



ST PAUL'S HOSPITAL MILLENNIUM MEDICAL COLLEGE

SCHOOL OF MEDICINE

PUBLIC HEALTH DEPARTMENT

**KNOWLEDGE ATTITUDE AND PRACTICE OF EPILEPTIC
PATIENTS TOWARDS THEIR ILLNESS AND TREATMENT IN
AMANEUL MENTAL SPECIALIZED HOSPITAL EPILEPTIC
CLINIC**

BY: - DR. INTISAR JEMAL (INTERM)

ID NO: - MMR/0077/05

**PUBLIC HEALTH ADVISOR: -MRS. SISAY TANIE (MSC,
BIOSTATISTICS)**

CLINICAL ADVISOR:-DR. DEJENE (NEUROLOGIST)

JULY, 2018

ADDIS ABABA, ETHIOPIA



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**A STUDENT RESEARCH REPORT TO BE SUBMITTED TO THE
DEPARTMENT OF PUBLIC HEALTH, SPHMMC, IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF DOCTOR OF MEDICINE.**

JULY, 2018

ADDIS ABABA, ETHIOPIA

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List of abbreviation

WHO World Health Organization

CSA Central Statistics Agencies

AED Anti-Epileptic Drugs

PWE People With Epilepsy

QOL Quality Of Life

OPD Out Patient Department

KAP Knowledge Attitude Practice

WK Week

YR Year

AMSH Amaneul Mental Specialized Hospital

SUMMARY

Background

Epilepsy is a major public health problem and especially in a developing country like Ethiopia its incidence is much higher. It's the most common serious brain disorder. In these countries knowledge towards this illness is usually thought to be from supernatural happenings and patients are subjected to social discrimination and prejudice.

Objectives

The objective of this study was to assess the knowledge, attitude and practice of epileptic patients towards their illness and treatment in Amanuel Mental Specialized Hospital.

Methods

A descriptive cross sectional hospital based study was conducted among patients with epilepsy follow up at epilepsy clinic from April-May 2018. Data was collected based on interviewer administered questionnaire. And data entered into a computer and analyzed using SPSS version 21.0 statistical software. Frequency tables, graphs, diagrams and charts being used.

Results

A total of 338 epileptic patients, on follow up clinic at AMSH, were interviewed out. Among them 171(50.6%) were females and 166(49.1%) were males. The minimum age of the participants is 18 and maximum 55. A total of 62.2% and 70% of the respondents have knowledge about the cause and treatment of epilepsy, respectively. And 44.4% of the patients had positive attitude towards their illness and 61.8% of the respondents suggested correct positioning of patients during seizure to prevent aspiration and majority of the patients said they seek treatment from a medical doctor.

Conclusion

The study has showed majority of the patients had fair knowledge regarding their illness and better practice as they know what first aid measure should be undertaken for a seizing patient and they seek medical help. Most of the respondents had negative attitude towards their illness.

Key words

Epilepsy, Knowledge; Practice; Attitude; Seizure.

1. Introduction

1.1 Background

Epilepsy is one of the most widely recognized health conditions, but one that's poorly understood amongst the society. It's also one of the oldest recorded medical conditions, described by Hippocrates more than 3500 years ago, and recognized by the Ayurvedic system of medicine in India for over 20 centuries. The word epilepsy is derived from the Greek term epilambanein meaning to be seized or to be overwhelmed by surprise.⁽³⁾

Historically public health policy and priority have been based on mortality statistics. However this statistics don't adequately reflect the burden from non-fatal conditions, such as neuropsychiatric disorders which can cause a substantial amount of suffering during a life span. The estimate burden from mental and neurological disorders is huge when disease burden measurement includes year's lived with disability.⁽³⁾

Chronic non-communicable disease is an increasingly important health care problem in developing countries. Amongst which neuropsychiatry disorders account for more than a quarter of the global burden of disease and requires due attention.⁽²⁾ Despite global advances in modern medicine, epilepsy continues to be surrounded by myths and misconceptions.

Epilepsy is basically a chronic brain disorder characterized by recurrent derangement of the nervous system due to sudden excessive disorderly discharge of cerebral neurons that result in almost instantaneous disturbance of sensation and loss of consciousness. It accounts as one of the major causes of morbidity and mortality. According to the 2012 WHO factsheet, Epilepsy affects 50 million people worldwide.⁽¹⁰⁾ With a worldwide prevalence varying from 2.8-19.5 per 1,000.⁽⁴⁾

In developing countries like ours its high incidence rate of around 80% makes it our top prioritized public health problem urging a strong and steady action to be enforced towards the better outcome for those suffering from this debilitating condition.^(1, 10) Not only because of its health implications on the sufferers but also for its social, cultural, psychological and economic impacts. The lack of knowledge towards epilepsy has led to negative attitudes. It's a key determinant of quality of life.

1.2 Statement of the problem

Epilepsy is traditionally looked upon as caused by ancestral spirits or even worse attributed to possession by evil spirits. It's also thought to be due to witch craft and poisoning that's thought to be contagious and brought up on one as a punishment unleashed for one's evil deeds. It's associated with debilitating social and psychological impacts contributing to the devastation of lives and never ending misery to those inflicted by the condition. Previous studies suggest that there is direct relationship between knowledge of the disease and patients developing coping mechanism. Misconceptions and deficits in knowledge have implications on both psychological wellbeing and medical compliance.

In many parts of Africa, synergistic amalgamation of indigenous traditions with judeo Christians doctrines unfenced popular attitudes towards epilepsy.⁽²⁾ In a community based study done in the rural parts of Ethiopia with a net population of 60,000 between the years 1986-1988 showed epilepsy was the most common cause of neurologic disability with prevalence of 5.2/1000.^(8,9) Another study conducted back in 1998 in the north west Ethiopia with estimated population of 25,000 found similar prevalence of 5.3/1000.⁽¹²⁾

WHO estimates that in Africa 80% of PWE don't receive treatment particularly those who are disadvantaged and marginalized despite the availability of effective drugs like phenobarbitone that are widely available. With potential reasons ranging from lack of awareness regarding one's illness, negative attitudes and beliefs, to being stigmatized and inaccessibility of medical services.⁽⁵⁾

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. This research will help towards designing interventions to bridge the gap in knowledge, Attitude and practice.

1.3 Significance of the study

The rationale behind conducting this research is mainly to assess the knowledge, attitude and practice of epileptic patients towards their illness and its treatment. The other is to document the extent of the problem and give baseline information. A necessary first step to increasing the knowledge and changing attitudes is to assess what one already knows. Gauging the knowledge attitude and practice of epileptic patient is the first measure towards alleviating the discrimination and prejudice. It will also aid in planning future researches on this aspect. The other is to encourage those concerned including the government officials, organizations for interventions that include extension of services. Thus it will help in training sufferers on their practice, Spreading knowledge regarding epilepsy to those living with the disorder and the public at large and in turn changing attitudes.

2. Literature review

2.1 Global studies

A hospital based cross sectional study was done in Ohio state university, college of medicine in order to assess epileptic patients' knowledge towards their disorder. There were 220 participants. The average age and number of years with epilepsy was 34.7 ± 13 and 14.4 ± 13.1 respectively. 30% of the respondents believed epilepsy is a mental disorder and 41% believed it's appropriate to place an object in a patient's mouth during seizure to prevent injury. Two of the lowest scores pertained to legal issues of driving and employment respectively.

A hospital based cross sectional study done in tertiary hospital in Delhi, India included 120 people with epilepsy attending the neurology outpatient services of institute of human behavior and allied sciences. Demographic details and responses to a questionnaire assessing the KAP were recorded. It showed 94% of the patients had heard of epilepsy, 91% knew that epilepsy can be treated with modern drugs. Negative attitude was reflected in the belief that epilepsy is due to supernatural powers 16%. Positive attitude was observed with respect to allowing a child with epilepsy to study 80%, not objecting to playing with other children 95%, marriage 89%, and having children 92 %.⁽⁷⁾

A cross sectional hospital based study was conducted involving 132 respondents on Assessment of knowledge, attitude and practice of epileptic patients towards their illness and treatment in a tertiary care hospital in Kuantan Pahang, Malaysia. Among the respondents 51.5% were male and 48.5% were female. With mean age of 31.6, median number of years they had epilepsy was 8.0 with a range of (4.0-18.8), and average number of years they were receiving treatment from a hospital was 5.50. Most (90.9%) didn't know the cause of epilepsy. However 93.9% were aware epilepsy can be treated with modern drugs. 22.7% believed health healers can treat epilepsy and 74.2% tried other forms of treatment. Negative attitude was reflected in the belief that epilepsy is caused by supernatural powers (1.5%), and epilepsy is contagious (17.4%). Positive attitudes included PWE can take job (66.7%), allowing child to play with epileptic pt. (54.5%), allowing relatives to get married (65.9%) and having children (58.3%).⁽²⁵⁾

A cross sectional study was done in Pakistan involving 270 undergraduate medical students to assess KAP on epilepsy. 85.1% consider epilepsy to be neurologic disorder, 6.66% believe its

infectious disease, 4.44% believed it to be hereditary. 56.6% considered multiple drug therapy as form of treatment, spiritual treatment by 3.7%, spiritual treatment with medication by 20%, surgical treatment by 17.4% and 2.22% deemed epilepsy to be self-limiting disease⁽¹⁰⁾

2.2 Studies in Africa

A descriptive cross- sectional community based study done in Khartoum Sudan on KAP towards epilepsy among relatives of epileptic patients. One third mentioned a brain lesion as the underlying cause of epilepsy. Most of the respondents mentioned loss of consciousness as the major symptom. More than two thirds mentioned that it's not contagious. Most of the respondents claimed that it can be controlled, and two thirds preferred medical treatment. The study revealed that half of the respondents had shown favorable attitudes and practice towards epilepsy.⁽⁴⁾

A descriptive cross sectional study was done in Enugu, South East Nigeria on knowledge, attitude and practice of epilepsy among community residents. Results being mean score of knowledge as low as $48.1 \pm 18.8\%$; higher in females ($50.6 \pm 18.6\%$) and those who witnessed seizure in the past. Majority associated the cause of epilepsy to hereditary. On attitude 61.8% of the respondents accepted that it's right if sufferers married; 42.8% said epileptic pts shouldn't have children and 57.2% wouldn't allow their children to play with them. There was no significant association between level of education and attitude score. Only 24.1% said they would call the attention of a health worker and only 55.2% consider doctors as the appropriate professionals to manage epilepsy. 27.9% endorsed traditional and spiritual healing as the most appropriate management of epilepsy.⁽³⁰⁾

2.3 Studies in Ethiopia

Cross sectional hospital based studies conducted among patients with epilepsy on follow up at epileptic clinic at Jimma hospital in 2013. A total of 180 epileptic patients, on follow up clinic, were interviewed out. A total of 25.5% and 60% of the respondents had knowledge about the cause and treatment of epilepsy respectively. And 70% of the respondents had positive attitude towards their treatment. About 53.3% of the respondents suggested correcting positioning of the patients during the seizure to prevent aspiration. The study showed that the majority of the respondents have medium knowledge and better attitude towards epilepsy and its treatment, and medium knowledge about first the first aid measures to be taken for seizing patient.⁽²⁾

A cross sectional study was done on 391 students to assess KAP towards epilepsy in four preparatory school students in Mekelle, Northern Ethiopia. It used semi-structured questionnaire. With outcomes being 85.7% of them hearing about epilepsy, 19.23% had read on the subject, 67.03% had known someone with epilepsy and 57.14% had witnessed a seizure. Those who would offer equal employment opportunities to people with epilepsy, refuse to associate with, or refuse to marry PWE represented 64%, 16.8% and 44.8% respectively. Negative attitudes seemed to be enforced by beliefs that epilepsy is evil spirit 33.24%, contagious 28.6% or kind of insanity 51.6%. Majority of respondents opted for Holy water 70.33%, followed by physician's 64.01%, traditional healer 44.78% and prayers 32.14%. Thus study revealed KAP towards epilepsy was limited. ⁽¹⁾

Another cross sectional study was done on 660 respondents to assess KAP towards epilepsy and its associated factors in Sululta Woreda, Oromia, Ethiopia. ⁽¹¹⁾ Using a pretested semi structured questionnaire. Resulting in 59.8% of respondents possessing knowledge about epilepsy, 35.6% had favorable attitude and 33.5% of them adopted safe practice related to epilepsy. Following factors showed significant association to knowledge, attitude and practice; rural dwellers, single, educated, heard information about epilepsy, and history of epilepsy. Overall the study revealed that relatively there was promising knowledge of epilepsy despite unfavorable attitude and unsafe practice. ⁽¹¹⁾

3. Objectives of the study

3.1 General objective: -

- To assess the knowledge attitude and practice epileptic patients have towards their illness and treatment.

3.2 Specific objective: -

- To assess knowledge of each epileptic patient has towards their illness and its course.
- To assess each epileptic patient's attitude towards their illness.
- To assess the practice of epileptic patients regarding the primary aid that needs to be given during seizure attacks.

4. Methodology

4.1 Study area

The study was conducted on a data that was obtained from Amanuel Mental Specialized Hospital, Addis Ababa. Addis Ababa is a city in central Ethiopia, which is a capital city of Ethiopia. Geographically it is located between the latitude and longitude of 9°1'48"N 38°44'24" E with an elevation 2355 meters above sea level. The total population of Addis Ababa is 3,384,569. Amanuel hospital was one of the most pioneer mental health institutions in Ethiopia. Established in 1965. There is an adult epileptic clinic that works 5 days per week in 2 opd's and each see around 100 patients daily with approximately 4000 patients seen monthly.

4.2 Study Design

A Cross sectional hospital based study was carried out for the attainment of the above mentioned study objective and to meet the constraints of resource, man power and time.

4.3 Source population

The primary population's sources of the study are the epileptic patients on follow up at Amanuel Mental Specialized Hospital Neuropsychiatry Clinic.

4.4 Study population

Patients who come for follow the epileptic clinic between March and May 2018 for follow up for epilepsy and those who fulfill the inclusion criteria.

4.5 Inclusion and exclusion criteria

4.51 Inclusion criteria

All patients already diagnosed by Psychiatrist as having epilepsy and on regular follow up.

4.52 Exclusion criteria

Patients who are aphasic or unable to speak due to major cognitive impairment or intellectual disability

Those patients who were having active seizures at the time of the study

Those patients whose are less than 18 years of age.

4.6 Sampling and Sample size determination

To determine the sample size for this study, a single proportion formula was used. According to a study done in Jimma University specialized hospital regarding knowledge attitude and practice of epileptic patients towards their illness and treatment their attitude ; hospital based study, found that the comprehensive practice of epileptic patients was 60%, Attitude(70%) and knowledge (62%) . Each was calculated and the number that resulted in higher sample size was taken thus (p=0.6) was taken, in addition 95% confidence interval level with margin of error of 5% (d=0.05) was used.⁽²⁾

$$n = \frac{\left(Z \frac{\alpha}{2}\right)^2 p(1-p)}{d^2}$$

z= standard score corresponding to 95% confidence interval=1.96

p= 0.6

d= the margin of error (precision) =0.05

n= the required sample size

$$n = \frac{(1.96)^2 0.6(1-0.6)}{0.05^2} = 368.79$$

Since the study population was defined, it was calculated using correction formula as follows:

$$n_f = \frac{n_0}{\left(1 + \frac{n_0}{N}\right)}$$

Where, n_0 = the sample size from an infinite population,

N=finite population size which is 4000 patients in 1 month.

$$n_f = \frac{368.7}{\left(1 + \frac{368.7}{4000}\right)} = 338$$

4.6.1 Sampling technique

A conventional sampling method was used for data collection.

4.7 Data collection tools

Standard and pretested interviewer administered questionnaire was used in this study.

4.8 Questionnaire development and data collection

The data collection instrument contained questions used to gather information about the socio-demographic factors, knowledge, Attitude and practice of epileptic patients. There were 7 questions to assess knowledge, 5 to assess attitude and 2 to assess practice.

4.9 Study Variables

The dependent variables in this study are the knowledge, attitude and practice of epileptic patients towards their illness and treatment. Among the independent variables were Socio-demographic factors such as age, sex, marital status, educational status, religion, occupation and residency; frequency of seizure; duration of seizure and follow up duration.

4.10 Data management and analysis

The completed questionnaire was checked for completeness and consistency by the principal investigator. Code was given to the completed questionnaire. The principal investigator entered the data using SPSS 21 statistical packages. Data cleanup was performed to check for, accuracy, consistencies, & values. Result was expressed in frequency table.

4.11. Data quality assurance

Standard questionnaire was adopted and administered from a research done in Jimma University. Prior to actual data collection, pre-testing was done on 5% of the study population. After the pre-test the questionnaire was checked for its clarity, understandability, completeness, reliability, consistency, sensitivity, time and pattern of response.

4.12. Standard definition

Epilepsy is a condition in which a person has recurrent seizures as two or more unprovoked seizures due to a chronic, underlying process thus referring to a clinical phenomenon rather than single disease entity.

Seizure is a paroxysmal event due to abnormal excessive or synchronous neuronal activity in the brain.

Follow up clinic: It is out patient review clinic for therapeutic assessment and treatment.

4.13. Operational definition

Knowledge: 7 major questions which have 9 correct answers [since 1 of the question has 2 answers], those who answer above the 50th percentile of the score are considered as knowledgeable. And those scoring below are not knowledgeable.⁽²⁾

Attitude: There will be 5 questions in this section to be answered. Respondents who answered at least 3 questions correctly will be considered as having positive attitude and those that scored ≤ 2 will be labeled as having negative attitude.⁽²⁾

Practice: study defines practice in epilepsy as good practice if respondents scored more $\geq 50\%$ and as poor practice for those who scored $\leq 50\%$.⁽²⁾

4.14. Ethical considerations

A formal ethical letter was obtained from St. Paul's hospital millennium medical collage ethical review board and Amanuel Specialized Mental Hospital. Strict confidentiality was assured through anonymous reading and avoiding patient identifying information. A prior informed consent of respondents was taken stating the purpose and benefits of the study and freedom of refusal to participate. Questionnaires were kept in a secure area once completed.

4.15. Dissemination of results

This finding of this study will be submitted to the public health office and neuropsychiatry departments. And also to the internet so it serves as online streaming reference for those who are in need. This study shall be presented on different seminars, meetings and workshops.

5. Result

A total of 338 participants were included in the study and all of them consented and completed the interview. The study subjects were comprised of 166(49.1%) males and 171(50.6%) females. The majority of the 175(51.8%) of the patients were in the age group between 20-35 years of age. The mean age was 24.1 and S.D of 17.57 and range from 19-55. The majority of the study subjects were (n=164) were orthodox (48.5%), and 115(34%) were Muslims, 98(29%) were unemployed and their monthly income is less than 500 ETB 176(52.1%). Majority of the study subjects were from Addis Ababa 188(55.6%). And most [167(49.4%)] of the participants in the study were single and majority [124(36.7%)] were illiterate.

Table 1 Socio-demographic and socio-economic variables of the study subjects in Amanuel Mental Specialized Hospital, Addis Ababa,

Variable		Frequency	Percent
Age	<19	17	5.0
	20-35	175	51.8
	36-45	81	24.0
	46-54	59	17.5
	>55	6	1.8
Sex	Male	166	49.1
	Female	171	50.6
Residency	A/A	188	55.6
	Urban	111	32.8
	Rural	39	11.5
Religion	Muslim	115	34
	Orthodox	164	48.5
	Protestant	52	15.4
	Others	7	2.1
Marital status	Married	149	44.1
	Single	167	49.4
	Divorced	11	3.3
	Widowed	11	3.3
Monthly income	<500	176	52.1
	500-1499	19.5	19.5
	1500-2499	84	24.9
	2500-5000	7	2.1
	>5000	5	1.5
Occupation	Farmer	53	15.7
	Civil servant	24	7.1
	Daily laborer	47	13.9
	Student	75	22.2
	Self-employee	19	5.6
	Merchant	22	6.5
	Unemployed	98	29
Education	Illiterate	124	36.7
	Grade 1-8	103	30.5
	Grade 9-12	68	20.1
	Certificate	18	5.3
	Diploma	14	4.1
	Degree	11	3.3

5.1 Study subject's knowledge on epilepsy

This part obtains information about respondents' knowledge on epilepsy and its treatment. Regarding the knowledge of the cause of epilepsy majority [211(62.4%)] of the respondents knew the cause of epilepsy and majority of the respondents (222, 65.7%) mentioned at least two signs of epilepsy. 213(63%) of the respondents think that epilepsy is treatable or curable disease. Almost all the respondents [327(96.7%)] answered that epilepsy is not infectious and [8(2.4%)] respondents said that epilepsy is transmittable disease

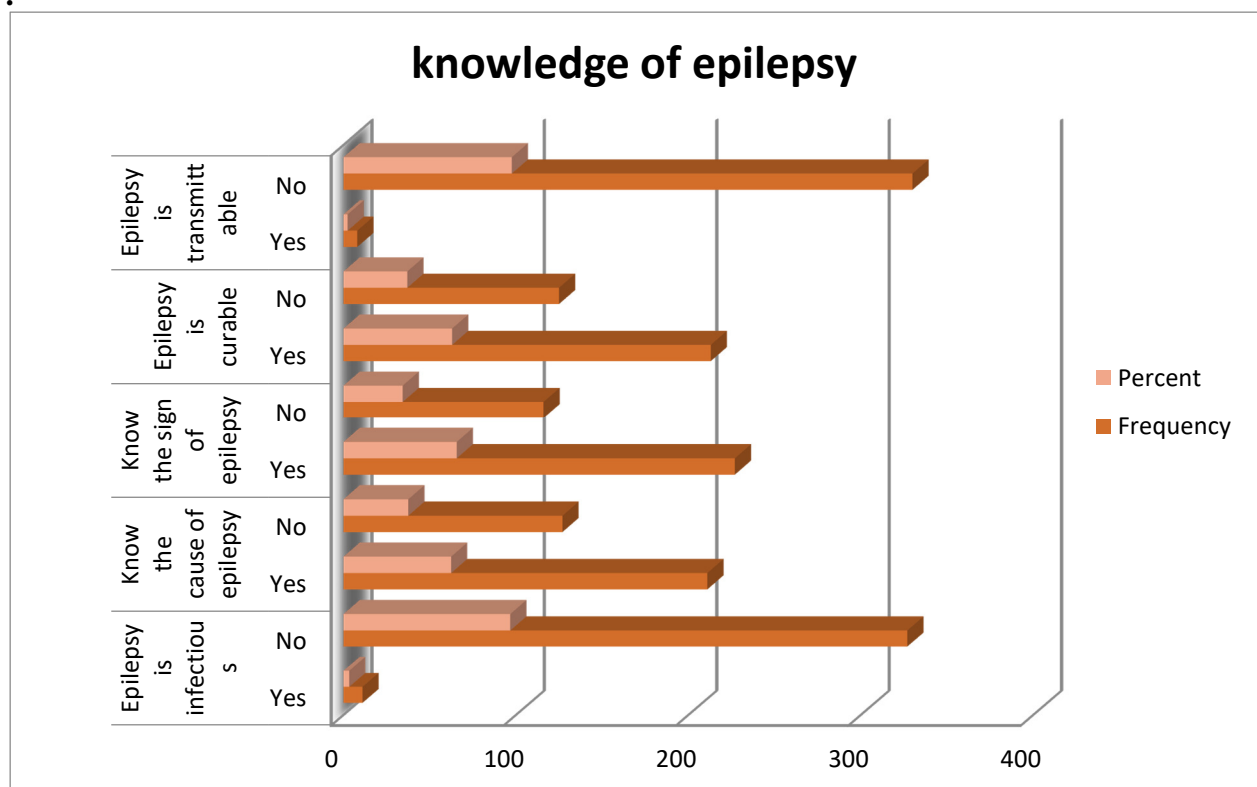


Figure 1 knowledge of epileptic patients

Regarding the aim of treatment of epilepsy, 243(71.9%) of the respondents said that medications decrease the frequency while 48(13.9%) of them said there was no change.

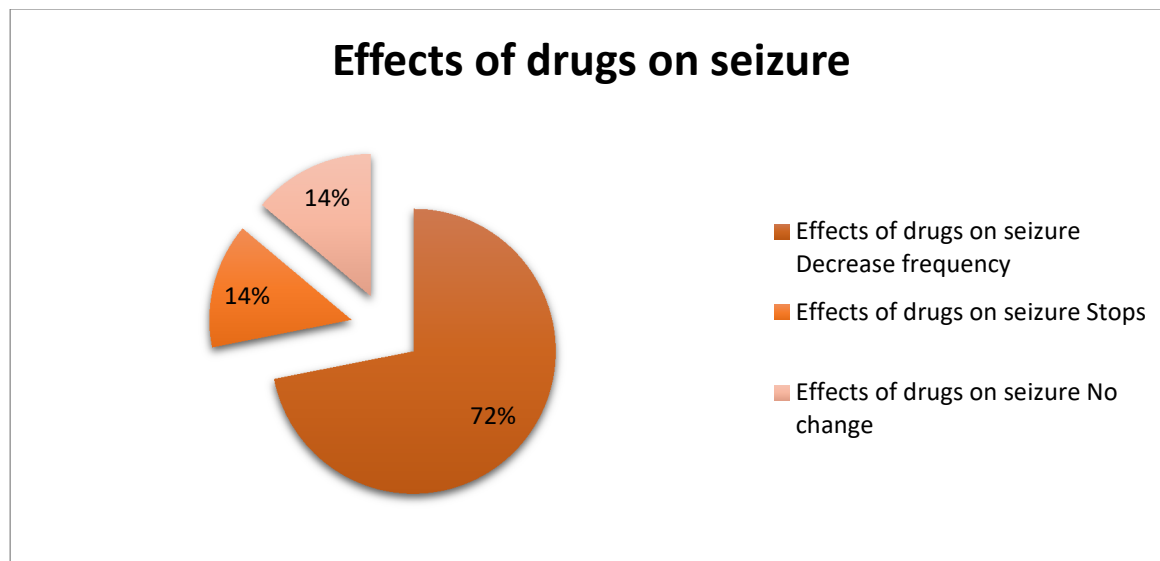


Figure 2 Knowledge about effects of drugs on epilepsy

The study showed 231(68.3%) of the respondents believed epilepsy is entirely cured by medications.

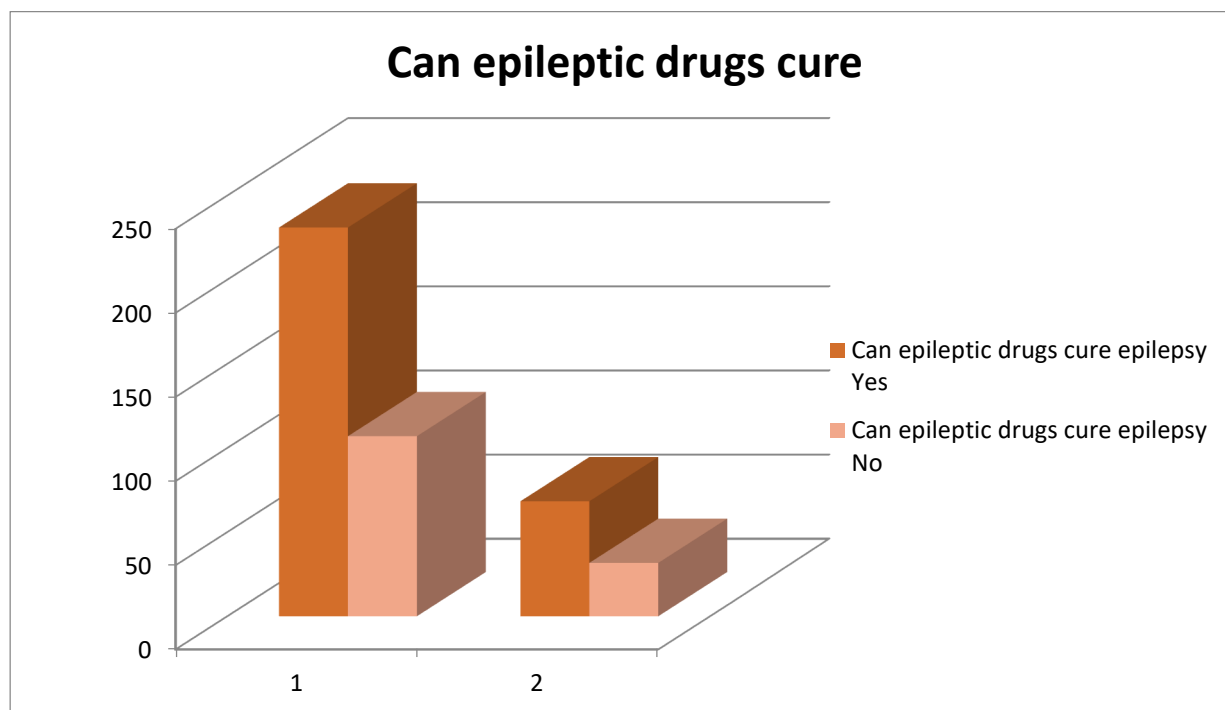


Figure 3 can epileptic medications cure epilepsy

Regarding the specific cause of epilepsy [142(42%)] correctly said it was a neurologic disease caused by brain damage. And [33(9.8%)] said it was hereditary while the rest of the respondents attributed the cause of epilepsy to other factors like stress [17(5%)], evil spirits [12(3.6%)] and punishment from God [8(2.4%)]

Table 3 knowledge of epileptic patients about cause and nature of epilepsy, AMSH, Addis Ababa, Ethiopia, 2018

Cause of epilepsy	Evil spirits	Yes	12	3.6
		No	330	96.4
	Punishment from God	Yes	8	2.4
		No	330	97.6
	Stress	Yes	17	5
		No	321	95
	Hereditary	Yes	33	9.8
		No	305	90.2
	Brain damage	Yes	142	42
		No	196	58
	Transmitted through contact	Yes	0	0
		No	338	100
	Others	Yes	5	1.5
		No	333	98.5

Table 4 summarizes results from cross tabulation showed that those who were unemployed, illiterate and living in the capital with poor income of <500ETB were not knowledgeable. And those living with epilepsy from 1-5years and who were on follow-up for the same duration were found to be more knowledgeable.

Table 4 Socio-demographic characters and knowledge of epileptic patients in AMSH, Addis Ababa, Ethiopia, April-May 2018.

		Knowledge score		X ² -test	p-value
Variables		Knowledgeable	Not		
Occupation	Farmer	22(13.4%)	31(17.8%)	20.064	0.003
	Unemployed	39(23.8%)	59(33.9%)		
	Civil servant	17(10.4%)	7(4%)		
	Merchant	8(4.9%)	14(8%)		
	Self-employed	16(9.8%)	3(1.7%)		
	Student	38(23.2%)	37(21.3%)		
	Daily laborer	24(14.6%)	23(13.2%)		
	Total	164	174		
Educational Status	Illiterate	47(28.7%)	77(44.3%)	16.284	0.006
	Grade 1-8	51(31.1%)	52(29.9%)		
	Grade 9-12	44(26.8%)	24(13.8%)		
	Certificate	9(5.5%)	9(5.2%)		
	Diploma	5(3%)	9(5.2%)		
	Degree	8(4.9%)	3(1.7%)		
	Total	164	174		
Residency	A.A	81(49.4%)	107(61.5%)	11.017	0.004
	Urban	68(41.5%)	43(24.7%)		
	Rural	15(9.1%)	24(13.8%)		
	Total	164	174		
No of years with epilepsy	<1year	5(3%)	40(23%)	35.112	0.000
	1-5year	102(62.2%)	91(52.3%)		
	5-10years	44(26.8%)	24(13.8%)		
	11-15years	11(6.7%)	14(8%)		
	>15years	2(1.2%)	5(2.9%)		
	Total	164	174		
Follow up	<1yr	5(3%)	60(34.5%)	64.645	0.000
	1-5yrs	104(63.4%)	79(45.4%)		
	6-10yrs	45(27.4%)	17(9.8%)		
	11-15yrs	10(6.1%)	18(10.3%)		
	Total	164	174		

5.2 Study subject's attitude towards epilepsy

In this study concerning attitude among the participants [150(44.4%)] had positive attitude towards epilepsy and 188(55.6%) had negative attitude. Among the respondents 69.5% of them wouldn't object if their child plays with an epileptic patient, and 90.5% of respondents don't think epilepsy is a form of insanity. 71% of the patients believe an epileptic patient should be offered the same job as others and 80.2% of them answered that epileptic patient should have children. From the respondents 55.6% of them would object if there relative was to marry someone who had epilepsy.

The overall attitude of individuals towards epilepsy was assessed by summing up the correct

answers of individual questions and those who scored more than 50th percentile of the correct answer was labeled as having positive attitude and those who scored less had negative attitude.

Table-5 Response of study subjects regarding attitude in AMSH, April-MAY, 2018

Variable		Frequency	Percent
Object if your child plays with epileptic pt.	Yes	103	30.5
	No	235	69.5
Object to your relative to marry epileptic pt.	Yes	188	55.6
	No	150	44.4
Epileptic pt. should have children	Yes	271	80.2
	No	67	19.8
Epileptic pt. employed the same job as others	Yes	241	71.3
	No	97	28.7
Is epilepsy insanity	Yes	32	9.5
	No	306	90.5

Table 6 summarizes results from cross tabulation showed that 38.7% of the patients found in the age group of 20-35 years, unemployed, and living within the capital with monthly income of less than 500ETB had a good attitude towards epilepsy. The association found from cross tabulation between attitude and number of years with epilepsy plus duration of follow up at AMSH epileptic clinic is statistically significant

Table-6 Attitude of epileptic patients by their socio-demographic factors towards their illness, AMSH, April-May, 2018.

		Attitude score		X ² -test	p-value
Variables		Positive attitude	Negative attitude		
Age	<19yrs	42(28%)	82(43.6%)	10.886	0.028
	20-35yrs	58(38.7%)	63(33.5%)		
	36-45yrs	28(18.7%)	21(11.2%)		
	46-54yrs	16(10.7%)	13(6.9%)		
	>55yrs	6(4%)	9(4.8%)		
	Total	150	188		
Occupation	Farmer	17(11.3%)	36(19.1%)	33.207	0.000
	Unemployed	47(31.3%)	51(27.1%)		
	Civil servant	8(5.3%)	16(8.5%)		
	Merchant	20(13.3%)	2(1.1%)		
	Self-employed	7(4.7%)	12(6.4%)		
	Student	39(26%)	36(19.1%)		
	Daily laborer	12(8%)	35(18.6%)		
	Total	150	188		
Educational Status s	Illiterate	49(32.7%)	75(39.9%)	21.284	0.001
	Grade 1-8	40(26.7%)	63(33.5%)		
	Grade 9-12	28(18.7%)	40(21.3%)		
	Certificate	14(9.3%)	4(2.1%)		
	Diploma	10(6.7%)	4(2.1%)		
	Degree	9(6%)	2(1.1%)		
	Total	150	188		
Residency	A.A	72(48%)	116(61.7%)	18.435	0.000
	Urban	67(44.7%)	44(23.4%)		
	Rural	11(7.3%)	28(14.9%)		
	Total	150	188		
Monthly income	<500	82(54.7%)	94(50%)	15.710	0.003
	500-1499	34(22.7%)	32(17%)		
	1500-2499	25(16.7%)	59(31.4%)		
	2500-5000	9(6%)	3(1.6%)		
	Total	150	188		
No of years with epilepsy	<1year	15(10%)	30(16.7%)	15.770	0.003
	1-5year	77(51.3%)	116(61.7%)		
	5-10years	35(16.3%)	33(17.6%)		
	11-15years	19(12.7%)	6(3.2%)		
	>15years	4(2.7%)	3(1.6%)		
	Total	150	188		
Frequency of seizure	Never	48(32%)	107(56.9%)	29.454	0.000
	1x/month	57(38%)	55(29.3%)		
	1x/week	10(6.7%)	3(1.6%)		
	>1x/week	0(0%)	3(1.6%)		
	Total	150	188		
Follow up	<1yr	25(16.7%)	40(21.3%)	21.197	0.000
	1-5yrs	70(46.7)	113(60.1%)		
	6-10yrs	32(21.3%)	30(16%)		
	11-15yrs	23(15.3%)	5(2.7%)		
	Total	150	188		

5.3 study subjects practice on epilepsy

In this study 63.3% of epileptic patients had good practice where as 36.7% of the respondents had poor practice. Regarding the measures taken during seizure attack, about 13% of them will use the method of lighting a match on the patient and 9.5% of them would put a piece of cloth or spoon in mouth. And positioning of the patient 61.8% and giving him his or her medications account for 22%, respectively. 7.1% of the respondents didn't know what they would have done.

Majority of the respondents said they would seek treatment from a medical doctor. The rest believed holy water (13%), and traditional healer (4.1%) would be of better help.

Table 7 – practice of epileptic patients during seizure attack n treatment, AMSH, Addis Ababa, April-May 2018

Variable			Frequency	Percent
First aid during a seizure Attack				
	Position patient	Yes	209	61.8
		No	129	38.2
	Put spoon or cloth in mouth	Yes	32	9.5
		No	306	90.5
	Giving medication	Yes	76	22.5
		No	262	77.5
	Smell matchstick	Yes	44	13
		No	294	87
	Do nothing	Yes	6	1.8
		No	332	98.2s
	I don't know	Yes	24	7.1
		No	314	92.9
What mode of treatment do you use?				
	Traditional healer	Yes	14	4.1
		No	324	95.9
	Holy water	Yes	44	13
		No	293	86.7
	Witch craft	Yes	1	0.3
		No	337	99.7
	AED	Yes	302	89.3
		No	36	10.7
	Others	Yes	9	2.7
		No	329	97.3

Table 8 summarizes the result of cross tabulation showed those who were under the age of 19 and illiterate had poor practice. And there was significant statistical association between practice and those who had epilepsy for longer duration and those who haven't had recent seizure episode and who have been on follow up at epileptic clinic for a longer period of time had good practice.

Table 8- practice of epileptic patients towards their illness and treatment with their socio-demographic factors, AMSH, April-May 2018.

Variables		Good practice	Poor practice	X ² -test	p-value
Age	<19yrs	71(33.2%)	53(42.7%)	11.571	0.021
	20-35yrs	85(39.7%)	36(29%)		
	36-45yrs	25(11.7%)	24(19.4%)		
	46-54yrs	20(9.3%)	9(7.3%)		
	>55yrs	13(6.1%)	2(1.6%)		
	Total	150	188		
Educational Status	Illiterate	71(33.2%)	53(42.7%)	20.279	0.001
	Grade 1-8	74(34.6%)	29(23.4%)		
	Grade 9-12	46(21.5%)	22(17.7%)		
	Certificate	13(6.1%)	5(4%)		
	Diploma	9(4.2%)	5(4%)		
	Degree	1(0.5%)	10(8.1%)		
	Total	214	124		
No of years with epilepsy	<1year	24(11.2%)	21(16.9%)	24.239	0.000
	1-5year	140(65.4%)	53(42.7%)		
	5-10years	38(17.8%)	30(24.2%)		
	11-15years	7(3.3%)	18(14.5%)		
	>15years	12(5.6%)	20(16.1%)		
	Total	214	124		
Frequency of seizure	Never	122(57%)	33(26.6%)	43.564	0.000
	1x/month	68(31.8%)	44(35.5%)		
	1x/week	3(1.4%)	10(8.1%)		
	>1x/week	1(0.5%)	37(29.8%)		
	Total	214	124		
Follow up	<1yr	35(16.4%)	30(24.2%)	30.603	0.000
	1-5yrs	133(62.1%)	50(40.3%)		
	6-10yrs	40(18.7%)	22(17.7%)		
	11-15yrs	6(2.8%)	22(17.7%)		
	Total	214	124		

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 epilepsy and months on follow up. This might indicate that lack of adequate education by the health professional concerning the disease before the commencement of therapy.

There are various studies done to determine the knowledge of epilepsy and have shown that people living with in different parts of the globe and even those living in the developing countries showed that they had poor knowledge regarding the cause, nature and treatment of epilepsy.

But in this study most of the patients who suffer from epilepsy demonstrated a good knowledge regarding the cause of epilepsy 211(62.4%) and treatment 243(71.9%) of epilepsy. This figure is nearly the similar to a study done in Ghana which is as high as 75% after an intervention from the initial 23.5%.⁽²⁶⁾ But in much higher figure as compared with the study done in Malaysia in which 90.9% of the respondents didn't know the cause of epilepsy and also another research done in Jimma University specialized hospital were only 21.5% of the patients knew about the cause of epilepsy ⁽²⁾and similarly was found higher than a study done in USA, Ohio were only 30% of the respondents knew the cause of epilepsy.^(25,2,27) Regarding the treatment of epilepsy 60% of the patients at Jimma University were found to be knowledgeable which is similar to this study but significantly lower than in Malaysia(93.9%).⁽²⁵⁾ Ideally almost all patients are expected to have good knowledge concerning the treatment of the disease but less regarding with the cause of the disease they are suffering from. So the numbers more or less go with the trend of, many countries where poor knowledge dominates.

Attitude plays an important role in the general well-being of the patients as well as the overall success of therapy. Regarding attitude, 55.5% of the respondents had negative attitude whereas the remaining 44.4% had positive attitude. This figure shows that the patients with negative attitude towards their illness are significantly greater than those who had positive attitude. A similar study was conducted in Jimma University that showed 70% of its respondents had

positive attitude towards epilepsy which is higher than the values we got at AMSH. ⁽²⁾ In a research done in Malaysia among the respondents 66.7% said an epileptic patient should be employed the same job as others, 54.5% said they wouldn't object to their children to play with PWE, 58.3% agree that a pt. with epilepsy should have children and 65.9% of the respondents would disagree for their relative to marry PWE. The above results are slightly similar to our study were 71.6% of our respondents agreed that an epileptic pt. should have the same job as others, and higher values for those who won't object to their children playing with epileptic pt. (69.5%) and PWE having children (80.2%). ⁽²⁵⁾ Patients with epilepsy are stigmatized and considered inferior in some cultural beliefs thus imposing a serious burden on its sufferers that is mostly reflected by psychological compliant. Thus the attitude should be worked on with greater effort and given due attention.

There was a statistically significant association between attitude and age, occupation, monthly income, residency, religion, number of years with epilepsy, frequency of seizure and duration of follow up. These age group 20-35 years (38.7%), living in Addis Ababa (48%), earning less than 500 ETB (54.7%), unemployed (31.3%), who are living with epilepsy for 1-5 years (), and on follow up for more than 1 year (46.7%) were found to have good attitude towards epilepsy.

The way one copes up with his or her illness is an important determinant besides the knowledge and attitude that the patient has towards his condition. In this study majority of the patients, 63.3% had good practice and good compliance as they strictly adhere to the instructions and medications given by the health professional. The inaccessibility of health facilities with epileptic clinics, the stigma within the society and other similar factors pose a threat for adherence level and in turn affect patients practice. On the contrary to the above good practice 17.1% of the respondents used other modes of treatment i.e. spiritual treatment, traditional healers and holy water in addition to modern treatment. This figure showed lower than the study from urban centers in Nigeria where 27.9% of the patients preferred to use traditional and spiritual modes of treatment.

This shows that the respondents in this study are much more knowledgeable about their practice than that of urban centers of Nigeria. Despite this the finding is still higher than the values found in Jimma University where only 3.3% of the respondents used other means of treatment in addition to modern medications. ^(29, 2)

Regarding first aid measure to be taken for a seizing patient, 61.8% of the respondents suggested correctly positioning the patients to prevent aspiration. This finding is comparable with the studies done in Jimma University and Ohio,USA were 53.3% and 41% of the study subjects believed it was appropriate to correctly position patient and place hard objects in patients mouth to prevent aspiration respectively.^(2,27)

It's crucial step to take a lead in initiating communication between physicians, epileptic patients and pharmacists who dispense the drugs. If the above gap between the above concerned bodies developed, the problem of drug discontinuation will only be on the rise. And often aren't properly hospitalized thus influencing their attitude towards taking their medications. On the long run this led to prefer traditional means of treatment over medical management.

7. Conclusion

From the study undertaken, it was found that majority of the respondents had fair knowledge about the cause and nature of epilepsy, its treatment, first aid measures taken towards a seizing patient and from whom they would seek treatment. Majority of the respondents had negative attitude towards epilepsy and most of them tried modern modes of treatment. Traditional and religious treatment i.e. spiritual treatments, prayers and holy water use are still practiced. A statistically significant association was found between knowledge, attitude, practice and educational status thus implies that with an increasing level of formal education, a knowledgeable society with more positive attitude and good practice towards epilepsy can be expected. And another statistically significant association is between KAP and number of years with epilepsy and follow up thus much work needs to be done in shedding light upon the cause, nature and treatment of the patients towards their illness while visiting the hospital. Leading to an era of patients who are knowledgeable enough to change the way epilepsy is viewed around the globe.

8. Recommendation

Based on this study it's recommended that more work should be put into teaching epileptic patients about their illness and also educating the masses.

For AMSH

Epileptic patients coming to the OPD outnumber the attending physicians. Thus it's necessary to increase the number of clinical nurses, psychologist and clinicians so as to give optimum care for the patients. I also recommend teaching lessons to be prepared at the waiting area for patients and also practical sessions for patients to have a better practice.

For policy makers

There are very few epileptic clinics situated around Ethiopia demanding patients to travel miles away in order to seek medical care and to refill their medications. Thus increasing the amount of epileptic clinics is crucial.

For practicing clinicians

Professionals must receive additional training on epilepsy and patient care. The patient doctor relation should strengthen by good communication and enlighten the patient and his family upon their condition and progress. Brief pep talks and seminars should be given in both urban and rural areas of Ethiopia in order to create a positive attitude and to provide first aid care for a seizing patient. Physicians share their knowledge regarding epilepsy in words that will enable patients to understand more and give practical sessions in giving first aid measures for patients.

For future research

I recommend more studies with this regard so we could know more about epilepsy and patients practice in a larger scale.

9. Limitations of the study

1. Time constraints – more accurate information on practice from a prospective follow-up of patients.
2. Local works on KAP of epilepsy are limited; therefore, few locally conducted studies were reviewed.
3. The data collected may not be accurate as it relied on self-reported answers.
4. The sampling method used in the research will not allow as to generalize.

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11. ANNEX

**St, Paul's Hospital Millennium Medical College
Department of Public Health
Questionnaire**

Consent

My name is Intisar Jemal, a final year medical student in under graduate program of medicine at SPHMMC. I am going to ask you the following questions to find out the knowledge, attitude and practice of epileptic patients towards their illness and treatment. The purpose of this study is to get more information about the attitude and practice of epileptic patients and to see the level of knowledge they have towards their illness. Therefore, your honest and genuine participation by responding to the questions prepared is highly appreciated and helpful to attain the objective of the study.

Your name will not be written on this form and no individual response will be reported to anybody. Hence, your answers are completely confidential. You do not have to answer any question that you don't want to answer and you may refuse to answer all of the questions.

Please, if you cooperate by responding to the questions it means that you have your own contribution to the success of this study.

Would you willing to answer?

If yes, proceed to the next page

If no, please stop here.

Thank You!

No	Questions	Coding categories
Socio-demographic questions		
1.	Age in years	
2.	Sex	☐ Male ☐ Female
3.	Marital status	☐ Married ☐ Single ☐ Divorced ☐ Widowed
4.	Occupation	☐ Farmer ☐ Civil servant ☐ Daily laborer ☐ Student ☐ Self-employee ☐ Merchant ☐ Unemployed
5.	Religion	☐ Muslim ☐ Orthodox ☐ Protestants ☐ Others
6.	Educational status	☐ Illiterate ☐ Grade 1-8 ☐ Grade 9-12 ☐ Certificate ☐ Diploma ☐ Degree ☐ Others
7.	Monthly income	☐ <500 birr ☐ 500-1499 birr ☐ 1500-2499 birr ☐ 2500-5000 birr ☐ >5000 birr
8.	Place of residence	☐ A.A ☐ Urban ☐ Rural
9.	Number of years with epilepsy	☐ < 1year ☐ 1-5 years

		☐ 6-10 years ☐ 11-15 years ☐ >15 years
10.	Frequency of seizure	☐ Never ☐ 1x/ month ☐ 1x/ week ☐ >1x/ week ☐ others
11.	Years on follow up	☐ <1 year ☐ 1-5years ☐ 6-10years ☐ 11-15years ☐ >15years
Knowledge on epilepsy		
1.	Epilepsy is infectious disease	☐ Yes ☐ No
2.	Epilepsy is transmittable disease	☐ Yes ☐ No
	If yes, mention	☐ Waste gas ☐ Saliva ☐ Sexual intercourse ☐ Blood ☐ Physical contact
3.	Do you know the cause of epilepsy	☐ Yes ☐ No
	If yes, mention	☐ Evil spirits ☐ Punishment from God ☐ Form of insanity ☐ Contact ☐ Hereditary ☐ Brain damage ☐ Severe hunger ☐ Stress ☐ Others
4.	Do you know the signs of epilepsy	☐ Yes

		☐ No
5.	Epilepsy is either treatable or curable disease	☐ Yes ☐ No
6.	Can modern drugs cure epilepsy	☐ Yes ☐ No
7.	Effects of modern drugs on seizure	☐ Decrease the frequency ☐ Stops ☐ No change
Attitude on epilepsy		
1.	Would you object if any of your children play with an epileptic patient	☐ Yes ☐ No
2.	Would you object if someone with epilepsy marry your relative	☐ Yes ☐ No
3.	Do you think a person with epilepsy should be employed the same job as other people	☐ Yes ☐ No
4.	Do you think a person with epilepsy should have children	☐ Yes ☐ No
5.	Do you think epilepsy is a form of insanity	☐ Yes ☐ No
Practice of epileptic patients		
1.	What is the first aid treatment you should receive if you're seizing?	☐ Position me ☐ Put a spoon in my mouth ☐ Take medications ☐ Smell a match stick smoke ☐ Nothing is done ☐ I don't know
2.	What modes of treatment do you use.	☐ Traditional water ☐ Holy water ☐ Witch craft ☐ Modern medications (AED) ☐ others