But in much lower

Table 3: Attitude of epileptic patients towards their illness, Jimma University Specialized Hospital, June - July 2013

Variables	Attitude						X^2 test	*P*-value
	Positive		Negative		Uncertain			
	No	%	No	%	No	%		
Number of years with epilepsy								
<1 year	6	3.33	2	1.11	0	0		
1-5 years	55	30.55	14	7.77	9	5.00		0.091
6-10 years	29	16.11	9	5.00	12	6.66	13.67	
11-15 years	14	9.77	2	1.11	4	2.22		
>15 years	22	12.22	2	1.11	0	0		
Total	126	70.00	29	16.11	25	13.88		
Frequency of seizures								
Never	42	23.33	14	7.77	14	7.77		
1 x/month	33	18.33	6	3.33	5	2.77		0.235
1 x/week	4	2.22	2	1.11	2	1.11	10.40	
>1 x/month	41	22.77	7	3.33	4	2.22		
Others	6	3.33	0	0.00	0	0.00		
Total	126	70.00	29	16.11	25	13.88		
Months on follow-up								
<6 months	4	2.22	2	1.11	0	0.00		
6-11 months	21	11.66	6	3.33	3	1.66		0.101
12-60 months	45	27.22	17	9.44	14	7.77	10.6	
>60 months	52	28.88	4	2.22	3	4.44		
Total	126	70.00	29	16.11	25	13.88		

Table 4: Attitude of epileptic patients by their socio-demographic factors Jimma University Specialized Hospital, June - July 2013

Variables	Attitude						X^2 test	*P*-value
	Positive		Negative		Uncertain			
	No	%	No	%	No	%		
Age								
≤– 19	43	23.88	6	3.33	9	5.00		
20–35	67	37.22	13	7.22	16	8.88		
36–45	6	3.33	6	3.33	0	0.00	16.80	0.033
46–55	4	2.22	2	7.11	0	0.00		
≥55$^+$	6	3.33	2	1.11	0	0.00		
Total	126	70.00	29	16.11	25	13.88		
Sex								
Male	74	41.11	25	13.88	21	11.66		
Female	52	28.88	4	2.22	4	2.22	11.92	0.003
Total	126	70.00	29	16.11	25	13.88		
Religion								
Orthodox	20	11.11	4	2.22	2	1.11		
Muslim	92	51.11	23	12.77	21	11.66		
Catholic	0	0.00	0	0.00	2	1.11	16.80	0.010
Protestant	14	7.77	2	1.11	0	0.00		
Others	0	0.00	0	0.00	0	0.00		
Total	126	70.00	29	16.11	25	13.88		
Literacy status								
Illiterate	46	25.55	14	7.79	4	2.22		
Read and write	16	8.88	2	1.11	10	5.55	22.93	
Grade 1-8	39	21.66	8	4.44	11	6.11		0.003
Grade 9-12	21	11.66	5	2.77	0	0.00		
Grade 12$^+$	4	2.22	0	0.00	0	0.00		

(*Continued*)

Table 4: Continued

Variables	Attitude						X^2 test	*P*-value
	Positive		Negative		Uncertain			
	No	%	No	%	No	%		
Total	126	70.00	29	16.11	25	13.88		
Marital status								
Single	63	35	10	5.55	19	10.55		0.015
Married	57	31.66	19	10.55	6	3.33	12.29	
Divorced	6	3.33	0	0.00	0	0.00		
Widowed	0	0.00	0	0.00	0	0.00		
Total	126	70.00	29	16.11	25	13.88		
Occupation								
Merchant	2	1.11	0	0.00	0	0.00		
Governmental Emp.	4	2.22	4	2.22	0	0.00	19.8	
Housewife	4	2.22	2	1.11	0	0.00		0.071
Farmer	60	33.33	18	10.00	14	7.77		
Student	35	19.44	3	1.66	9	5.00		
Non-workers	13	7.22	2	1.11	0	0.00		
Others	8	4.44	0	0.00	2	1.11		
Total	126	70.00	29	16.11	25	13.88		
Income (in birr)								
<100	96	53.33	13	7.22	21	11.66		
101-200	18	10	12	6.66	0	0.00		
201-300	4	2.22	0	0.00	0	0.00		0.000
301-400	4	2.22	0	0.00	0	0.00	30.19	
>401	4	2.22	4	2.22	4	2.22		
Total	126	70.00	29	16.11	25	13.88		
Ethnicity								
Oromo	90	50	25	13.88	21	11.66		
Amhara	12	6.66	0	0.00	2	1.12		
Tigree	2	1.11	2	1.11	0	0.00	15.4	
Gurage	0	0.00	0	0.00	0	0.00		0.120
Keffa	4	2.22	0	0.00	2	1.11		
Yem	10	5.55	2	1.11	0	0.00		
Others	8	4.44	0	0.00	0	0.00		
Total	126	70.00	29	16.11	25	13.88		

Table 5: Knowledge of epileptic patients about cause and nature of epilepsy, Jimma University Specialized Hospital, June - July 2013

Statement	Yes		No		Total	
	No	%	No	%	No	%
Epilepsy is caused by evil spirit	12	6.67	168	93.33	180	100
Epilepsy is punishment from sin and from God by its curse	18	10	162	90	180	100
Epilepsy is a form of insanity	4	2.22	176	97.77	180	100
Epilepsy can be transmitted through contact	4	2.23	176	97.77	180	100
Epilepsy is hereditary	8	4.45	172	95.55	180	100
Epilepsy is caused by brain damage	46	25.56	134	74.44	180	100
Epilepsy is caused due to severe hunger	12	6.67	168	93.33	180	100
Epilepsy is caused due to high stress and over teaching (angry)	8	4.44	172	95.55	180	100
I don't know the cause of epilepsy	58	32.22	122	67.77	180	100
Others	10	5.55	170	94.44	180	100

Table 6: Practice of epileptic patients during seizure attack, Jimma University Specialized Hospital, June - July 2013

Measures	Yes		No		Total	
	No	%	No	%	No	%
Praying	0	0	180	100	180	100
Lighting on match	20	11.11	160	88.88	180	100
Putting clothes in mouth	12	6.67	168	93.33	180	100
Positioning the patient	96	53.33	84	46.66	180	100
Nothing done	42	23.33	138	96.66	180	100
Don't know	10	5.55	170	94.44	180	100

as compared with the study in Zambia which is high as 75% after an intervention from the initial 23.5%.[12] Though the figure of the study took the upper hand, the figure are very small with regard to Zambia; ideally almost all the patients are expected to have a good knowledge concerning the treatment of the disease but less regarding with the cause disease they are suffering from. So, the numbers more or less go with the trend of many countries where poor knowledge predominate.[6,10] Attitude plays an important role in the well-being of the patients as well as the overall of success of therapy. Regarding attitude, 126 (70%) of the respondents have a positive attitude, 29 (16.11%) of the respondents have a negative attitude while the remaining 25 (13.8%) were uncertain. The number of patients with positive attitude is extremely greater than the of negative and uncertain's in combination. As epilepsy imposes serious burden on its sufferers which is mostly reflected as psychological compliant, the attitude should be worked on.[9]

There was a statically significant association between attitude and age, occupation, marital status, monthly income, ethnicity of epileptic patients. These aged 20-35 (53.33%), single (51.11%), with monthly income less than 100 birr (72.2%), Oromo (75.5%) were found to good attitude towards epilepsy.

The way in which one copes with epilepsy is an important determinant[13] besides the knowledge and attitude, the practice of patient is as much important. In this study, majority of the patients, 170 (94.4%), were with good compliance as they strictly adhere to the instructions given by the health professionals. The in accessibility of health facilities with epileptic clinics poses a major threat to the adherence level.

On the contrary to the above good practice 3.3% of the respondents used other modes of treatment, i.e., spiritual treatment, prayers, and holy water in addition to modern medication. This study figure showed very lower than the study from urban centers in Nigeria where only 33% of the patients preferred to combine medical treatment with traditional modes of treatment.[14] This figure showed that the respondents have much more knowledgeable than that urban centers of Nigeria concerning modern medication used.

Regarding first aid measure to be taken for seizing patients, 53.3% of the respondents suggested correctly positioning the patients to prevent aspiration. This finding is comparable with the study conducted in Ohio, USA where 41% of the study subjects believed it is appropriate to place an object in the patient's mouth during seizure to prevent injury.[11]

Strengthen the communication between physicians and hospital pharmacy coordinator, and pharmacist who dispense drugs for epileptic patients must be necessary. If the gap between the above concerned bodies developed, the problem of medication discontinue cannot be reduced as well, moreover, they have worked for the benefit of the patients when the patients are not properly hospitalized, their attitude towards have taken the medication changed. On the long run, this condition made them to take traditional medication rather than the modern one.

Conclusion

From the study undertaken, it was found that the majority of the respondents have fair knowledge about the cause and nature of epilepsy and its treatment and about the first aid measures to be given to seizing patients. The majority of the respondents have positive attitude towards the disease. The majority of the respondents have tried modern modes of treatment. Traditional and religious treatment, i.e., spiritual treatment, prayers, and holy water are still practiced. A statistically significant association was found between knowledge and literacy status which implies that with an increasing level of formal educations, a knowledgeable society with a more positive attitude towards epilepsy can be expected.

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