

Knowledge, attitude, and believes of epilepsy in local communities of Saudi Arabia

Abdulrahman M. Alshahrani¹, Aslam Pathan², Judan Fahad Alruwais³,
Ali Mohammed Alduhayshi³

¹Department of Internal Medicine (Neurology), College of Medicine, Shaqra University, Ministry of Higher Education, Shaqra,

²Department of Pharmacology and Therapeutics, College of Medicine, Shaqra University, ³College of Medicine, Shaqra University, Kingdom of Saudi Arabia

ABSTRACT

Aim of the Study: To assess public knowledge, attitude, and believes toward the epilepsy among local community populations in Shaqra Area, Kingdom of Saudi Arabia. **Methods:** An organized 14 questionnaire was prepared to analyze public knowledge attitudes and believes about epilepsy. Study was conducted randomly in common public places in Shaqra City, Saudi Arabia, during the months of April and May 2016. Sample size includes 155 males and 130 females from Shaqra City of Saudi Arabia. **Results:** The study analyzed the 285 local public including 155 male and 130 female contributors. About 68.38% male contributors and 63.07% female contributors studied Diploma or Bachelor education program. Female contributors (71.53%) were aware about epilepsy as compared with male contributors (58.70%). Maximum number of female contributors (82.30%) believes that epilepsy is treated by medication as compared with male contributors (58.70%). **Conclusion:** The knowledge, awareness, and attitudes of the epilepsy are found to be much improved in local community of Saudi Arabia. In the modern era, people assume that epilepsy is still due to evil spirit. Many contributors think there should be restrictions on driving and getting jobs in epilepsy patient. Public awareness and educational campaigns should be included in modern methods of education to develop well-knowledged community, which will improve the quality of life of epileptic patients.

Keywords: Attitude, believes, epilepsy, knowledge

Introduction

Prevalence rates of epilepsy ranges from 0.9 to 57 per 1,000 population.^[1-3] There are some differences in the reported prevalence rates. The World Health Organization research protocol for neurological disorders in developing countries^[4] has been a major advance in epidemiological research on epilepsy.^[5] Epilepsy is the neurological diseases and is very widespread worldwide, affecting >50 million human life.^[6] The extensiveness of epilepsy is 6.54 per 1,000 in Saudi Arabia.^[5] In developing countries the frequency of epilepsy is greater compared with developed countries.^[7] There is lack of knowledge and awareness about

epilepsy in the common population and even in healthcare professionals.^[8,9] Epilepsy patient face many problems in daily life including employment, education, and social status,^[10,11] due to lack of awareness and false beliefs about epilepsy that reflect the social survival of epilepsy patient.^[12,13] The worldwide healthcare burden related to cost and statistics of epilepsy is similar to that of breast or lung cancer.^[14] Old traditions believe that epilepsy is an evil act.^[15] Pathophysiology of epilepsy suggests transient dysfunction in the brain, fear, and ignorance leads to intolerance.^[16-20]

Methods

The collected data from male and female populations were analyzed in Tables 1 and 2 respectively. An organized 14 questionnaire was prepared to analyze public knowledge, attitudes, and believes about epilepsy [Tables 3 and 4]. Questions

Address for correspondence: Dr. Abdulrahman M. Alshahrani, Department of Internal Medicine (Neurology), College of Medicine, Shaqra University, Ministry of Higher Education, Shaqra, Kingdom of Saudi Arabia.
E-mail: dr.aslam678@gmail.com

Access this article online

Quick Response Code:



Website:
www.jfmipc.com

DOI:
10.4103/jfmipc.jfmipc_425_18

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Alshahrani AM, Pathan A, Alruwais JF, Alduhayshi AM. Knowledge, attitude, and believes of epilepsy in local communities of Saudi Arabia. J Family Med Prim Care 2019;8:1065-9.

were selected by research team drafted in English and Arabic. The study sample was collected between April and May 2016. Study was conducted at the different scattered public areas of Shaqra area including hypermarkets, shopping malls, family gardens, college of education at Shaqra University, and at the Outpatient Department of Shaqra General Hospital, Shaqra, Kingdom of Saudi Arabia. Research proposal, study design, and questionnaire were reviewed and approved by the research unit at the college of medicine, Shaqra University. The aim of the study and questionnaire were described to the contributors. Medical students were assigned to conduct the study in the different places. The names of the contributors were kept confidential to encourage accurate response. Data were analyzed by statistical analysis system. Variables were assessed using Chi-square test. Statistical significance was defined as *P* values of <0.05.

Research approach: Quantitative research approach and research design

Cross-sectional survey design was used to conduct this study.

Research setting: Study was conducted at the different scattered public areas of Shaqra area including hypermarkets, shopping malls, family gardens, college of education, Shaqra University, and at the Outpatient Department of Shaqra General Hospital.

Population: Male and female contributors from hypermarkets, shopping malls, family gardens college of education at Shaqra University and patients from Outpatient Department of Shaqra General Hospital.

Sampling technique: Stratified random sampling technique.

Sample size: 155 males and 130 females.

Sample: The study population included 285 individuals (males and females).

Data collection period: 8 weeks, from April 2016 to May 2016.

Exclusion criteria: Medical doctors and Medical students were excluded from this study.

Inclusion criteria: Male contributors and female contributors above the age of 16 years.

Results

The Study analyzed the 285 local public, including 155 male and 130 female contributors [Tables 3 and 4]. Most participants (55.48% from male contributors and 66.15% from female contributors) were aged 20–40 years [Tables 1 and 2; Figures 1 and 3]. About 68.38% male contributors and 63.07% female contributors studied Diploma or Bachelor education program [Tables 1 and 2; Figures 2 and 4]. Most female contributors (71.53%) reported having prior knowledge of epilepsy as compared with male contributors (58.70%). Source of awareness was

public media (30.30% male and 43.07% female). Most female contributors (70.76%) believed that epilepsy is an organic disease as compared with 44.51% male contributors. The belief about epilepsy reflects the educational level. Educated contributors linked epilepsy to organic cause. However, 10.96% male and 9.23% female contributors also linked epilepsy to evil spirit. About 22.58% male and 31.53% female contributors accept that epilepsy is a psychiatric illness. Genetic cause of epilepsy was accepted by 28.38% male and 46.92% female contributors. Most of the respondents (70.96% male and 80.76% female contributors) thought to allow epileptic patients to live in society with other normal persons. Some of the contributors (34.83% male and 45.38% female) showed positive attitude about jobs of epilepsy

Table 1: Age group and academic level of male population (contributors)

	Frequency	Percentage
Age group (years)		
<20	53	34.19
20-40	86	55.48
41-60	12	7.74
>60	4	2.58
Academic level		
Primary School or less	5	3.22
Intermediate or High School	39	25.16
Bachelor or Diploma	106	68.38
Master or PhD	5	3.22

Table 2: Age group and academic level of female population (contributors)

	Frequency	Percentage
Age group (years)		
<20	33	25.38
20-40	86	66.15
41-60	11	8.46
>60	Nil	Nil
Academic level		
Primary School or less	4	3.07
Intermediate or High School	36	27.69
Bachelor or Diploma	82	68.07
Master or PhD	8	6.15

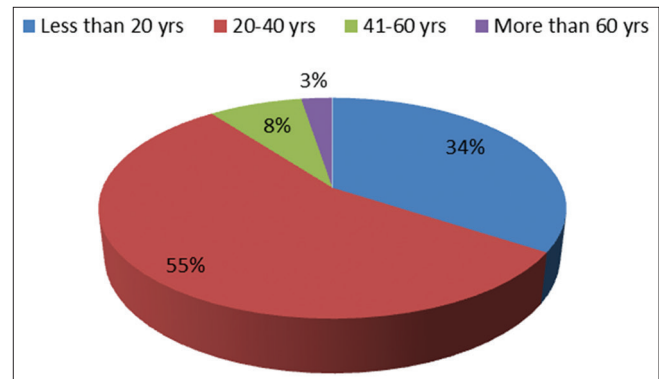


Figure 1: Age group of male population (contributors)

Table 3: Questionnaires on epilepsy and percentage of male response

Questions	Response	Male	
		Frequency	Percentage
Have you ever heard or read about epilepsy?	Yes	91	58.70
	No	43	27.74
	Not sure	21	13.54
If Yes, where did you obtain information about epilepsy?	Public Media	47	30.32
	Health Awareness Program	17	10.96
	Doctors or Health Professionals	07	4.51
	Patients or relatives of epileptic patients	43	27.74
	Research Studies	03	1.93
Epilepsy is an organic disease?	Agree	69	44.51
	Disagree	14	9.03
	Do not know	62	40.00
Epilepsy is nonorganic condition caused by possession of evil spirit or others?	Agree	17	10.96
	Disagree	82	52.90
	Do not know	56	36.12
Epilepsy is a Psychiatric illness (nonorganic)	Agree	35	22.58
	Disagree	55	35.48
	Do not know	56	36.12
Majority of epilepsy cause are genetic or hereditary in origin	Agree	44	28.38
	Disagree	28	18.06
	Do not know	83	53.54
Do you think that epileptic patients can live in the society like other normal persons?	Yes	110	70.96
	No	18	11.61
	Not sure	27	17.41
Do you think that epileptic patients can join any job without restrictions?	Yes	54	34.83
	No	61	39.35
	Not sure	40	25.80
Do you think that epileptic patients can obtain driving license and drive without restrictions?	Yes	38	24.51
	No	75	48.38
	Not sure	42	27.09
Do you agree that epileptic patients should not tell his diagnosis to the others to avoid social stigma?	Yes	41	26.45
	No	83	53.54
	Not sure	31	20.00
Do you think that epileptic patients are usually having low IQ?	Yes	16	10.32
	No	78	50.32
	Not sure	61	39.35
Epilepsy is treated by	Medications	91	58.70
	Surgery	10	6.45
	Herbal medicine	24	15.48
	No cure	30	19.35
The branch of medicine primarily concerned with the diagnosis and treatment of epilepsy is	Neurology	78	50.32
	Psychiatry	22	14.19
	Alternative medicine	6	3.87
	Do not know	49	31.61

patients without any restrictions. Only few contributors (24.51% male and 26.15% female) allowed epileptic patient to drive. About 26.45% male and 23.07% female contributors agreed that epileptic patients should not tell his diagnosis to the others to avoid social stigma. About 10.32% male and 6.92% female contributors believed that epileptic patients are usually having

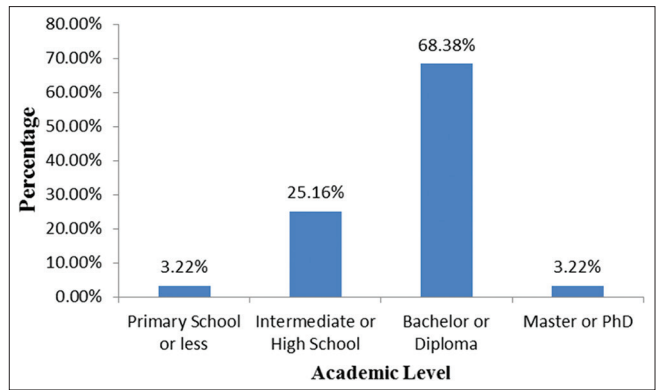


Figure 2: Academic level of male population (contributors)

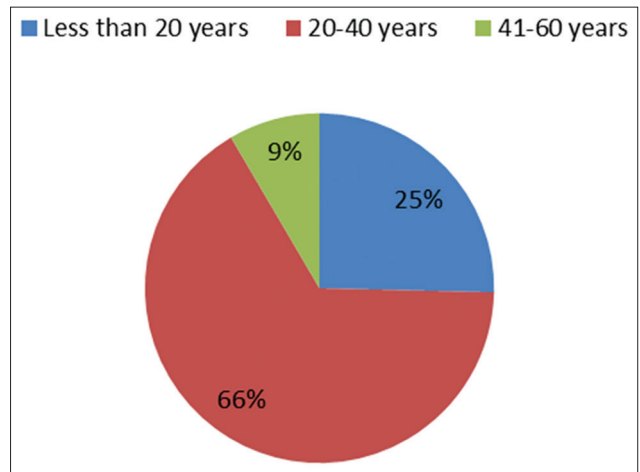


Figure 3: Age group of female population (contributors)

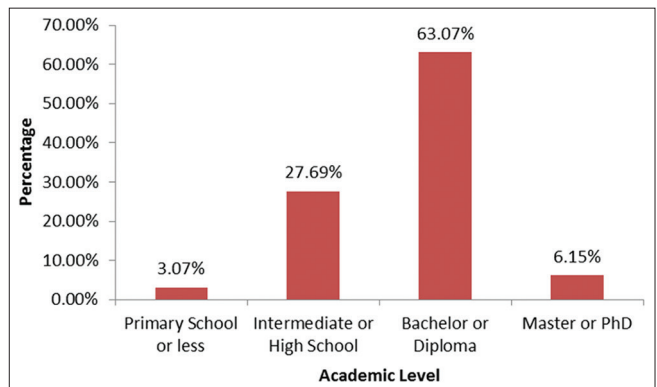


Figure 4: Academic level of female population (contributors)

low IQ. Maximum number of female contributors (82.30%) than male contributors (58.70%) believed that epilepsy can be treated by medication. About 50.32% male and 76.15% female contributors agreed that Neurology deals with the diagnosis and treatment of epilepsy.

Discussion

The knowledge, awareness, and attitudes of the epilepsy are much improved in local community of Saudi Arabia.

Table 4: Questionnaires on epilepsy and percentage of female response

Questions	Response	Female	
		Frequency	Percentage
Have you ever heard or read about epilepsy?	Yes	93	71.53
	No	22	16.92
	Not sure	15	11.53
If Yes, where did you obtain information about epilepsy?	Public Media	56	43.07
	Health Awareness Program	30	23.07
	Doctors or Health Professionals	03	2.30
	Patients or relatives of epileptic patients	41	31.53
	Research studies	07	5.38
Epilepsy is an organic disease?	Agree	92	70.76
	Disagree	12	9.23
	Do not know	27	20.76
Epilepsy is nonorganic condition caused by possession of evil spirit or others?	Agree	12	9.23
	Disagree	90	69.23
	Do not know	28	21.53
Epilepsy is a psychiatric illness (nonorganic)	Agree	41	31.53
	Disagree	59	45.38
	Do not know	31	23.84
Majority of epilepsy cause are genetic or hereditary in origin	Agree	61	46.92
	Disagree	22	16.92
	Do not know	50	38.46
Do you think that epileptic patients can live in the society like other normal persons?	Yes	105	80.76
	No	11	8.46
	Not sure	14	10.76
Do you think that epileptic patients can join any job without restrictions?	Yes	59	45.38
	No	48	36.92
	Not sure	23	17.69
Do you think that epileptic patients can obtain driving license and drive without restrictions?	Yes	34	26.15
	No	58	44.61
	Not sure	40	30.76
Do you agree that epileptic patients should not tell his diagnosis to the others to avoid social stigma?	Yes	30	23.07
	No	69	53.07
	Not sure	31	23.84
Do you think that epileptic patients are usually having low IQ?	Yes	9	6.92
	No	80	61.53
	Not sure	41	31.53
Epilepsy is treated by	Medications	107	82.30
	Surgery	4	3.07
	Herbal medicine	10	7.69
	No cure	10	7.69
The branch of medicine primarily concerned with the diagnosis and treatment of epilepsy is	Neurology	99	76.15
	Psychiatry	8	6.15
	Alternative medicine	8	6.15
	Do not know	21	16.15

Maximum female contributors had prior awareness about epilepsy; they assumed that epilepsy is an organic disease as compared with male contributors. Source of knowledge is education and electronic media. However, 10.96% contributors think epilepsy is due to evil spirit possession. This is lower than the 40% rate that was reported earlier

from the Saudi Arabia, United Arab Emirates (13.8%), and Kuwait (24%) study.^[21-23] About 19.35% contributors believes that there is no cure for epilepsy.

About 82.30% female contributors think that epilepsy is treated by medication as compared with 58.70% male contributors. One of the studies related to public awareness and attitude toward epilepsy indicates some improvement in public awareness and attitude toward epilepsy. However, 15% contributors in study think the cause of epilepsy is an evil act.^[24]

Conclusion

The knowledge, awareness, and attitudes of the epilepsy are found to be much improved in local community of Saudi Arabia. In the modern era, people assumes that epilepsy is still due to evil spirit. Many contributors think restrictions on driving and getting jobs in epilepsy patient. Public awareness and educational campaigns should be included in modern methods of education to develop well-knowledged community that will improve the quality of life of epileptic patients.

Acknowledgements

The authors are thankful to Shaqra University, Ministry of Higher Education, Kingdom of Saudi Arabia, for providing platform to encourage research and developments among the students, staff, and society.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

- Sander JW, Shorvon SD. Epidemiology of the epilepsies. *J Neurol Neurosurg Psychiatry* 1997;62:679.
- Sander JW, Shorvon SD. Epidemiology of the epilepsies. *J Neurol Neurosurg Psychiatry* 1996;61:433-43.
- Schoenberg BS. Recent studies of the epidemiology of epilepsy in developing countries. A coordinated program for prevention and control. *Epilepsia* 1987;28:721-2.
- World Health Organization Protocol: Epidemiologic Studies of Neurological Disorders. Geneva, WHO, 1981.
- Al Rajeh S, Awada A, Bademosi O, Ogunniyi A. The prevalence of epilepsy and other seizure disorders in an Arab population: A community-based study. *Seizure* 2001;10:410-4.
- Scott RA, Lhatoo SD, Sander JW. The treatment of epilepsy in developing countries: Where do we go from here? *Bull World Health Organ* 2001;79:344-51.
- Ropper AH, Adams RD, Victor M, Samuels MA, Ropper AH. Adams and Victor's Principles of Neurology. 9th ed. New York: McGraw-Hill Medical; 2009.
- Jensen R, Dam M. Public attitudes toward epilepsy in Denmark. *Epilepsia* 1992;33:459-63.

9. Al-Adawi S, Al-Ismaily S, Martin R, Al-Naamani A, Al-Riyami K, Al-Maskari M, *et al.* Psychosocial aspects of epilepsy in Oman: Attitude of health personnel. *Epilepsia* 2001;42:1476-81.
10. Jacoby A. Impact of epilepsy on employment status: Findings from a UK study of people with well-controlled epilepsy. *Epilepsy Res* 1995;21:125-32.
11. El-Hilu SM. Social aspects of epilepsy in Kuwait. *Int J Soc Psychiatry* 1990;36:68-73.
12. Kim MK, Kim IK, Kim BC, Cho KH, Kim SJ, Moon JD. Positive trends of public attitudes toward epilepsy after public education campaign among rural Korean residents. *J Korean Med Sci* 2003;18:248-54.
13. Alaqeel A, Sabbagh AJ. Epilepsy; what do Saudi's living in Riyadh know? *Seizure* 2013;22:205-9.
14. Burneo JG, McLachlan RS. When should surgery be considered for the treatment of epilepsy? *CMAJ* 2005;172:1175-7.
15. Burneo JG. Sonko-Nanay and epilepsy among the Incas. *Epilepsy Behav* 2003;4:181-4.
16. Baker GA, Brooks J, Buck D, Jacoby A. The stigma of epilepsy: A European perspective. *Epilepsia* 2000;41:98-104.
17. Baskind R, Birbeck GL. Epilepsy-associated stigma in sub-Saharan Africa: The social landscape of a disease. *Epilepsy Behav* 2005;7:68-73.
18. Paschal AM, Ablah E, Wetta-Hall R, Molgaard CA, Liow K. Stigma and safe havens: A medical sociological perspective on African-American female epilepsy patients. *Epilepsy Behav* 2005;7:106-15.
19. Jacoby A, Snape D, Baker GA. Epilepsy and social identity: The stigma of a chronic neurological disorder. *Lancet Neurol* 2005;4:171-8.
20. Amoroso C, Zwi A, Somerville E, Grove N. Epilepsy and stigma. *Lancet* 2006;367:1143-4.
21. Obeid T, Abulaban A, Al-Ghatani F, Al-Malki AR, Al-Ghamdi A. Possession by 'Jinn' as a cause of epilepsy (Saraa): A study from Saudi Arabia. *Seizure* 2012;21:245-9.
22. Bener A, al-Marzooqi FH, Sztriha L. Public awareness and attitudes toward epilepsy in the United Arab Emirates. *Seizure* 1998;7:219-22.
23. Awad A, Sarkhoo F. Public knowledge and attitudes toward epilepsy in Kuwait. *Epilepsia* 2008;49:564-72.
24. Muthaffar OY, Jan MM. Public awareness and attitudes toward epilepsy in Saudi Arabia is improving. *Neurosciences (Riyadh)* 2014;19:124-6.