

Original Research Article

Knowledge toward epilepsy among Ardabil Medical University students: North-West of Iran

Vahid Abbasi¹, Abolfazl Atalu^{1*}, Firouz Amani², Hadi Feizollahzadeh³

¹Department of Neurology, ²Department of Community Medicine, Faculty of Medicine, Ardabil University of Medical Science, Ardabil, Iran

³Department of Anesthesiology, Faculty of Para-Medical, Ardabil University of Medical Science, Ardabil, Iran

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*Correspondence:

Dr. Abolfazl Atalu,

E-mail: a.atalu@arums.ac.ir

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ABSTRACT

Background: Medical university students is a better group of society that should be had correct and good knowledge about healthcare issues such as epilepsy. Epilepsy is a common neurologic disease that caused to many problems in patient's life. This study aimed to evaluate the knowledge of medical students toward epilepsy in Ardabil province.

Methods: A cross-sectional descriptive survey was conducted in Ardabil province (Northwest of Iran) in 2017. Over a one-month period, 130 students selected randomly from all medical, paramedical, nursing and health students and completed the self-administered questionnaire which provided for this study. Collected data analyzed by statistical methods in SPSS version 19.

Results: Of all students, 83.1% were girls and rests of them were boy. Of all students 20% had good and 56.2% had moderate knowledge about epilepsy. Many of students in all fields had moderate knowledge and there wasn't significant relation between field, semester and knowledge rate. Most of boys with 54.5% had week and most of girls with 58.3% had moderate knowledge and there was significant relation between sex and knowledge rate.

Conclusions: Results showed that most of students in this study had moderate knowledge about epilepsy. Students had poor knowledge about important point about diseases such as treatment, diagnosis. Providing necessary training programs for knowing this disease in future for students is essential.

Keywords: Ardabil, Epilepsy, Knowledge, Students

INTRODUCTION

Epilepsy is a common neurologic disorder that occurred as frequent seizures. If seizure attacks at least two or more time occurred or longer than normal state which occur only one time is called epilepsy.¹

Epilepsy is a brain chronic disease that usually occurs as seizure and or distractions that occur in short time and his signs are different by epilepsy type. Seizure attack usually occur suddenly and start almost without any

alarm sign and long for some minute and then person does not remember anything about the events. There is some evidence that it is susceptible to certain types of hereditary epilepsy. Epilepsy often occurs due to many medical disorders such as trauma, medication, poisoning, or alcohol. Epilepsy cannot be cured, but attacks can be controlled with medication up to 70%. In people who do not respond to drugs, surgery, nerve stimulation, or dietary changes can be considered. All epilepsy syndromes are not lifelong, and most people recover so much that they no longer need to take medication. About

1% of world people (65 million) had epilepsy and almost 80% of cases occur in developing countries. Epilepsy is common in agent people. In developed countries, the prevalence of new cases in infants and agents was more. In developing countries this disease is mostly seen among infants and adolescents that its reason due to difference in main causes rate. About 5 to 10% of people had one suddenly attack until age 80 and the chance for second attack among them was between 40 to 0%. Specialists believe that about 70 to 80% of epilepsy patients after two-year treatment, treated completely and cut their medication.²

In totally epilepsy divided in two groups general and partial which is a remarkable difference in maintaining alertness during an attack that loses self-awareness in general epilepsy. In really, the people knowledge and attitude on epilepsy can be effective on mental and social dimension of their quality of life.

Yearly one thousand deaths occurred in UK due to epilepsy that their main reasons were frequent and resistant seizures, depression, suicide and trauma that the rate of mortality in People with epilepsy was 2 or 3 times more than normal people.^{3,4}

Epilepsy can have worst impact on social and mental of people. These effects probably included Social isolation, notoriety or disability. These effects may result in poor academic performance and worse job problems. Special disorders occur in epilepsy people that called epilepsy syndrome. These disorders included depression, anxiety and migraine. Lack of attention and hyperactivity disorder in children with epilepsy is three to five times higher than normal children in the community.^{1,5,6}

The rate of knowledge towards epilepsy in people of in developing countries lower than people in developed countries. Statistics showed that the rate of suffering to epilepsy in developed countries was 6 to 7 per 1000 and in industrial countries were 49 per 1000 and in our country the suffering rate 2.5 more than European countries. Negative attitude to epilepsy due to lack of knowledge about epilepsy. According to the statistics, in Iran most of cases and their families try to hide their diseases. So, the first step for correction this negative attitude, was increasing the knowledge of society people towards epilepsy.⁷⁻⁸ In this study, the attitude and knowledge rate of students as people which related more with health and diseases was important and this study aimed to evaluate the knowledge of medical students toward epilepsy in Ardabil province.

METHODS

This is a descriptive cross-sectional study that has been done in Ardabil city on Ardabil University of medical science students in 2017. Over a one-month period we selected 130 students from all medical science students and entered in the study.

Data collection method

Data collected by a self-administrated questionnaire included 16 questions about history of disease, diagnosis, treatment and the effect of disease on people life and also demographic data such as age, sex, educational field and students' grade which collected by interview. Most of the questions were adapted from previous studies. Students were required to select the correct answer and the total knowledge scores were classified in three groups: less knowledge (1-4), moderate (5-8) and high (9-12).

Statistical analysis

Collected data analyzed by using descriptive statistical methods such as table, graph and statistical indexes in SPSS version 19.

RESULTS

The mean age of students was 21.3 year. Of all students, 83.1% were girls and rests of them were boys. 75.4% were in General doctoral grade. 33.1% were in third semester and most of them were from nursing and midwifery faculty.

Table 1: Demographic data of students.

Variables	n	%	
Sex	M	22	16.9
	F	108	83.1
Fields	Health	30	23.1
	Pharmacology	3	2.3
	Dentistry	2	1.5
	Medicine	2	1.5
	Nursing	43	33.1
	Para-medical	50	38.5
Semester	1	8	6.2
	2	8	6.2
	3	43	33.1
	4	4	3.1
	5	35	26.9
	6	8	6.2
	7	24	18.5

In terms of students, stroke, Thalassemia and hereditary diseases with 1.5%, 7.7% and 20% are the common diseases that deal to epilepsy occurrence, respectively. Of all students, 70% had true knowledge about epilepsy. 51.1% of students mistakenly did not consider the lack of calcium to exacerbate epilepsy. While 12.3% of them correctly understood the lack of oxygen as a factor that did not exacerbate epilepsy.

The results show that, 91.5% of people correctly believe that one-way brain damage causes partial epilepsy. Also, 8.5% believe that this damage will cause to general epilepsy and hadn't true knowledge about epilepsy. In

about the most important and most practical way to diagnose epilepsy, 24.6% of students referred to MRI and 75.4% referred to other methods. 63.1% of students had true attitude about general epilepsy and other students hadn't true attitude about epilepsy. In term of partial epilepsy, 29.8% of students truly referred to eclipse of the knee and also 13.7% believed that the vision changes are the sign of partial epilepsy and totally 91.5% of all students had true knowledge about this topic.

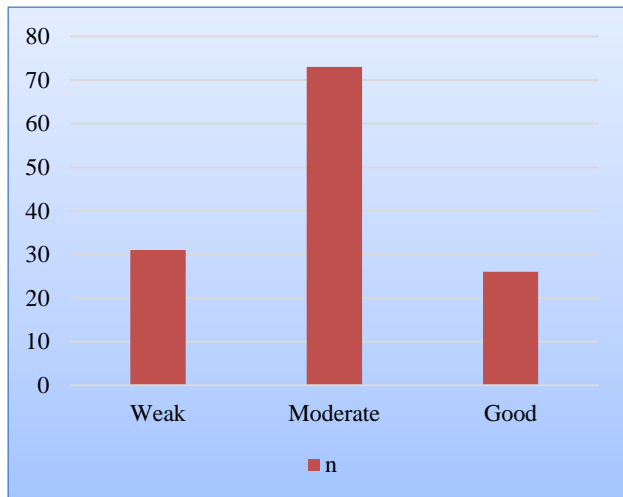


Figure 1: The rate of knowledge among students.

Regarding the first action when seeing a patient with epilepsy, 54.6% pointed to the keep calming, 4.6% to artificial respiration, 26% to Putting a finger in the mouth and 14.5% Twisting the patient. Of all students only 14.6% had true knowledge about this topic.

27.7% of students stated that they could be married to patients with epilepsy and became pregnant. In relation to an infection that occurs with epilepsy, 90.1% had false response. Only 21.5% of students had true response to the true definition of seizure

DISCUSSION

Results of this study showed that 13.1% of samples don't recognize the epilepsy due to neurological problems. In similar study 74.3% recognize epilepsy as a brain disease while 27.7% known it as a mental disease.¹

Also, in Dehghani et al study, 84% of samples recognize epilepsy as a mental disease. Similar results show that 10% of study people known epilepsy as a contagious disease, 27.7% as a mental disease and 74.3% as a brain disease. While only one third of samples in Malaysian study able to diagnosis epilepsy as a brain disease.^{1,9}

In this study 19.8%, 13.1% and 51.1% of students knew problems during pregnancy, neural problems and anemia as main risk factors for epilepsy, respectively and 16% of students hadn't true knowledge about epilepsy. While in Gharegozli and et al study most of samples know the

brain lesions and genetic problems as main reasons for epilepsy that in line with our study results.²

In this study, 54% of samples stated the keep calming when seen the epilepsy patient. In Kazemi and et al study more than 90% of samples pointed to actions such as stay near the patient until arriving emergency personnel, loosening his tight clothing around the neck and preventing falling. In this study, 21.5% of students had true response to the true definition of seizure.¹ In this study 27.5% of students stated that they could be married to patients with epilepsy and became pregnant. In Gharegozli and Samir et al study, this rate was 56.9% and 72.5% which was upper than our study rate.^{2,6}

Also, in one study 9% of samples believed that the epilepsy Epilepsy is untreated or requires no treatment. In similar study in Thailand 47% of teachers believed that epilepsy is a chronic disease.¹⁰⁻¹¹ In a study that was conducted among Chinese residents in Malaysia, 80% of them said that they recommend referral to a specialist physician, 11% say using herbal treatment and 2% say using acupuncture as a treatment to their friends with epilepsy.⁹

In the study of Inanlou et al, 16.1% believed that almost always and 41.1% believed that the disease was usually controlled with medication.⁸ 44.6% of samples consider to headache and in similar study 75% consider Shake the entire body, exhale from the mouth and bite the tongue as a Seizure Symptoms.⁴

In another study conducted in Malaysia, 91% of the respondents answered the question about hearing or studying about epilepsy, which was similar to the studies done in Asia. Also, in this study 33% of students seen before the occurrence of epilepsy.⁹ In Kazemi et al study, superstitious causes included prayer, evil spirits or gnosis, magic, eating and curse with 10%, 4.7%, 4%, 2.7% and 3.7% are the responses of samples, respectively. In a study in Malaysia, however, they considered prayer as a complement to treatment, most of which related to Muslim regions.^{1,9}

CONCLUSION

Results showed that most of students had moderate knowledge about epilepsy. In summary, the rate of student's knowledge about type of epilepsy and its symptoms was in moderate level. Of course, we cannot extend this statistic to all Ardabil Medical University students because various fields had different knowledge rate about epilepsy.

This study showed that students had moderate awareness on how to deal with people with epilepsy and how to diagnose the disease, which we need to provide necessary training courses in the form of a clip for raising their knowledge about epilepsy by, expanded the communication channels at the university. Another issue

that should be studied were variables such as the level of culture and place of residence of people (city, village), as well as the rate of using educational channels on social networks by people. Based on statistical data in similar studies, internal and external, the level of culture has had a significant impact on people's attitudes and influences the flow and direction of thinking about the disease and the affected population. Therefore, more education and raising awareness of epilepsy among students is necessary, and it is also necessary for people with epilepsy to be trained more.

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