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Knowledge, Attitude and Practice of Wollega University Students Towards Epilepsy: An Institution Based Survey

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Abstract

Background: Epilepsy is one of the most common neurological disorders worldwide. More than 40 million people worldwide have been estimated to suffer from epilepsy, and an estimate 80% of those individuals are living in developing countries. Like other developing countries, the prevalence of epilepsy in Ethiopia is high, 5.2. Socio-cultural beliefs influence the nature of treatment and care received by people with epilepsy. Therefore, the aim of this study was to assess knowledge, attitude and practice of Wollega University student towards epilepsy.

Methods: Community-based cross-sectional study designs was used to assess the knowledge, attitude, and practice related to epilepsy by using a pretested, structured self-administered questionnaire on 369 Wollega University regular students. Consecutive sampling method was employed for sampling. Descriptive analysis was used to describe the percentages and number distributions of variables.

Result: The majority (88.8%) of respondents had awareness about the disease. A little more than half (53.5%) of the respondents believe epilepsy can be treated with modern medicine and religion. A little more than one third (34.2%) of the respondents said if they saw someone seizing, they would smell him/her something. Most of the respondents (61.9%) don`t think the society discriminates epileptics.

Conclusion: The study had indicated that students had awareness about the disease, yet there is still problem with unsafe practice related to epilepsy; but relatively promising knowledge about epilepsy.

Keywords: Attitude; Epilepsy; Ethiopia; Knowledge; Wollega

Introduction

In spite of all the information available, common diseases like epilepsy still carry strong social stigma [1]. Epilepsy, a universal disorder that affects nearly 50 million people in the world; [2] among them an estimate 80% of those individuals are living in developing countries [3]. The reported prevalence of active epilepsy in developing country range from 5 to 10 per 1,000 people [4]. Epilepsy commonly attacks young adults in the most productive years of their lives and frequently leads to unemployment, which often confounds the problems, not only the afflicted, but also the family that relays on their financial supports [3].

Although knowledge, attitude and beliefs about epilepsy have improved globally, misconception about the disorder still exist [5]. Many studies in developed regions of the world have confirmed that stigma contributes substantially to the psychological and social burden of epilepsy [3]. Socio-cultural attitudes continue to have a negative impact on management of epilepsy in many African countries [6]. The disorder is enrolled in superstition, discrimination and stigma in many of these countries [7]. Many communities in Africa and other developing countries believe epilepsy results from witchcraft or possession by evil. Persons with epilepsy are shunned and discriminate against in education, employment and marriage [8]. In sub-Saharan Africa, particularly in rural regions, close family ties, communal living situations, traditional belief systems undoubtedly influence the expression of stigmatization [9].

Like other developing countries, the incidence of epilepsy is very high in Ethiopia. The prevalence of epilepsy in Ethiopia is 5.2% [10]. A community-based study done in Ethiopia revealed that 6.3% of the patients with epilepsy have died over a 2-year's period as a result of complication from the disease [3]. Despite being a common disorder in Ethiopia, epilepsy is perhaps the neurological condition least well understood by the general public and most likely to be associated with a wide range of misconceptions [11]. The prevalence estimate of perceived stigma in Ethiopia was 81% [11]. In order to ensure proper management of epilepsy it is important to have a clear understanding of community knowledge, attitude and practice toward the disease. This indicated that, as further research was needed to be conducted to assess community myths and forward viable solutions to the investigated problems. Therefore, the aim of this study was to assess knowledge, attitude and practice of Wollega University students towards epilepsy.

Materials and Methods

Study area, design and period

An institution based cross sectional survey was conducted to assess knowledge, attitude and practice of Wollega university students towards epilepsy. The study was conducted among students of Wollega University. In the given year, about 10,324 regular students were enrolled in the University. The study was conducted from May 8 to 26, 2017.

Sample size determination and sampling producers

All regular students of Wollega University (in all three campuses) were considered as the source population. Sample size was determined by using single population proportion formula and taking the proportion of 50% with confidence level of 95% and degree of precision of 5%.

$$n_i = \frac{Z^2 pq}{d^2}$$

Where:

n_i=the initial sample size required

p=proportion or prevalence of the population assumed (50%)

q=1–p which is 1–0.5

d=The margin of sampling error tolerated (5%)

z=The standard normal variable at percentage confidence level with 95% confidence level (1.96)

N=Total population

n_f=final sample size

$$n = \frac{(1.96)20.5(1-0.5)}{(0.05)^2} = 384$$

$$n_f = n/1 + \frac{n}{N}$$

$$n_f = 384/1 + \frac{384}{9295}$$

n_f=369

Variables and data collection procedures

A structured self-administered questionnaire was prepared in English. The questionnaire had two parts: socio-demographic part which contains Age, Sex, Source of information, Year of study and second part: Knowledge, Attitude and Practice towards epilepsy of subjects towards epilepsy. The questionnaire was then translated to Amharic and Oromiffa to enable all subjects to understand the enquiry. Data collectors and supervisors were recruited from nearby higher institutions based on their clinical experience and educational level. Both the data collectors and supervisors were given orientation for half day, especially the supervisors were ensuring completeness of the data. Participation was on voluntary basis and confidentiality has been maintained to encourage accurate and honest self-disclosure. After that the questionnaire was distributed to the selected students in the class room and when the instructors are willing to allow the students to complete the questionnaire, the filled questionnaires were collected immediately. Consecutive sampling method was used.

Eligibility criteria

Three hundred sixty-nine students were randomly asked to fill the questionnaire. Those who were unwilling to participate, and health science students were excluded from the study.

Data processing and analysis

Questions regarding knowledge, attitude and practice towards epilepsy was asked and pulled together. The collected data were cleared, categorized, tallied and analyzed and the results were presented in tables and figures as necessary. Descriptive statistics was used to characterize Knowledge, attitude and practice. Results of the study were reported in frequencies, percentages and presented using tables and figures.

Data quality assurance

To maintain data quality, the questionnaire was translated into the local languages (Amharic and Oromiffa). The principal investigator and a supervisor checked the questionnaire for completeness and consistency daily and incomplete questionnaire was discarded. Pilot study and pre-test of the questionnaires was conducted for the relevance of the variables to the study and to avoid any confusion during actual data collection period. One hundred twenty students were responded the questioner two week prior to actual data collection period and further amendment on the tool was made as necessary. Data collectors and supervisors were recruited from nearby higher institutions based on their clinical experience and educational level. Both the data collectors and supervisors were given orientation for half day, especially the supervisors were ensuring completeness of the data.

Ethical consideration

Ethical approval to conduct this research was obtained from Wollega University College of health science, Department of pharmacy. The letter was communicated to the registrar and other concerned bodies accordingly. Verbal informed consent was obtained from each study subject prior to the interview after the purpose of the study was explained to them. Anonymity was guaranteed to protect the identity of person. During the process of study every effort was made sure that there was no physical or psychological harm inflected on the study participants. Participation in to the study was strictly on voluntary basis. The participants were assured that Information gathered was treated as confidential and accessible only to the investigators.

Results and Discussion

Socio-demographic characteristics

Of the 369 study participants, 357 completed the study with a 96.7% response rate. The majority 284 (79.6%) of respondents were above the age 20 and more than half 159 (55.5%) were women. Most of (78.8%) the respondents were single. Only 17.6% of the respondents were in a committed relationship. Approximately half of them (48.5%) were 3rd year students; with only 6.7% of them being first year student. About

fifty-five percent were Oromo, and close to half (45.9%) were Orthodox Christians (Table 1).

Variable	Category	Number	Percentage (%)
Sex	Male	198	55.5
	Female	159	44.5
Marital status	Single	281	78.8
	Married	12	3.3
	In a committed relationship	63	17.6
	Divorced	1	0.3
Year of study	First	24	6.7
	Second	50	14
	Third	173	48.5
	Fourth	57	16
	Fifth	53	14.8
Religion	Orthodox	164	45.9
	Protestant	153	42.9
	Muslim	29	8.1
	Other	11	3.1
Ethnicity	Oromo	198	55.5
	Amhara	65	18.2
	Tigre	30	8.4
	Other	64	17.2

Table 1: Socio demographic characteristics of participants at Wollega University from May 8 to 26, 2017.

Knowledge toward epilepsy

The Majority (88.8%) of respondents have awareness about the disease. Only half (50.1%) of the respondent knew epilepsy affects both sexes. According to the study 61.9% and 73.9% believe epilepsy is communicable and it can be treated or controlled, respectively. Most of the respondents (70.9%) knew epileptic at some time of their life; with only 56.9% of the respondents have had experience with epileptic person (Table 2).

From those 33.1% of them heard it from someone they knew, 28.7%of them from media. About 19% of them knew someone with the condition and 19% of respondents had other source of information (Figure 1).

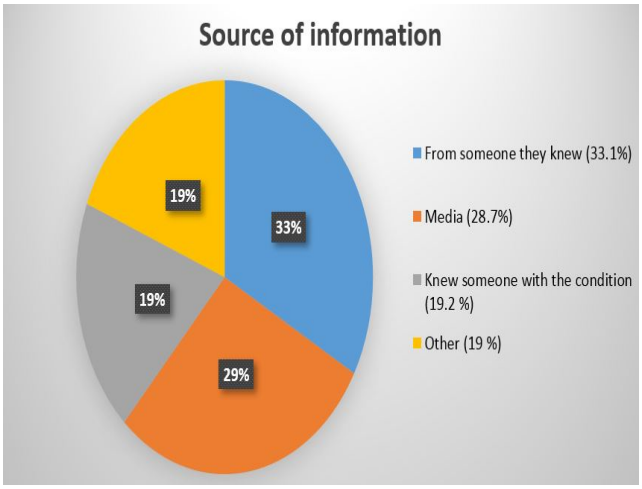

Figure 1: Source of information of respondents at Wollega University from May 8 to 26, 2017.

Variable	Category	Frequency	Percent
Have you ever heard about epilepsy	Yes	317	0.888
	No	40	0.112
Do you know or have you ever known someone with epilepsy?	Yes	203	0.569
	No	154	0.431
Whom does epilepsy affect?	Male	99	0.277
	Female	79	0.221
	Both	179	0.501
Do you think epilepsy can be transmitted from one person to another?	Yes	221	0.619
	No	136	0.381
Do you believe that epilepsy can be treated or controlled?	Yes	264	0.739
	No	93	0.261

Table 2: Awareness of study participants towards epilepsy.

What the respondents thought epilepsy was?

About thirty percent of the respondents thought epilepsy as a mental illness, 23.5% of them thought as a type of brain disorder, 21.6% of them had no have idea, 16.8% of them thought as a possession by devil and 13.2% of them thought epilepsy as a mental retardation (Figure 2).

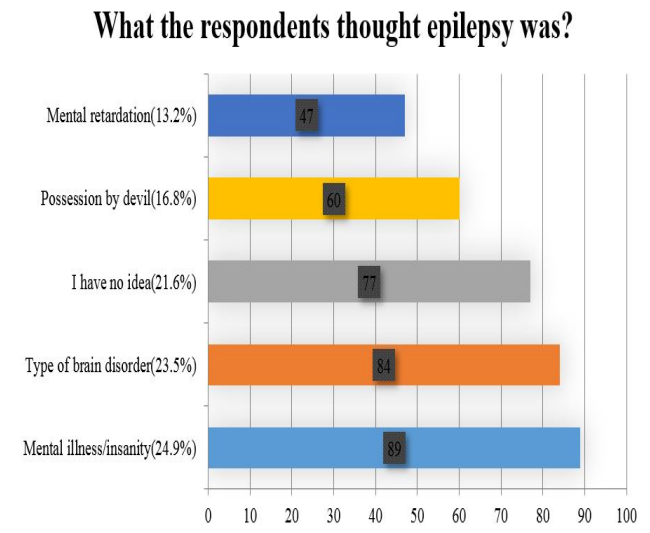

Figure 2: Epilepsy in the thought of respondents of Wollega University from May 8 to 26, 2017.

What respondents thought about the cause of epilepsy?

From all a little more than quarter (26.6%) of them thought accidents cause epilepsy, 19.6% of the respondents' don`t know what cause epilepsy, 17.9% of the respondents thought epilepsy is caused by devil work (Figure 3).

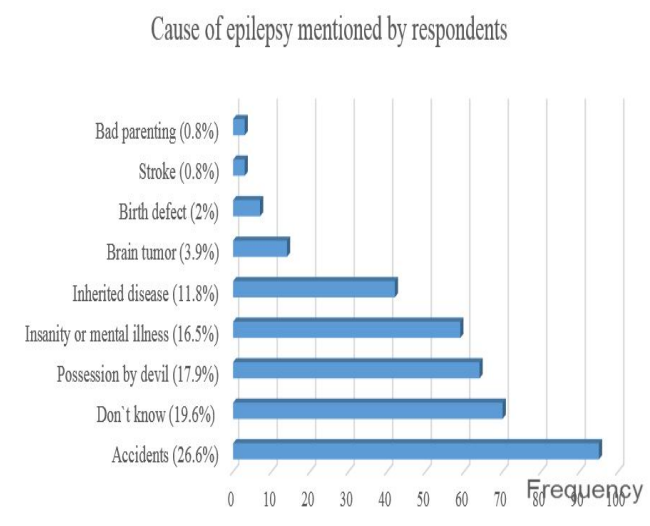

Figure 3: The cause of epilepsy as mentioned by respondents at Wollega University from May 8 to 26, 2017.

What the respondents thought the treatment of epilepsy?

A little more than half (53.5%) of the respondents believe epilepsy can be treated with modern medicine and religion, 17.9% of respondents believe it can only be treated by faith and religion, 12.9% of respondents believe modern medicine is the only way to treat epilepsy, 11.5% of all think it can be treated with both modern and traditional medicine, 2.5% of respondents think it can only treated by traditional medicine and 1.7% of them think it can be treated by both medical practices (modern and traditional) or religion (Table 3).

Treatment option	Frequency	Percentage (%)
Modern medicine and religion	191	53.5
Only faith and religion	64	17.9
Modern medicine	46	12.9
Both modern medicine and traditional healer	41	11.5
Traditional healer	9	2.5
Modern and traditional medicine+Religion	6	1.7
Total	357	100

Table 3: Belief regarding treatment option of respondents at Wollega University from May 8 to 2017.

How to approach a seizure incidence?

A little more than one third (34.2%) of the respondents said if they saw someone seizing they would smell him/her something, 24.4% of the respondents said they would move the person away from danger, 21% of the respondents said they would hold the limbs, 9.5% of the respondents said they would avoid touching the person during seizure, 7.6% of the respondents said they would lay the person on his side and 3.4% of the respondents said they would avoid touching the person's saliva (Table 4).

Knowledge towards epilepsy	Frequency
Make the person smell something	122
Move the person away from danger	87
Hold the leg and arms	75
Avoid touching the person during seizure	34
Lay him on his side	27
Avoid touching the person`s saliva	12
Total	357

Table 4: Practice toward epilepsy of respondents at Wollega University from May 8 to 26, 2017.

According to the study 90.2%, 82.9% and 89.4% of respondents would be in social gathering with epileptics, wouldn`t change their attitude toward a friend with a recent diagnosis and they were willing to have epileptic as a close friend respectively. Most of the respondents (94.4%) were willing to help epileptics. Majority (97.2%) of respondents would object their close relatives to marry epileptic individuals (Figure 4).

Attitude towards epilepsy

Most of the respondents (61.9%) don`t think the society discriminates epileptics, almost quarter (24.1%) of the respondents think the society discriminates and the rest (14%) of respondent don`t know whether the society discriminate or not against epileptics. A majority of respondents (58.8%) don`t think epileptics should be sent to special school. About three quarter (73.4%) think epileptics should have children (Table 5).

Variable	Category	Frequency	Percentage (%)
Society discriminates against epileptics	Yes	86	24.1
	No	221	61.9
	Not sure	50	14
Epileptics should be sent to special school	Yes	110	30.8
	No	210	58.8
	Not sure	37	10.4
Do you think epileptic should have children	Yes (73.4%)	262	-0.734
	No (26.6%)	95	-0.266
	Not sure	0	0

Table 5: Respondents attitude toward epilepsy at Wollega University from May 8 to 26, 2017.

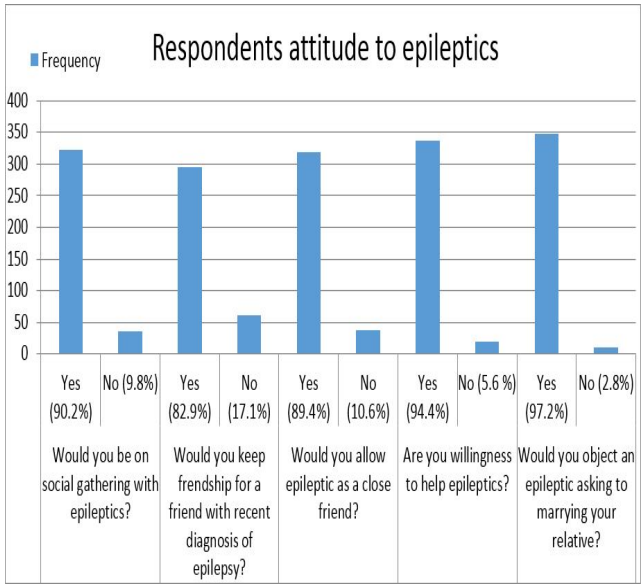

Figure 4: Respondents' attitude to be together with epileptics at Wollega University, May 8 to 26, 2017.

Discussion

The study reported that even though the students had awareness about epilepsy there is still a misunderstanding about the disease and most of them exercise unsafe practice. Our study revealed that 88.8% (70.9%) of the participants knew epileptic at some time of their life which is more than the study on Bosnia and Herzegovina (41%) [12]. Similarly, the study revealed that more than two third (69.2%) of respondents witnessed someone having seizure which is much more than the study done in on Bosnia and Herzegovina 32.5% and US 43.9% [12,13]. In our study 19.6% of respondents said they don`t know the cause of epilepsy which is better improvement than Tanzanian inhabitants (67.7%) Nigerian adults (25.2%) [14,15].

Concerning what is to be done when a seizure occurs; around one third (34.2%) of the respondents said if they saw someone seizing they would smell him/her something, 24.4% of the respondents said they would move the person away from danger, 21% of the respondents said they would hold the limbs, 9.5% of the respondents said they would avoid touching the person during seizure, 7.6% of the respondents said they would lay the person on his side and 3.4% of the respondents said they would avoid touching the person`s saliva; when compared to a study performed among Tanzanian inhabitants concerning what is to be done when a seizure occurs, 33.5% of the respondents would keep away and not touch the person, 16.5% would take some potentially harmful measure such as forcing a mouth gag or forcing a drink such as water(one even mention urine); 5.2% would take unnecessary measures such as rushing the patient to a hospital [14].

Conclusion and Recommendation

This study revealed that majority of the respondents had information about epilepsy. In addition, they had a relatively promising knowledge about epilepsy and good attitude toward epileptic patients. But the study has indicated there is much to be done in this area. Because our study revealed the practice that is exercised among our respondent was more unsafe

Therefore, we recommend further study on the same topic needs to be conducted nationally. There is a need to explore reasons why many persons in this study knew someone with epilepsy, but only few witnessed it. The Ministries of Health and Education should work together to alleviate fears surrounding epilepsy through health education about epilepsy.

Limitation of the study

The results of this study cannot be generalized to the whole population, because it was only conducted and localized in a Wollega university compound. A qualitative approach could have elicited a deeper understanding of the experiences of the teachers towards epilepsy.

Declaration

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Authors' information

EA and GA are from Wollega University.

Authors' contributions

All authors involved in designing of the study, data collection, data analysis, drafting and critically reviewing the manuscript. All authors read and approved the final manuscript.

Availability of data and materials

The dataset supporting the conclusions of this article is included within the article.

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Competing interests

The authors have declared that no competing interests exist.

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