

Population and Health Students Knowledge, Attitude and Perception towards Epilepsy Patients

Ebenezer Kwesi Armah-Ansah*, Kenneth Fosu Oteng and Joycelyn Boatemaa Affum

Department of Population and Health, University of Cape Coast, Ghana

*Corresponding author: Armah-Ansah EK, Department of Population and Health, University of Cape Coast, Ghana, Tel: +233502271880; E-mail: kwesiarmah5@gmail.com

Received date: November 05, 2018; Accepted date: November 12, 2018; Published date: November 16, 2018

Copyright: ©2018 Armah-Ansah EK, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

Purpose: This study was carried out to determine knowledge and attitude towards epilepsy among University of Cape Coast Population and Health students, Ghana.

Methods: This study was conducted among Population and Health students in the University of Cape Coast by distributing questionnaires constructed in English language. Questionnaires were administered to 200 randomly selected students.

Results: Out of the 200 questionnaires collected and analyzed, majority of the students (97.5%) have heard of epilepsy as a disease with the common source of information coming from the University teaching (66.0%). Most of the students (78.0%) reported that epilepsy is a psychiatric disease and about 69% believe that the disease is not treatable and a significant number of the respondents (79.5%) indicated that it is a hereditary disease. The negative attitudes reported by the students include people with epilepsy should not marry close relatives of theirs (53.5%) or shake hands with epileptic patients (54%) while 83% reported that epileptics should not have children and 80.5% indicated not to study or work with epileptics.

Conclusion: Students have knowledge about the disease but they have bad or negative attitudes towards epilepsy which need to be improved by enhancing more information through education to improve their knowledge.

Keywords: Population; Health; Epilepsy; Psychiatric

Introduction

Epilepsy is a widely recognized health condition which is poorly understood even among some people who regularly interact with epileptics [1]. Limited knowledge and understanding about the causes of epilepsy has been associated with negative attitudes and beliefs as well as stigma toward epileptics both at workplaces and in schools [2]. Epilepsy is the most common serious neurological disorder worldwide [3], which is often surrounded by prejudice and myth but can be overcome with enormous difficulties [4]. It is characterized by recurrent derangement of the nervous system due to sudden excessive disorderly charge of the cerebral neurons that results in almost instantaneous disturbance of sensation and loss of consciousness or psychic function, convulsive movements or some combination of these [5,6].

Epilepsy has existed since ancient times and in different parts of the world within different cultures and the disease remains a major health problem not only due to its health implications with many misconceptions which knows no racial, national, economic or geographical boundaries [7,8]. Epilepsy occurs in both sexes, at all ages, social classes, adolescence and increasingly ageing populations [9,10]. Persons with epilepsy are at high risk of developing variety of psychological problems such as depression, anxiety and psychosis [11].

Epilepsy has become a burden for more than 70 million people globally [12] and about 80% of the people with epilepsy are within

developing countries [5,8]. However, worldwide prevalence rate varies from 2.8 to 19.5 per 1,000 of the general population [13]. The rate can be as high as 43 per 1,000 people in developing countries (WHO, 2001) and the disability caused by epilepsy accounts for about 0.5% of the global burden of the disease measured by disability-adjusted life-years [14]. In Ghana, about 270,000 of the total population of Ghana suffer epilepsy as of 2016 [15]. This reported prevalence is believed to be underestimated as many people are reluctant to seek treatment due to their difficulty in conceptualizing and communicating their illness experiences [16,17].

Many communities in Africa and other developing countries are of the conviction that epilepsy results from witchcraft or possession by evil spirits and therefore treatment should be through herbs from traditional doctors, fetish priests and religious leaders [18]. Other aspect of sociocultural belief about the disease in Africa is that it is contagious and can therefore be spread through urine, saliva, flatus, or faeces excreted at all times or during a convulsion [19-21]. This results in isolation and unwillingness to touch and protect the patient from injury during a seizure.

In some African communities, it is thought as punishment for one's sins [22] and is regarded as "being chosen" or "being possessed," depending on the prevailing popular belief and this affects treatment and society's attitudes towards epileptics [23]. Many studies in Africa, especially in Nigeria and Liberia, have revealed that persons with epilepsy are shunned and discriminated against in educational institutions, employment and marriages because epilepsy is seen as a highly contagious and shameful disease [5]. As a result, epileptic

persons suffer untold social deprivations and discrimination in education, employment and marital life among other facets of social life [24].

Epilepsy is currently recognized by many countries and concerned associations as a topical public health concern [25]. Reducing the burden of epilepsy among developing countries requires understanding of the cultural aspects of the condition however studies still demonstrate poor knowledge about methods of dealing with seizures [26,27].

Several studies have reported that educated individuals have better knowledge and less negative attitude towards epilepsy [28-31]. University students' especially health care students are considered as educated people and it is essential to have enough knowledge for the future health care about epilepsy and to improve their attitude towards people with the disease.

A lot of studies have been conducted on the knowledge and attitude towards epilepsy among different groups of the society but there are no published studies among the University of Cape Coast Population and Health students on epilepsy. The aim of this study is to investigate the knowledge and attitudes towards epilepsy among UCC Population and Health students.

Methods

Study setting

This was a cross-sectional study conducted in the University of Cape Coast among Population and Health students (PoH). The University, which is 5 km west of Cape Coast, is on a hill overlooking the Atlantic Ocean. It operates on two campuses: The Southern Campus (Old Site) and the Northern Campus (New Site/Science).

Study design and sample determination

The study employed a cross-sectional study involving PoH students on the University of Cape Coast campuses. The sample size for the study was 200 students who were undergraduate students of the Department of Population and Health in the University of Cape Coast.

Sampling procedure

Simple random technique was used to select respondents from the University of Cape Coast.

Data collection instrument and procedure

Questionnaires were used to collect the data. The items were constructed in English based on the research objectives with both close-ended and open-ended questions. The questionnaires were categorized into 4 sections: section '1' was based on the background information, section '2' involved questions on the knowledge on epilepsy with the third section focused on the attitude towards epileptic patient and the last section dealt with perception. To ensure that research instrument was well understood by the respondents, a pre-test study was conducted among twenty students of the University of Cape Coast Medical Sciences. This provided a means for ascertaining appropriateness of the questions for obtaining valid and reliable responses. All necessary adjustment and modifications were then made on the instrument before the actual data collection began.

Data processing and analysis

The data collected from the field were coded after which were entered using Statistical Product and Service Solution (SPSS) software version 21.

Results

Socio-demographic characteristics

Two hundred students were involved in the study, 105 (52.5%) were males and 95 (47.5%) were females. Majority of the study participants (87.5%) were aged 21-25 years, and more than half (68.5%) of the respondents were of Akan ethnicity. Regarding religion, half of the respondents were Pentecostal/Charismatic and almost one-third (32.5%) were in level 300 as shown by Table 1.

Characteristics	Frequency (N)	Percentage (%)
Sex		
Male	105	52.50
Female	95	47.50
Age (years)		
<20	11	5.50
21-25	175	87.50
26-30	7	3.50
31	7	3.50
Level		
100	27	10.50
200	57	28.50
300	59	32.50
400	57	28.50
Ethnicity		
Akan	137	68.50
Ga	9	4.50
Ewe	25	12.50
Others	29	14.50
Religion		
Christian	197	98.50
Moslem	3	1.50

Table 1: Socio-demographic characteristics of respondents.

Knowledge of UCC students about epilepsy

Among the study participants, 195 (97.5%) have heard about epilepsy. Majority of the respondents (70.0%) reported that they do not have enough knowledge about epilepsy whereas their major of information on epilepsy was from University teaching followed by others (11.5%) with mass media as the least (3%).

Variable (yes)	Level				Total (%)	Gender	
	100 (%)	200 (%)	300 (%)	400 (%)		Male (%)	Female (%)
Ever heard or read about epilepsy?						102 (52)	94 (48)
Variables	Frequency			Percentage (%)			
Ever heard or read about epilepsy?							
Yes	195			97.5			
No	5			2.5			
Do you think you have enough knowledge?							
Yes	60			30			
No	140			70			
Sources of information							
Mass media	6			3			
University teaching	132			66			
Family	17			8.5			
Friends	12			6			
Written materials	10			5			
Others	23			11.5			
Have you ever seen epileptic patient?							
Yes	183			91.5			
No	17			8.5			
Is epilepsy neurological disease?							
Yes	144			72			
No	33			16.5			
Don't know	23			11.5			
Is epilepsy psychiatric disease?							
Yes	156			78			
No	14			7			
Don't know	30			15			
Is epilepsy hereditary disease?							
Yes	159			79.5			
No	11			5.5			
Don't know	30			15			
Is epilepsy God's curse?							
Yes	12			6			
No	180			90			

Don't know	8	4
------------	---	---

Table 2: Knowledge of the study participants regarding epilepsy.

The Table 2 further reveals that about 92 percent (183) of the respondents have ever seen epileptic patient while 72 percent believe epilepsy is a neurological disease. However, majority of the respondents indicated that epilepsy is a psychiatric disease (78%), whereas 79.5% and 90% believed that it is hereditary disease and God's curse respectively.

Variables	Frequency	Percentage
Do you have a family member who is epileptic?		
Yes	16	8
No	184	92
Do you agree to work or study with epileptic?		
Yes	39	19.5
No	161	80.5
Do you agree to have a close relation with epileptics?		
Yes	47	23.5
No	153	76.5
Do you agree that epileptics should have children?		
Yes	34	17
No	166	83
Will you buy from epileptic patient?		
Yes	38	19
No	162	81
Will you share a room with an epileptic?		
Yes	53	26.5
No	147	73.5
Do you shake hands of epileptics?		
Yes	92	46
No	108	54
Do you agree to an epileptic person marrying a close relative of yours?		
Yes	93	46.5
No	107	53.5
Is epilepsy a treatable disease?		
Yes	62	31
No	138	69

Table 3: Attitude towards epilepsy among respondents.

Table 3 of the study revealed that more than two-thirds of the study participants {161 (80.5%), 153 (76.5%) and 147 (73.5%)} reported that they did not agree to work or study with epileptics, to have close relation and to share a room with them respectively.

Among the study participants, 108 (54.0%) and 166 (83.0%) did not want to either shake hands with epileptics or want epileptics to have children respectively. Two-thirds (81.0%) and a little above half (53.5%) of study participants did not agree to buy from epileptics and will object to an epileptic person marrying a close relative of theirs.

Discussion

Knowledge and attitude towards a certain disease are essential as they may have influence on the outcome of the disease requiring lifelong therapy [32]. In this study, 97.5% of the study participants indicated to have ever heard or read about epilepsy. This is confirmed by studies conducted in Southwest Ethiopia among Menit and in Jordan University of Science and Technology which revealed that 97.1% and 98.5% of the respondents respectively have heard about epilepsy. The findings from this study, Ethiopia and Jordan University of Science and Technology were however higher than those other studies conducted in Saudi Arabia and Tehran which revealed that 70% and 76.6% of the respondents respectively have ever heard or read about epilepsy [33,34]. This may be because the studies were conducted among fairly educated groups. The majority (78.0%) of the study participants believed that epilepsy is a psychiatric disease. This was almost the same to a study conducted among Menit Community in Southwest Ethiopia (85.3%). However, findings from other studies in Saudi Arabia (48%), England (51.8%) and Iran (16.9%) [33-35] contradict the findings of this study. This difference could be due to social divergences.

The majority of the respondents of the study (69%) believe that epilepsy is not treatable disease. The finding from this study is confirmed by a study in Southwest Ethiopia which revealed that about 69.3% of the respondents believed that epilepsy is not a treatable disease [36]. However, in other studies from Saudi Arabia and India about 9% and 21% of respondent's respectively revealed epilepsy is not treatable disease [37]. This is far lower than the rate from this study.

The findings from this study indicated that majority of the respondents (79.5%) believed that epilepsy is a hereditary disease. However, a study from Kassle et al. revealed that about 4.45% of their study respondents believed that epilepsy is a hereditary disease.

This study revealed that majority of the respondents (53.5%) did not agree to allow a close relative of theirs to marry someone who is epileptic. This finding is confirmed by Henok et al. in a study in Southwest Ethiopia which revealed that majority of the respondents (69.3%) did not agree to their family member marrying an epileptic patient. The findings from these two studies are higher than the study conducted among dentists in London, Ontario which was 5.2% (19). This could be because our study participants believed that this disease is hereditary [38,39].

This study revealed that respondents who do not shake hands with epileptic patients were 54.0%. This was comparable with the studies

conducted in Menit Community of Southwest Ethiopia (53.9%) and 50.8% of respondents in Limpopo Province of South Africa [40].

Conclusion

The findings of this study indicate a favourable knowledge about epilepsy among population and health students. However, they have some negative attitude towards epilepsy patient. Based on that, education about the disease needs to improve since majority of the respondents revealed that they do not have enough knowledge on epilepsy. This can be enhanced through the provision of information about the disease in school which will enable them to understand more about the disease and have better attitude towards people with epilepsy.

References

1. Atalay A (2001) Mental service and epidemiology of mental health service in Ethiopia. *Ethiop Med J* 39: 153-165.
2. Thapa L, Bhandari TR, Shrestha S, Poudel RS (2017) Knowledge, beliefs and practices on epilepsy among high school students of Central Nepal. *Epilepsy Res Treat J* 2017: 1-7.
3. International league against epilepsy (2003). The history and stigma of epilepsy. *Epilepsia* 44: 12-14.
4. Ribeiro-Pais J, Martins da Silva A, Meneses RF, Falco C (2007) Relationship between optimism, disease variables, and health perception and quality of life in individuals with epilepsy. *Epilepsy Behav* 11: 33-38.
5. Kabir M, Iliyasu Z, Abubakar IS, Kabir ZS, Farinyaro AU (2005) Knowledge, attitude and beliefs about epilepsy among adults in a Northern Nigerian urban community. *Ann Afr Med* 4: 107-112.
6. Yoo JK, Jung KY, Park KW (2009) Familiarity with, understanding of, and attitudes toward epilepsy among people with epilepsy and healthy controls in South Korea. *J Epilepsy Behav* 16: 260-267.
7. De Boer HM (2010) Epilepsy stigma: Moving from a global problem to global solutions. *J Seizure* 19: 630-636.
8. Yemadje LP, Houinato D, Quet F, Druet-Cabanac M, Preux PM (2011) Understanding the differences in prevalence of epilepsy in tropical regions. *Epilepsia* 52: 1376-1381.
9. Kale R (1997) Bringing epilepsy out of the shadows. *BMJ* 315: 2-3.
10. Tripathi KD (2008) *Essentials of Medical Pharmacology*. 6th ed. New Delhi: Jaypee Publication.
11. Dalrymple J, Appleby J (2000) Cross sectional study of reporting of epileptic seizures to general practitioners. *BMJ* 320: 94-97.
12. Mulat G, Tesfaye W, Gebremedhin S (2012) Knowledge, attitude and practices with respect to epilepsy among preparatory school students in Mekele city, Ethiopia. *Int J Collab Res Intern Med Public Health* 4: 203-215.
13. Dantas FG, Cariri GA, Cariri GA, Filho AR (2001) Knowledge and attitudes toward epilepsy among primary, secondary and tertiary level teachers. *Arq Neuropsiquiatr* 59: 712-716.
14. Burneo JG, Tellez-Zenteno J, Wiebe S (2005) Understanding the burden of epilepsy in Latin America: a systematic review of its prevalence and incidence. *Epilepsy Res* 66: 63-74.
15. Abdul-Karim MA (2017) Graphic online. Retrieved from Graphic Communications Group limited.
16. Jacoby A, Baker GA, Steen N, Potts P, Chadwicks DW (1996) The clinical course of epilepsy and its psychosocial correlates: findings from a U.K. Community study. *Epilepsia* 37: 146-161.
17. Snape DA (2015) The differences in being different: A narrative analysis of the nature of epilepsy in adults and its problems. Doctoral thesis, University of Liverpool, Liverpool, United Kingdom.
18. Teferi J, Shewangizaw Z (2015) Assessment of knowledge, attitude, and practice related to epilepsy: a community-based study. *Neuropsychiatr Dis Treat* 11: 1239-1246.
19. Sanya EO, Salami TAT, Goodman OO, Buhari OIN, Araoye MO (2005) Perception and attitude to epilepsy among teachers in primary, secondary and tertiary educational institutions in middle belt Nigeria. *Trop Doct* 35: 153-156.
20. Tekle-Haimanot R, Abebe M, Forsgren V (1991) Attitudes of rural people in central Ethiopia toward epilepsy. *Soc Sci Med* 32: 203-209.
21. Rwiza HT, Matuja WBP, Kilonzo GP (1993) Knowledge, attitude, and practice toward epilepsy among rural Tanzanian residents. *Epilepsia* 34: 1017-1023.
22. Recharl L (1990) Psychological issues of epilepsy. *N Engl J Med* 1323: 18-20.
23. Jain S, Tandon P (2004) Ayurvedic medicine and Indian literature on epilepsy. *Neurology Asia* 9: 57-58.
24. Awaritefe A, Longe AC, Awarife M (1985) Epilepsy and psychosis; a comparison of societal attitudes. *Epilepsia* 26: 1-9.
25. Babikar HE, Abbas MI (2011) Knowledge, practice and attitude towards epilepsy among primary and secondary school teachers in South Gezira locality, Gezira State, Sudan. *J Family Community Med* 18: 17-21.
26. Otte WM, Meeuwesse E, Kafiluddin E, Peerdeman SM, Baaijen JC, et al. (2013) Knowledge and beliefs about epilepsy among people with and without epilepsy in urban name. *Epilepsy Behav* 29: 128-132.
27. Alkhamra H, Tannous A, Hadidi M, Alkhateeb (2012) Knowledge and attitudes toward epilepsy among school teachers and counselors in Jordan. *Epilepsy Behav* 24: 430-434.
28. Pandian JD, Santosh D, Kumar TS, Sarma PS, Radhakrishnan K (2006) High school students' knowledge, attitude, and practice with respect to epilepsy in Kerala, southern India. *Epilepsy Behav* 9: 492-497.
29. Mirnics Z, Czikora G, Zavec T, Halasz P (2001) Changes in public attitudes toward epilepsy in Hungary: results of surveys conducted in 1994 and 2000. *Epilepsia* 42: 86-93.
30. Pupillo E, Vitelli E, Messina P, Beghi E (2014) Knowledge and attitudes towards epilepsy in Zambia: A questionnaire survey. *Epilepsy Behav* 34: 42-46.
31. Jacoby A, Gorry J, Gamble C, Baker GA (2004) Public knowledge, private grief: A study of public attitudes to epilepsy in the United Kingdom and implications for stigma. *Epilepsia* 45: 1405-1415.
32. Kassie GM, Kebede TM, Duguma BK (2014) Knowledge, attitude, and practice of epileptic patients towards their illness and treatment in Jimma University Specialized Hospital, Southwest Ethiopia. *N Am J Med Sci* 6: 383-390.
33. Helia G (2013) Public awareness and attitudes towards epilepsy in Tehran, Iran. *Glob Health Action* 6: 216-218.
34. Zainy (2013) Parents' knowledge and attitudes toward children with epilepsy. *Neurosciences (Riyadh)* 18: 345-348.
35. Cecilia E (2009) Knowledge and Attitudes about Epilepsy: A survey of dentists in London, Ontario. *J Can Dent Assoc* 75: 450-459.
36. Henok A, Lamaro T (2017) Knowledge about and attitude towards epilepsy among Menit Community, Southwest Ethiopia. *Ethiop J Health Sci* 27: 47-58.
37. Sudarshan S, Maheshwaran S, Gonsalves J, Prima JJ, Balaji K (2015) Knowledge of epilepsy among 2nd year students of medical fraternity. *Int J Adv Sci Res* 1: 186-190.
38. Harimanana A, Chivorakul P, Souvong V, Preux PM, Barennes H (2013). Is insufficient knowledge of epilepsy the reason for low levels of healthcare in the Lao PDR? *BMC Health Serv Res* 13(41) 13-41.
39. Fabio G, Cariri GA, Ribeiro F (2001) Knowledge and attitudes toward epilepsy among primary, secondary and tertiary level teachers. *Arq Neuropsiquiatr* 59: 712-716.
40. Mangena N (2003). Perceptions about epilepsy in the Limpopo Province of the Republic of South Africa. *Curationis* 26: 51-56.