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Beliefs and Practices of Residents of Seto Semero Kebele on Epilepsy in Jimma Town, of South West Ethiopia in 2018

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Abstract

Background: Epilepsy is a disorder of the brain characterized by two or more unprovoked seizures occurring more than 24 hours apart. It is one of the most common and widespread neurological disorders; in African countries prevalence of epilepsy vary from 7 to 15 per 1000 people and also common medical problem in Ethiopia with prevalence of 5-8 cases per 1000 population. Belief and practice of the community against epilepsy has crucial role in the management and support of the patient with Epilepsy.

Objectives: To assess beliefs and practices of Seto Semero Kebele residents on epilepsy, in 2018.

Methods: Community based cross sectional study was conducted on 300 randomly selected participants from systematically selected households. Data was collected through face to face interview. The collected data was entered to SPSS Version 20 for analysis. Proportion, frequency distribution was used to describe the finding and binary and multivariate logistic regression was done to identify associated factors with outcome variable. Finally, the results were presented by using text, table and graphs.

Result: Out of 300 respondents, 58.3% had positive believe and 63.4% safe practice. Religion, education status and income were significantly associated with believe about epilepsy whereas sex, religion, education status, occupation and income were significantly associated with practice about epilepsy.

Conclusion and Recommendations: Though over all believes and practice in the community was better, still the community have been affecting by different traditional and cultural believes about the cause of epilepsy. This negative believes on some detentions has its own impact on epileptic support on management, first aid and life style modification. Thus, community awareness rising through media, discussion and health institution waiting area campaign and further study on effect of firing matches to epileptic patient were recommended.

Keywords: Believes; Practice; Epilepsy; Community residents; Seto Semero

Introduction

Epilepsy is a disorder of the brain characterized by two or more unprovoked seizures occurring more than 24 hours apart (the old definition) or one unprovoked seizure when the risk for another is known to be high (>60%) [1]. Epilepsy is one of the most common and widespread neurological disorders which affects over 65 million people [2,3]. A study conducted in 5 African countries (Kenya, Tanzania, Uganda, Ghana, South Africa) revealed that the prevalence of epilepsy varies from 7 to 15 per 1000 people [4]. Epilepsy is also common medical problem in Ethiopia with prevalence of 5-8 cases per 1000 population [5]. The cause of epilepsy is completely unknown. However, some evidences suggested that heredity play an important role in many causes of epilepsy, but it can also result from brain injuries caused by blows to the head, stroke, infections, high fever or tumors [6,7]. The other study showed that, in neonatal period and early infancy, the most common causes are hypoxic–ischemic encephalopathy, central nervous system (CNS) infections, trauma, congenital CNS abnormalities and metabolic disorder. In late infancy and early childhood, the most common febrile seizures may be caused by CNS infections and trauma. In adolescence and adult hood, the causes are more likely to be secondary to any CNS lesion. In old persons, cerebrovascular disease is the most common cause; the other causes include CNS tumors, head trauma and other degenerative diseases like dementia [8].

Belief and practice of the community against epilepsy has crucial role in the management and support of the patient with Epilepsy. Belief is the state of mind in which a person thinks something to be the case with or without being empirical evidence to prove that it is the case with factual certainty. Being epileptic is a common medical condition; people may have false beliefs regarding this illness. These false beliefs are wide spread not only in some countries but are also reported elsewhere. For instance, in certain ancient American and African communities, people suffering from epilepsy are considered as being possessed by an evil spirit or under the influence of some kind of black magic [9,10]. Studies showed that cultural beliefs and practices affect the management of epilepsy, especially in countries where epilepsy is still misunderstood. Epilepsy associated stigma has long been recognized as a significant cause of psychosocial morbidity for people with epilepsy [11]. Religious and socio-cultural beliefs are other influencing factors for the nature of treatment and care received by people with epilepsy. Wrong beliefs and social stigma and discrimination make epileptic patients live poor quality life. Epileptic

patients and their families have suffered ostracism by society and deprivation of treatment, leading to frequent injuries and death. Even people with epilepsy who believed their condition to be contagious, who thought their community believed epilepsy to be contagious and whose condition had been revealed to their community against their wishes reported more felt stigma [12-14]. In developing countries, community believe that epilepsy results from evil spirits and therefore treatment should be through the use of herbs, fetish priests and religious leaders rather than medical treatment which results in deterioration of the patients' condition. Persons with epilepsy are discriminated against education, employment and marriage in Africa because epilepsy is seen as a highly contagious and shameful disease in the eyes of the public [15].

Globally, there were a number of studies indicated the variation of beliefs and practice about epilepsy those can either negatively or positively affect the management of epilepsy and the life of patient. In Pakistan, Negative belief and unsafe practice was less common among uneducated and unawareness that leads to unscientific practices [16]. Study conducted in Saud Arabia revealed that, 40% thought blood disorder as cause of epilepsy, 21.1% believed it was contagious and nearly 1/3 viewed due to mental disorders and emotional stress. Regarding their attitude, 19.1% would not work with them, 17% would not allow having their child mingle with a child with epilepsy at school, and more than half would not marry a person with epilepsy. Concerning practice, 68.9% suggested using herbal medication, 31.8% ask spiritual healers and 35.6% even think it is untreatable [17]. Study in Uganda indicated that, 29% believed that genetic as causes of epilepsy, 17% believed that epilepsy is contagious and only 5.6% of respondents would take a patient to hospital for treatment [18]. Another study in Northern Tanzania evidenced that 44.3% of people believed that epilepsy could be treated successfully with traditional healing methods, 34.1% thought that Christian prayers could cure epilepsy. Factors influencing people's attitudes towards traditional healing methods were gender, tribe, religion and urbanity of people's dwellings. This study also indicated that not only traditional healing methods but also prayers in the Christian sense seem to play an important role in people's beliefs regarding successful treatment [19]. Two times study conducted in different parts of Nigeria revealed that 93.2% would not marry epileptics and 87.2% would not allow them to have children and to play with them (72.8%). There was belief difference by educational level. Out of the participants, 63.1% used orthodox medicine and prayers as best treatment of epilepsy, 6.8% use herbal medicine. Concerning first aid, 50.6% agreed that an object should be inserted in the mouth, while 49.5% would call for medical help and 28.8% would remove the person from harm. On the other hand, 64.9% would not keep a friend with epilepsy, 69.1% would not play with them, 84.2% would not marry and only 39.15% had an overall positive attitude [20,21].

Study in Khartoum showed that, there was a good level of positive practice toward epileptic and their first aid measures, but there was also a high level of negative practice that can harm patients. About 22 (6.5%) of participants think that epileptic patients cannot get married, and only 141 (44.5%) believe that epileptic patients could work as farmers and shepherds; 113 (35.6%). Most of the teachers, 245 (77.3%) believe in the neurological etiology as a cause of epilepsy; however, 68 (21.5%) reported the devil and superstitious causalities and 136 (42.9%) related the cause to other organic diseases. There were 27 (8.5%) who believed in traditional herbal treatment, forty-one (12.9%) would tie the patient, 242 (76.3%) would put him on the ground carefully, 248 (78.2%) would remove any harmful surroundings, 177 (55.8%) would put a soft pillow under the seizing patient's head, and 197 (62.1%) would remove any tight clothes [22]. Studies were conducted in some parts of Ethiopia on different dimensions of epilepsy. The most common biologically plausible responses: brain diseases (26.5%) from causes, allow my offspring to play with PWE (19.1%) from attitude, protect the subject from injury (20.4%) from first aid measures and seek help from medical doctors (52.2%) from epilepsy treatment, smelling the smoke of struck match is practiced by 14.2% as first aid measures and Holy water treatment was practiced by 20.3%. Level of education was positively associated with level of believe and practice [23]. In Southwest Ethiopia, 40.6%, 49% and 49.4% respectively believed that epilepsy is hereditary, contagious, and God's curse. Among the participants, 252 (30%) think that epileptics should be isolated from the community, 387 (46.1%) and 336 (40%) do not want to shake hands with epileptics and keep their children away from epileptic patients respectively. In this study, 86.8% had negative attitude towards epilepsy. Ethnicity and educational status were significantly associated with knowledge and attitude. The study also showed that participants noted epilepsy is God's curse [24]. In South part of Ethiopia, study evidenced, 39% rural and 7% urban would not allow their children to associate with person with epilepsy, 56.7% rural and 24.8% urban restrain themselves or their children to marry someone with epilepsy. Even though 75.5% urban and 56.4% rural recommended medical doctor, herbal medication and spiritual treatment were still commonly practiced [25]. In Mekele, 33.24%, 28.6% and 51.6% of the respondent's beliefs that epilepsy is caused by evil spirit, contagious or a kind of insanity respectively. Majority of respondents, (70.33%) opted for Holy water, followed by physicians (64.01%), traditional healer (44.78%) and prayers (32.14%). As first aid for a person having seizures, 81.90% of the students would provide match stick smoke and 11.30% put their head in a toilet hole. There were significant differences between respondents' attitude with respect to epilepsy based on age, gender, level of education and religion [26]. In Gojem, 379 (63.2%) of community had poor practice and, 206 (34.3%) have unfavorable attitude towards epilepsy. In this study, educated people had favorable belief and good practice than illiterate [27]. In Sululta District, 35.6% had a favorable attitude, and only 33.5% of them adopted safe practices related to epilepsy. Factors that had significant association to practice include age ranging from 46-55 years was about two times more likely safely practiced than those of 18-35 years. Additionally tertiary level education background and individuals with occupation history in labor and business areas had 85 times more likely to have safe practice compared to unemployed and illiterate respectively [28].

In summary, beliefs and practices on epilepsy differ from one country to other country even within a country; it differs from region to region. This difference is mainly due to developmental status of a country that includes educational status of the society and the other factor that makes difference within a country includes being rural or urban dweller, socio-cultural difference. Therefore, it is important to study beliefs and practices of different settings because it affects the epileptic patient in many different dimensions.

Research Methodology

Study area and period

A community based cross-sectional study was conducted at Seto Semero Keble, Jimma Town, from May 1 to 10, 2018 which is 356 Km far away from capital city of Ethiopia. The house and population

settlement of Seto Semero is in cluster form. Seto Semero has total population of 11,437 and 2421 total households.

Population

All residents of Seto Semero kebele residents were source population and all selected individuals of age over 18 years per selected households were study population.

Sample size and sampling technique

The sample size was determined using single population proportion formula: $n = \frac{z\left(\frac{a}{2}\right)2\, p(1-p)}{d2}$

Where n-Sample size required, Zα/2=95% we have confidence (1.96)

P=33.5%, safe practices related to epilepsy [28]

d= margin of error, 0.05 (5%)

$$n = \frac{(1.96)2(0.0335(1-0.335))}{(0.05)2} = 342$$

Since the total population (house hold) of the kebele was 2421, reduction formula was used as:

$$nf = n/\left(\left(1+\frac{n}{N}\right) = 342/1+\frac{342}{2421}\right) = 300$$

Where N is total house hold in the kebele

These 300 desired participants selected systematically in which individuals of every Kth houses were included (K=2421/300=8). In case if there were more than one individual with eligibility criteria per selected house hold, lottery method was used to select single participant per house hold.

Data collection and analysis

Data was collected through face to face interview at house hold level using structured interviewer administered questionnaire. The collected data was coded, cleaned and entered to SPSS version 20 for analysis. Proportion and frequency distribution were used to describe the finding and binary and multivariate logistic regression was done to identify associated factors with outcome variable. Those variables with p-value of <0.25 at binary logistic were candidate for multivariate analysis and finally p-value <0.05 considered as significant association at multivariate analysis. Finally, the results were presented in the form of text, table and graphs.

- **Belief:** It is the state of mind in which a person thinks something to be the case with or without there being empirical evidence to prove that it is the case with factual certainty.
- **Positive belief:** If the summed score of correct response of belief questions is greater than the mean score of the study population.
- **Negative belief:** If the summed score of correct response is below the mean score of the study population.
- **Practice:** It refers to performance self-report of respondents according to prepared questions regarding epilepsy care practice in the community.
- **Safe practice:** If the summed scores correct practice of performance self-report on epilepsy is greater than or equal to the mean score of the study population.
- **Unsafe practice:** If the summed scores correct practice of performance self-report on epilepsy is less than the mean score of the study population.

Data quality assurance

Questionnaire was evaluated by experts and data collectors were trained on the content of the questionnaire and the general objectives of the study. Pretest of study tool was done on 5% of the sample size in other area. Modification of the tool was done based on pretest result. In addition, regular supervision was conducted during data collection to make sure of accuracy and completeness of the data.

Ethical considerations

A formal letter was written from school of nursing and midwifery and provided to the leader of kebele and permission was obtained. Then after the objective of the study explained, verbal and written consent was obtained from each participant. The interview was conducted politely and their rights not to respond were respected. Confidentiality of the data was kept at all steps.

Results

Socio-demographic characteristics

All 300 desired participants were participated successfully which made response rate of 100%. Almost of half, 153 (51%) of them were females. The largest proportion of the participants were in the age group of 35-44 years and the largest proportion of Ethnic group; 34.7% were belongs to Oromo of the respondents were Oromo (Table 1). About 34.7% of the respondent's education level was 7-12 grades (Figure 1).

Variables	Category	Frequency	%
Age	18-24	60	20
	25-34	78	26
	35-44	92	30.7
	≥ 45	70	23.3
Ethnicity	Oromo	104	34.7
	Amhara	51	17

	Tigre	17	5.4
	Kaffa	55	18.3
	Dawuro	43	14.3
	Yem	24	8
	Others	6	2
Religion	Muslim	58	19.3
	Orthodox	102	34
	Protestant	108	36
	Catholic	32	10.7
Occupational status	Farmer	13	4.3
	Merchants	48	16
	Laborer	39	13
	Student	50	16.7
	Government employee	76	25.3
	House wife	38	12.7
	Others	36	12
Educational status	Illiterate	38	12.7
	Read and write	28	9.3
	Grade 1-6	51	17
	Grade 7-12	104	34.7
	Above 12	79	26.3
Marital status	Married	166	55.3
	Single	90	30
	Divorced	19	6.3
	Widowed	25	8.3
Monthly Income	<500	29	9.7
	500-1000	48	16
	1001-1499	34	11.3
	1500-1999	69	23
	2000-2499	40	13.3
	>2500	80	26.3
Total		300	100

Table 1: Socio-demographic characteristics of Seto Semero Kebele residents.

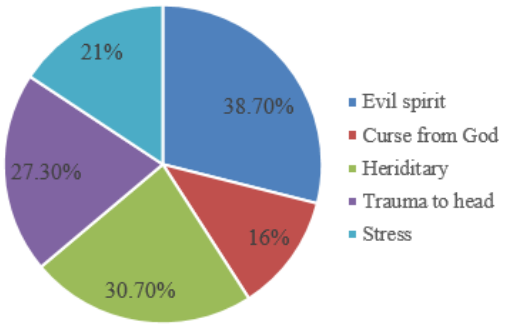

Figure 1: Beliefs of Seto Semero residents regarding causes of epilepsy.

According to the study there were wrong beliefs reported by the community as a cause of epilepsy; 115 (38.7%) believe epilepsy is from evil spirit, 92 (30.7%) thought epilepsy is due to hereditary and 42 (16%) attributed cause of epilepsy to curse from God. On the other hand, 82 (27.3%) of them believe it is from trauma to head and 63 (21%) of them believe caused by stress.

This study revealed that, 201 (67%) of respondents believe that epileptics can lead normal life, 159 (53%) believe epileptics are intelligent as other healthy person, 124 (41.3%) believe epileptic shouldn't play with other, 209 (69.7%) of them believe seizures are treatable, 185 (61.7%) of them believe epileptics have lower physical ability, 101 (33.7%) of them feel ashamed because their family has epilepsy, 231 (77%) of them believe starting treatment help the patient to improve from illness and 221 (73.7%) reported that illness may continue for life time (Table 2). When all dimensions are merged, 175 (58.3%) of the community had positive believe, whereas 125 (41.7%) of them had negative believe which may influence their practice and their support for epileptics.

Beliefs on epilepsy and PLWE	Yes		No	
	Frequency	Percent	Frequency	Percent
The patient leads normal life	201	67	99	33
The patient is as intelligent as other person	159	53	141	47
The patient shouldn't play with another person	124	41.3	176	58.7
Seizures are treatable	209	69.7	91	30.3
The illness may continue for the patient's life time	198	66	102	34
The patient has lower physical abilities than non-epileptics	185	61.7	115	38.3
Feeling ashamed because family has epilepsy	101	33.7	199	66.3
Starting treatment can help the patient to improve from illness	231	77	69	23
Discontinuation of medication can lead to recurrence of illness	221	73.7	79	26.3

Table 2: Beliefs of Seto Semero residents on epilepsy and people living with epilepsy.

Practices of respondents

Regarding place where to take epileptics first, 164 (54.7%) answered health institution, (51%) traditional healers and 27% reported that they took to religious institution. Types of first aids to be provided for epileptics were assessed. Accordingly, opening jaw and taking out the tongue is reported by 85 (28.3%), trying to stop abnormal body movement 74 (24.7%), artificial respiration by 21 (7%) peoples and firing match near to the nostril of epileptics was agreed by 197 (65.7%) which are unsafe practice. On the other hand, tilting to the side and waiting for end of convulsion and removing sharp object from the patient is reported by 92 (30.7%) 130 (43.3%) of respondents respectively which are recommended practice (Table 3). Over all practice indicated that 191 (63.4%) of the residents had safe practice, whereas 109 (36.3%) of them had unsafe practice.

Types of first aid	Yes		No	
	Frequency	Percent	Frequency	Percent
Opening jaws and taking out tongue	85	28.3	215	71.7
Tilting the child on the side and waiting for end of convulsion	92	30.7	208	69.3
Trying to stop abnormal body movement by holding or tying	74	24.7	226	75.3
Artificial respiration	21	7	279	93

Removing sharp objects around the convulsing child	130	43.3	170	56.7
Praying so that the convulsion end soon	59	19.7	241	80.3
Firing the match near his nostril so that the convulsion ends	197	65.7	103	34.3
*This table has multiple responses.				

Table 3: First aid giving practice of residents of Seto Semero Kebele.

Regarding life style modification, 274 (91.3%) of the respondents agreed restricting an epileptic from fire related work, 57 (19%) restricting from sports and 14 (4.7%) preventing from school, 210 (70%) of respondents restrict from any area associated with falling accident and 161 (53.7%) of them prevent epileptic from swimming (Table 4).

Types of life style modification	Yes		No	
	Frequency	Percent	Frequency	Percent
Restrict participation in sports	57	19	243	81
Prevent from work closely related with fire	274	91.3	26	8.7
Prevent from swimming	161	53.7	139	46.3
Restrict from any area associated with falling accident	210	70	90	30
Preventing condition that can create fever in child	34	11.3	266	88.7
Preventing to go school	14	4.7	286	95.3
*This table has multiple responses				

Table 4: Lifestyle modification practice of residents of Seto Semero to epileptic patient.

Association between socio-demographic variables with beliefs and practice on epilepsy

In bivariate analysis; sex, religion, occupational status, marital status, educational status and income were identified candidates for multivariate analysis at p-value <0.25. Accordingly, religion, education and income were significantly associated with believes. Respondents who were followers of protestant were three times more likely to have positive belief towards epilepsy compared to Muslims followers (AOR=3.1; 95% CI (1.434, 6.57). Respondents who were illiterate were 83% less likely to have positive belief towards epilepsy compared to who were literate (AOR=0.166; 95% CI (0.83, 0.33). On the other hand, respondents whose household earn income between 500-1000 were 86% less likely to have positive belief compared to whose household income were ≥ 2500 birr (AOR=0.14; 95% CI (0.06, 0.34). Similarly, respondents whose household income between 1001-1499 were 74% less likely to have positive belief compared to whose household income were ≥ 2500 (AOR=0.2; 95% CI (0.08, 0.51) (Table 5). Respondents whose household earn income between 1500-1999 were 59% less likely to have positive belief compared to whose household income were ≥ 2500 (AOR=0.41; 95% CI (0.17, 0.91).

Variables	Category	Negative belief	Positive belief	COR with 95% CI	p-value	AOR with 95% CI	p-value
Religion	Muslim	31	27	1	-	-	-
	Orthodox	45	57	1.454 (0.76, 2.78)	0.26	2.1 (0.99, 4.43)	0.053
	Protestant	31	77	2.852 (1.47, 5.54)	0.002*	3.1 (1.434, 6.57)	0.004*
	Catholic	18	14	0.89 (0.38, 2.13)	0.8	2.38 (0.83, 6.8)	0.107
Education	Illiterate	51	15	0.14 (0.07, 0.26)	<0.001*	0.166 (0.83, 0.33)	<0.001*
	Literate	74	160	1	-	-	-
Income	<500	11	18	0.676 (0.271, 1.686)	0.111*	0.47 (0.18, 1.3)	0.15
	500-1000	32	16	0.356 (0.167, 0.756)	<0.001*	0.14 (0.06, 0.34)	<0.001*

	1001-1499	19	15	0.220 (0.94, 0.517)	0.001*	0.2 (0.08, 0.51)	0.001*
	1500-1999	32	37	0.554 (0.277, 1.108)	0.002*	0.41 (0.17, 0.91)	0.028*
	2000-2499	13	27	0.831 (0.359, 1.923)	0.24*	0.74 (0.29, 1.86)	0.52
	>2500	18	62	1	-	-	-

Table 5: Association between some sociodemographic characteristics and belief on epilepsy.

In bivariate analysis; sex, age, religion, occupational status, marital status, educational status and income were candidate variables for multivariate analysis at p-value <0.25. But, after adjustment of confounding variables sex, religion, education, occupation and income were statistically associated with practice towards epilepsy. Female respondents were about 2 times more likely to have safe practice towards epilepsy compared to males (AOR=2.37; 95% CI (1.259, 4.48). Orthodox religion followers were about 2.8 times more likely to have safe practice towards epilepsy than of Muslim religion followers (AOR=2.86; 95% CI (1.31, 6.23). Similarly, Protestant religion followers were about 7 times more likely to have safe practice towards epilepsy than Muslim religion followers (AOR=7.15; 95% CI (3.1, 16.47). Literate participants were about 2 times more likely to have safe practice towards epilepsy when than those of illiterate (AOR=2.9; 95% CI (1.3, 6.4). Respondents whose household earn income between 500-1000 were about 2 times more likely to have Safe practice compared to whose household income were ≥ 2500 (AOR=2.208; 95% CI (0.934, 5.218) (Table 6). On the other hand respondents who were merchant were 72% less likely to have safe practice towards epilepsy compared to who were government employee (AOR=0.28; 95% CI (0.111, 0.71).

variable category		Unsafe practice	Safe practice	COR with 95% CI	p-value	AOR with 95% CI	p-value
Sex	Male	67	86	1	-	-	-
	Female	42	105	1.948 (1.206, 3.146)	0.006*	2.37 (1.259, 4.48)	0.008*
Religion	Muslim	39	19	1	-	-	-
	Orthodox	38	64	0.43 (0.177, 1.04)	0.61	2.86 (1.31, 6.23)	0.008*
	Protestant	17	91	1.49 (0.666, 3.314)	0.333	7.15 (3.1, 16.47)	<0.001*
	Catholic	15	17	4.7 (1.99, 11.23)	<0.001*	1.2 (0.4, 3.6)	0.7
Occupation	Farmers	9	4	0.138 (0.038, 0.502)	0.003*	0.45 (0.08, 2.4)	0.34
	Merchants	28	20	0.222 (0.102, 0.484)	<0.001*	0.28 (0.111, 0.71)	0.007*
	Laborers	16	23	0.446 (0.195, 1.022)	0.056*	0.54 (0.18, 1.6)	0.27
	Students	14	36	0.798 (0.354, 1.799)	0.586	1.2 (0.45, 3.22)	0.72
	Government employee	18	58	1	-	-	-
	House wife	11	27	0.762 (0.817, 1.833)	0.544	0.86 (0.3, 3.22)	0.79
	Others	13	23	0.549 (0.232, 1.299)	0.173*	0.7 (0.26, 2.1)	0.55
Education	Illiterate	39	27	1	-	-	-
	Literate	70	164	3.384 (1.924, 5.95)	<0.001*	2.9 (1.3, 6.4)	0.008*
Marital status	Married	61	105	1.148 (0.486, 2.712)	0.754	-	-
	Single	27	63	1.556 (0.624, 3.897)	0.346	-	-
	Divorced	11	8	0.485 (0.144, 1.630)	0.242*	-	-
	Widowed	10	15	1	-	-	-
Income	<500	12	17	0.722 (0.302, 1.727)	0.464	0.64 (0.214, 1.94)	0.434
	500-1000	9	39	2.208 (0.934, 5.218)	0.071*	4.33 (1.34, 13.9)	0.014*
	1001-1499	16	18	0.573 (0.253, 1.298)	0.182*	0.55 (0.2, 1.56)	0.26

	1500-1999	26	43	0.843 (4.3, 1.65)	0.617	0.93 (0.38, 2.25)	0.87
	2000-2499	19	21	0.563 (0.26, 1.222)	0.416	0.69 (0.27, 1.77)	0.45
	>2500	27	53	1	-	-	-

Table 6: Association between some socio-demographic characteristics and practice on epilepsy.

Discussion

In different studies, it could be concluded that beliefs and practices on epilepsy differ from one country to other country even within a country; it differs from region to region. This difference is mainly due to developmental status of a country that includes educational status of the society and the other factor that makes difference within a country includes being rural or urban dweller and socio-cultural difference. Our study revealed that more than half of the community had positive believe towards epilepsy. From the total participants, 38.7% believed that epilepsy is caused from evil spirit, 30.7% hereditary, 27.3% trauma to head, 21% stress and 16% attributed cause of epilepsy to curse from God. This over all believes and attitude in the current study was better than that of Gojem, 34.3% [27] and that of Sululta District, 35.6% [28] of the community had positive believes against epilepsy. On the other hand, it is almost similar with that of Uganda [18], 29% believe epilepsy is caused by genetics and study done in Mekelle [26] in which 28.6% of students believe it is a form of insanity and higher than that of Khartoum, 21.5% reported the devil and superstitious causalities [22]. In contrary, study done in Menit Community showed 40.6% and 49.4% believed that epilepsy is hereditary and God's curse respectively, 30% think that epileptics should be isolated from the community, 46.1% and 40% do not want to shake hands with epileptics and keep their children away from epileptic patients respectively and 86.8% of respondents had negative attitude towards epilepsy [24]. This indicated that in our study, the community had better believes and attitudes which is may be due to in our case community is nearby university which has community based education that may increase the community's awareness to some extent. In our study, positive believe was higher than that of Tanzania, 39.15% had an overall positive attitude [19] and Nigeria, only 39.15% of the participants had an overall positive believe and 63.1% used orthodox medicine and prayers as best treatment of epilepsy, 6.8% use herbal medicine [20,21]. This difference may be explained by socio-cultural and awareness difference between these communities which is supported by in developing countries, community believe that epilepsy results from evil spirits and therefore treatment should be with herbs, fetish priests and religious leaders rather than medical treatment which results in deterioration of the patients' condition. Persons with epilepsy are discriminated against education, employment and marriage in Africa because epilepsy is seen as a highly contagious and shameful disease in the eyes of the public [15]. In the current study, there were different believes on different dimensions of epilepsy that makes this study findings consistent with other on some dimensions otherwise different on the others dimensions of believes and practice about epilepsy in different areas. For instance in our study, 67% of respondents were believe that epileptics can lead normal life, 53%epileptics are intelligent as other healthy person, 41.3% epileptic shouldn't play with other, 69.7% seizures are treatable, 61.7% epileptics have lower physical ability than non-epileptics, 33.7%feel ashamed because family had epilepsy, 77% believe starting treatment help the patient to improve from illness and 73.7% reported that illness may continue for life time. This negative believes have negative impact on the treatment support of epileptic, social life and increase stigma and discrimination against epileptics; 17% would not allow having their child mingle with a child with epilepsy at school, and more than half would not marry a person with epilepsy [17].

Regarding practice, 63.4% of the residents had safe practice, whereas 36.3% of them had unsafe practice. This study finding was better than that of Gojem, 63.2% of community had poor practice [27] and that of Sululta District in which only 33.5% of them adopted safe practices related to epilepsy [28]. In the current study, regarding place where to take epileptics first, 54.7% of participants responded as health institution, 51% traditional institution and 27% religious' institution. This finding is not agreed with that of Uganda on the dimension of treatment option; only 5.6% of respondents would take a patient to hospital for treatment [18]. Study in Saudi Arabia also indicated that 68.9% of community suggested herbal medication as treatment of epilepsy, 31.8% suggested spiritual healers and 35.6% even think it is untreatable [17]. This implies that the community under the current study is better in helping epileptic patient in scientific methods. This could be due to the current study population have been obtaining health education by university students as a part of community based education on different health issues. On non- modern and non-scientific methods of epileptic treatment option, our study was somewhat consistent with that of Northern Tanzania; evidenced that 44.3% of people believed that epilepsy could be treated successfully with traditional healing methods, 34.1% thought that Christian prayers could cure epilepsy [19]. Our study finding is also consistent with other study in Ethiopia in which 52.2% of community taken epileptic to health institution as epilepsy treatment [23] and somewhat with that of Mekele; 70.33%, 64.01%, 44.78% and 32.14% of the community taken epileptic to opted for Holy water, health institution, traditional healer and prayers respectively as epilepsy treatment [26]. This implies that, even though these studies were consistent with each other, traditional practice and believes were affecting the community's support to epileptics.

Regarding first aids to be provided for epileptics, Opening jaw and taking out the tongue 28.3%, tilting to the side and waiting for end of convulsion 30.7%, trying to stop abnormal body movement 24.7%, artificial respiration by 21% peoples, removing sharp object 43.3% and firing match near to the nostril of epileptics was practiced by 65.7%]. This pattern of first aid practice for epileptic patient relatively not consistent with that of Nigerian community; 50.6% agreed that an object should be inserted in the mouth, while 49.5% would call for medical help and 28.8% would remove the person from harm [20,21]. In our study, the practice of protect the subject from injury is higher than that of other study in part Ethiopia, 20.4% [23]. In Mekele, the practice of firing match near to the nostril as first aid for a person having seizures was higher than that of our finding, 81.90% [26]. These differences might be due to cultural and perception difference without any scientific evidence on the effect of firing match which may have even contraindication to the patient with compromised Oxygen during

seizure. Our study finding showed that, there was significant difference on believes and practice against epilepsy among participants of different religion, different educational background, household family income and sex. This study finding was in agreement with that of Mekelle [26], Gojem, [27] and Sululta District [28]. But there was no significant difference between the age groups which is not in agreement with that of Mekelle [26].

Conclusion

The authors conclude that, though over all believes and practice in the community was better, still the community have been affecting by different traditional and cultural believes about the cause of epilepsy. This negative believes on some detentions has its own impact on epileptic support on management, first aid and life style modification. This can increase stigma and discrimination that may makes the patient hopeless and withdraw them from medical management and expose them for social separation and stress. This is supported by in the there was still traditional practice which have no scientific evidence like taking out the tongue, taking the patient to traditional healers and firing of matches which may even contra indicated to patient with compromised oxygen during seizure. Religion, education and income were identified predictors of believe about epilepsy and sex, religion, education, occupation and income were some of the predictors of practice about epilepsy.

Recommendations

Local government and district health office should work to create awareness and change negative beliefs and unsafe practices towards epilepsy by using local media, short message service (SMS) and discussion with the community to provide health education and disseminate information on the causes of epilepsy, first aid and lifestyle modification to be given for epileptic patient at community level. Health extension workers and health care providers should teach the community about epilepsy in the community and during visiting of health institution as short campaign on waiting area of health institution. Further study should be on the effect of firing matching near the nostril of epileptic patient as first aid.

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Conflict of Interest

Both authors declared that there is no conflict of interest. Funder of this study was acknowledged, and they have no contribution in publication process.

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