

ISSN No: 2319-5886

International Journal of Medical Research & Health Sciences (IJMRHS), 2023, 12(8): 1-11

The Misconceptions about Epilepsy Disease within Health Sector Workers in the City of Tabuk, Saudi Arabia

Neda Kheder Khalid Faraj^{1*}, Khalid Mohammed Ali Aljohani², Yazeed Ahmed Zaal Albalawi², Abdulrahman Mohammed Khalaf Albalawi², and Ibrahim Abdullah Mohammad Hariri³

¹Pediatric neurologist (Saudi Board Certified) working in Maternity and Children Hospital,
Ministry of Health, Tabuk, Saudi Arabia

²Medical Interns from University of Tabuk, Saudi Arabia

³General Practitioner, King Salman Armed Forces Hospital (Military Hospital), Tabuk, Saudi
Arabia

*Corresponding e-mail: <u>Dr.nedafaraj@hotmail.com</u>

Received: 25-July-2023, Manuscript No. ijmrhs-23-108816; Editor assigned: 27-July-2023, Pre-QC No. ijmrhs-23-108816(PQ); Reviewed: 5-August-2023, QC No. ijmrhs-23-108816(Q); Revised: 8-August-2023, Manuscript No. ijmrhs-23-108816(R); Published: 30-August-2023, J-invoice: J-108816

ABSTRACT

Epilepsy is a neurological disorder characterized by recurrent seizures, which are caused by abnormal electrical activity in the brain. One of the main issue and concern about epilepsy in Saudi Arabia is the lack of information about the disease, or the medical staff's poor knowledge due to insufficient experience and lack of awareness. The study's main objective is to identify the misconceptions circulated within health sector workers in the city of Tabuk. The researcher seeks to apply the specific study sample for several health centers and hospitals in Tabuk. Quantitative research had been sitting for 368 health/medical workers by using Google Forms. 65.7% of those who have relatives suffer from epilepsy declare that the attending physician did not clearly explain the nature of the disease, including the causes, treatment and first aid. And 63.4% of health care workers had no experience about epilepsy, and 62.7% of them did not participate in courses or conferences before. Also 40.7% of them had no prior experience of febrile seizures. 76.7% of the participants believe that they cannot relate to a person with epilepsy. This research proved that a high percentage of the Saudi society in Tabuk have misconceptions about epilepsy. The main reason for the nullification of treatment's effect is the interaction of the surrounding environment towards the conflict disease through misconceptions in advance, which limit the effectiveness of positive progression of the disease with treatment and appropriate medical care.

Keywords: Epilepsy, Tabuk, Health sector, Misconceptions, Saudi Arabia, Disease

INTRODUCTION

Epilepsy is a brain disorder that comes in the form of a seizure in which the patient experiences severe convulsions and loses consciousness [1]. Epileptic seizures are very unpleasant and can occur in situations with other dangers to the patient; for example, if a person has epilepsy, the seizure can occur while crossing a street, crossing a hill, or driving, leading to serious injuries and even death. It is also a brain electrical disorder, and epileptic seizures and

epilepsy are different names for this disease, which is the old name before the discovery of the nature of the disease [2]. It may concern a part of the body (partial) or the whole body (general); some types of epileptic seizures are non-convulsive.

According to the World Health Organization statistics (2022), about 50 million people live with epilepsy all over the world, and about 90% of those infected live in developing regions, and epilepsy responds to treatment in 70% of cases [3]. It is reported that epilepsy is divided into partial epilepsy and systemic epilepsy, and partial epilepsy results from changes in one part of the brain that are not accompanied by loss of consciousness. Johnson (2019) stated that changes occur in the human body according to the area where the seizure occurs. If it appears in the area of the person's ability to speak, the patient loses the ability to speak [4]. If it occurs in the area of sensation, the patient loses the ability to feel. At the same time, comprehensive epilepsy is divided into typical and atypical absence epilepsy [5]. The patient appears in the case of stereotypical epilepsy as if in a state of normal fugue, so this type needs careful observation by the parents to distinguish it. More than 100 times a day, this type of epilepsy responds to treatment in a large proportion.

Many people think epilepsy is a psychological disorder or mental retardation - this impression is completely wrong. But just as a person with epilepsy may have diabetes or another disease simultaneously, a person with epilepsy may sometimes have a mental illness. Seeing some examples of people with both conditions does not mean that all patients with epilepsy have mental retardation [6]. Also, people with epilepsy, like other members of society, are very intelligent, and some are very normal, and this disease has nothing to do with mental retardation. To this date, epilepsy is not completely cured. Treatment should be regularly continued to control and reduce seizures and symptoms because epilepsy is a chronic disease [7]. Unfortunately, with the prejudices of people with epilepsy, in addition to a tolerance of illness and medication, they have to deal with information, wrong judgments, and myths associated with the disease, such as claims that it is possible to recover from it by unscientific behavior fully. These unconscious behaviors put a lot of pressure on people with epilepsy and do nothing for them [8].

The most prominent obstacle that prevents the epilepsy patient from being cured is the spread of false beliefs that link him to the touch of the jinn, which considers epilepsy to be a disease that is curable by up to 50%, especially in children [9]. The habit of these beliefs led some patients to miss their appointments due to wrong thoughts from which the educated parents were not spared. An example is a smart and academically superior child who has epilepsy. However, her parent's failure to comply with the treatment led to a relapse of her condition after stopping her treatment based on the therapist's advice. This action left her to suffer a continuous convulsion for more than 4 hours and caused a lack of oxygen to the brain cells and thus leading to a severe decrease in her mental abilities [10].

The Objective of the Study

The Study's main objective is to identify the misconceptions circulated by/within health sector workers in the city of Tabuk about epilepsy. Where there are hundreds of health workers who have direct contact with epilepsy patients and their families in the city, dozens of epilepsy patients also visit health centers for treatment, whether medical or psychological, to alleviate the severity of the disease in daily life. Although health workers have experience dealing with epilepsy patients, it must be mentioned that drug treatment is the most popular way in our Arab world or Saudi Arabia to deal with epilepsy patients. In contrast, the psychological aspect that has the greatest impact on the lives of epilepsy patients has been neglected. Whether at home or in the community.

The false beliefs practiced by some health workers nullify the effect of the drug treatment that epilepsy patients receive in health centres. Hence, this aspect must be studied to ensure that health workers have full knowledge and awareness of the correct beliefs that must be circulated in dealing with epilepsy patients and that epilepsy patients are not persecuted because of the wrong beliefs practiced against them.

LITERATURE REVIEW

The social effects of epilepsy vary from one patient to another and from one age to another. Excessive protection of a child by parents or relatives, along with constant fear for the child, may negatively affect the child's confidence in their abilities [11]. This may lead to taking advantage of the possibility of having an epileptic seizure to obtain his demands at home or to refrain from going to school. This model is considered one of the destructive models from

many sides, but fortunately it can be overcome through meetings that take place between the social worker and the student and his family. The social worker can also help the student and his family to realize his own responsibilities that will lead him to success or failure in life [12].

Sometimes the adolescent epilepsy patients try to hide the situation or may act aggressively with those around him. He may decide to start rejecting others before they reject him, which may lead to a decrease in his abilities and social skills, due to his lack of contact with society [13]. Also, his lack of respect and self-esteem is reflected in indifference. On the other hand, the side effects of the drug lead to slowness in his ability to speak, which makes him increasingly distant from the rest of his peers. Also, Brodie and others (2016) pointed those seizures in adolescents and adults may be considered aggressive behavior from the point of view of others [14]. This behavior may be taken by others and interpreted as a deliberate provocation or act resulting from the use of alcohol or drugs. If a person tries to catch the injured patient during the seizure, he may be beaten as an involuntary reaction, and this is recorded on the injured patient as misconduct. It is possible to avoid this reaction by directing him in a gentle manner. Therefore, it is important for the specialist to know that this problem faced by the patient may be the result of a type of epileptic seizure that the patient may have.

Misconceptions

People with epilepsy also have to deal with the fact that most people don't realize how much science has come in treating and understanding the nature of epilepsy [15]. Many people still cling to misinterpretations about epilepsy. First, many people believe that the cause of the epilepsy is a genetic cause, and in fact it is possible for the disease to occur in many ways, especially through head injuries, and they also believe that a person with epilepsy is a person with mental illness or mental retardation, and this is a wrong belief because both of them are separate cases [16]. Also, managers, teachers, and decision-makers in the community believe that the abilities of people with epilepsy are less than those of their non-affected colleagues. Their colleagues are also afraid of catching an infection or getting something as a result of a seizure, or that the affected person has an epilepsy seizure at any time and this is not true. In fact, at least 50% of epileptic seizure sufferers - and up to 85% - can have complete, long-term, and complete control using currently available treatment. This means months or even years without a seizure of any kind [17].

The Second misconception, epilepsy patients lose consciousness and have convulsions. The most common seizure we see on TV is called a tonic-clonic seizure [18]. This is where a person falls to the ground and begins to shake. Often in movies and on television, the patient begins to excrete white foam from the mouth, but this is not always the case. In fact, tonic-clonic seizures are one of many different types of seizures, some of which include rapid muscle spasms, brief loss of consciousness, and confusion or tremors [19]. Not all epileptic seizures lead to convulsions or loss of consciousness, as people claim or fear. Additionally, hugging a person with epilepsy tightly to prevent harm is not recommended. Restraining an epilepsy patient during a seizure is likely to agitate or harm the person experiencing the seizure or even yourself. The seizure will continue its course and restraining the person will not stop or slow it down [20]. So do not try to stop a seizure by restraining the patient. Instead, protect the person from injuring himself by removing any harmful objects that may be nearby. Cushion the person's head and gently place them in the recovery position when the seizure is over. Stay with the person until recovery is complete.

Thirdly, Rossi and others (2020) have stated some believe that something should be put in the mouth of an epileptic patient to stop him from swallowing his tongue during a seizure [21]. It is physically impossible to swallow their tongue because the person is unable to control their muscle movements during the seizure and may bite the object, break their teeth, or hurt their mouth/jaw (you may also hurt yourself in the process). This superstition stems from the misconception that during a seizure, people can swallow their tongue or choke. In fact, it is physically impossible to swallow your tongue and you should not put something in the mouth of epileptic patient seizure or try to hold their tongue [22]. They can damage teeth, perforate the gums, or even break someone's jaw. You also risk getting bitten if you try. Adil (2017) indicates that the tongue is a large muscle that is rooted in the throat and the base of the mouth by large ligaments [23]. However, it is possible to hurt your tongue if you inadvertently bite it during a seizure. Therefore, anything else placed inside the patient's mouth may make it difficult to breathe. For this

reason, you should not put a spoon, a finger, or any other foreign object in the mouth during a seizure. Doing so could completely block the airway and potentially harm/kill the epilepsy patient.

Then, if an epileptic seizure occurs, the patient must go to the hospital. Not all seizures require hospitalization [24]. Most often, a person will need time to rest and recover after the seizure, which they may be able to do at work, school or home. Seeing someone having a seizure can be very frightening and instinctively make people call an ambulance. But this is not always necessary. An uncomplicated seizure in a person with epilepsy is not considered a medical emergency, although it may appear to be. The seizure naturally stops after a few minutes without bad effects [25]. Normal epilepsy patients are able to carry on with their work after a short period of rest, and may need only limited (or don't need) assistance to resume their daily activities. It may be helpful to check whether the patient wears a medical bracelet around their neck or on their wrist to determine if the person has previously had epilepsy.

The Research Design and Methodology

Quantitative research design had been sitting for illustrating the descriptive phenomena among the population. Weinstein (2015) describe the sample size is "the number of units that make up the population" Since the samples we deal with are a specific sample, so, a cross sectional sample is selected to identify and represent the entire population of the study to get more accurate data [26]. For those who are in range of the time limits of the Study, to achieve its objectives, the researcher seeks to apply the specific study sample for several health centers and hospitals in Tabuk to track the problem of misconception beliefs circulated by health workers towards epilepsy patients. The researcher chooses the specific sample to narrow the research circle to the maximum extent that allows him to move within the spatial and temporal limits of the research.

It has been estimated that the prevalence of epilepsy in Saudi Arabia is 6.54 per 1,000 people [27]. According to Saudi General Authority report (2021) Tabuk's population is around 791,535 people. So based on Alshurem result, the estimated epilepsy patients may reach 121,000 in Tabuk [28]. The health workers who had a basic and good knowledge about epilepsy is 8,200 (Saudi Health Ministry, 2022) and divided to 1876 doctor, 3972 nurse and 2352 auxiliary medical classes [29]. After the calculation and taking in consideration 95% confidence Level, 5% margin of error and 5% Confidence Interval, the suitable sample size is 368 participants.

For the descriptive study, it is necessary to use a questionnaire. The questionnaire will be distributed to 368 health workers by using Google Forms. The participants access the Google Form and answer all the 25 questions in a period not exceeding 5 minutes. The questionnaire consists of 3 sections to measure the health workers' awareness and to approve the questionnaire validity and accuracy, the researcher asks tow experts in medical field to check it and they approved after a several of amendments. The pilot study has been conducted for 30 participants to verify the validity and stability of the questionnaire. To verify the stability of the study axes, Cronbach's alpha coefficient was used, and the results were as shown in the table 1.

Table 1 The stability of the general questionnaire

		Objective	Correc ted link	Cronbach's alpha when deleting the element
	1	Do you have prior knowledge of the difference between seizures and their potential triggers and epilepsy?	0.622	0.565
x	2	Do you have prior knowledge of febrile seizures?	0.479	0.594
memory	3	What is the medical definition of febrile seizures?		0.659
Cognitive me	4	Does anyone in your family or relatives have febrile seizures or epilepsy?	0.018	0.659
	5	If yes (to the previous question), has the attending physician or the person responsible for the case previously explained the nature of the disease clearly, including the causes, treatment and first aid?	0.122	0.651
	6	Do you think that epilepsy is due to possession by a jinni or envy?	0.062	0.654
	7	What is the analysis or medical examination to diagnose epilepsy?	0.207	0.641
	8	Did you know that people with epilepsy partially lose memory at the time the condition occurs but not in all types of seizures (convulsions)?	0.554	0.58

	9	Do you think that epilepsy is a disgrace to the individual in society?	0.034	0.656
•	10	Is it possible for you to be related to someone with epilepsy?	0.127	0.655
ulture	11	Do you think that family medical history and kinship (genetic factor) is important and has an impact on the treatment plan and evaluation of epilepsy?	0.26	0.634
၁	12	Did you know that there are subclinical seizures that you can't see with the naked eye?		0.632
Social	13	Have you ever helped a person with epilepsy?	0.598	0.569
Sc	14	Has a doctor or health worker previously given you medical advice and information to educate about epilepsy in public places such as markets, as part of awareness campaigns about epilepsy?	0.003	0.68
	15	Do you think that epilepsy patients can easily and effectively coexist and socialize?	0.416	0.621
		The stability of the general questionnaire		0.649

Through the results shown in table 1, it is clear that the stability of all the study is high, as the values of the stability coefficient of the study axes ranged between 0.565 and 0.659 and the total stability coefficient reached 0.649, all of which are weak but acceptable stability values in the exploratory stage of the research due to the small sample. To verify the consistency of the study axes, the Pearson coefficient of correlation between the tool axes and the total tool was used. The results were as shown in the table 2.

Table 2 Correlation coefficient of the axes

		Paragraph	correlation coefficient
	1	Do you have prior knowledge of the difference between seizures and their potential triggers and epilepsy?	0.818**
	2	Do you have prior knowledge of febrile seizures?	0.749**
>	3	What is the medical definition of febrile seizures?	0.278
emor	4	Does anyone in your family or relatives have febrile seizures or epilepsy"	0.282
Cognitive memory	5	If yes (to the previous question), has the attending physician or the person responsible for the case previously explained the nature of the disease clearly, including the causes, treatment and first aid?	0.368*
Cogn	6	Do you think that epilepsy is due to possession by a jinni or envy?	0.352
	7	What is the analysis or medical examination to diagnose epilepsy?	0.403*
	8	Did you know that people with epilepsy partially lose memory at the time the condition occurs but not in all types of seizure (Convulsion)?	0.576**
	9	Do you think that epilepsy is a disgrace to the individual in society?	0.296
	10	Is it possible for you to be related to someone with epilepsy?	0.365
ure	11	Do you think that family medical history and kinship (genetic factor) is important and has an impact on the treatment plan and evaluation of epilepsy?	0.470*
l cult	12	Did you know that there are subclinical seizures that you can't see with the naked eye?	0.524**
Social culture	13	Have you ever helped a person with epilepsy?	0.740**
	14	Has a doctor or health worker previously given you medical advice and information to educate about epilepsy in public places such as markets, as part of awareness campaigns about epilepsy?	0.426*
	15	Do you think that epilepsy patients can easily and effectively coexist and socialize?	0.549**

Through the results shown in table 2, it is clear that the correlation of all axes of the study is high, as the values of the correlation coefficient of the axes of the study ranged between 0.278 and 0.818, except for the third and fourth questions of the cognitive memory axis and the sixth question was weak and insignificant, as well as the ninth and tenth questions of the axis of social culture was weak, so we will need to do a factorial validity test to examine the degree of saturation of these paragraphs and to know the extent of their importance in the study tool.

Saturate each paragraph with the axis Axle Para No. **Correlation coefficient** 1 0.854 0.818** 2 0.794 0.749** 3 -0.707 0.278 4 0.685 0.282 Cognitive memory 5 0.792 0.368* 6 0.527 0.352 7 0.403* 0.643 8 0.691 0.576** 9 0.495 0.296 10 0.673 0.365 0.74 0.470* 0.524** Social culture 12 0.819 13 0.704 0.740** 14 0.803 0.426* 15 0.549** 0.53

Table 3 Correlation coefficient of the axes

From the results of the above table 3, it appears that the saturation degrees for each paragraph are good, as the degree of saturation is more than 0.30 is considered high, and the paragraph is important in the tool. It shows the validity of the study tool for field application.

Expected Limitation and Ethical Consideration

Usually, people don't have enough courage or desire to share or participate in any survey or questionnaire due to busy life or work especially medical staff and those who work in medical field in general. Researcher wrote a brief and catchy survey message before starting the questionnaire. There was also a declaration message stating that all data and information were obtained will be used for medical research only.

Data Analysis

After collecting the data from the selected sample, the data analyzed by the famous statistical analysis program SPSS. The SPSS program is used to perform the statistical analysis of the questionnaire, as it sorts and analyzes the information and then deciphers the statistical equations to analyze the questionnaire and show the results also the types of links between the independent variables and the dependent variables in the questionnaire. Beside it is a summary of the questionnaire analysis process on the program, in which all the results of the questionnaire are displayed from the mean, the arithmetic mean, the standard deviation, the mode, the range, the frequency, and other goals of the statistical analysis of the questionnaire, and these results are shown on the program with charts or hierarchical charts and writing reports about the process of analyzing the questionnaire. Over the course of two consecutive months of distributing the questionnaire, the researcher was able to obtain the full sample, 368 participants of both gender and different ages. When sorting and examining the samples, it was found that 46 samples, equivalent to 12.5%, did not meet the conditions for answering a questionnaire in the correct way, and therefore 12.5% were excluded from the research to avoid error in the results in the analysis. The number of participants in the questionnaire was proven to be 322 participants.

RESULTS

The frequencies of 322 participants were extracted and the percentages of the individuals participating in the study sample were calculated in the light of several variables (Age-Gender-University specialization-Academic degree-Academic level).

Table 4 Distribution of	f research	individual	ls according	to the ger	ider variable

Gender	Frequency	Percent (%)
Female	168	52.6
Male	152	47.4
Total	322	100

It is clear from the previous table 4 that the percentage of individuals participating in the study sample was 47.2% males, while the percentage of females was 52.2% of the individuals participating in the study sample. As the largest number in the health sectors is female nursing, and the number of the nursing sector in Saudi Arabia is twice that of doctors due to the urgent need to support the health sector with nursing services in all centres. 2021 ministry of health report stated that the male doctors is 64% compare to 36% female doctors, meanwhile, the male nurse is 23% compare to female nurse 77%.

Table 5 Distribution of research individuals according to the age variable

Age	Frequency	Percent (%)
Less 20 years	54	16.8
20-30	152	47.2
30-40	71	22
More than 40	45	14
Total	322	100

Table 6 Distribution of research personnel according to the scientific degree variable

Education level	Frequency	Percent (%)
High school	40	12.4
Diploma	64	19.9
Bachelor	152	47.2
Master	32	9.9
Ph.D.	34	10.6
Total	322	100

The table 5 shows the percentage of 16.8% of the individuals participating in the study sample is less than 20 years old, they are those who have obtained a high school diploma or two years of health diploma only, and this group of young people is often employed in supportive sectors, not the main ones that have direct contact with epilepsy patients. Concomitantly, this is confirmed by table 6, as it shows that 32.3% are holders of high school certificates and diplomas, which means that the participants are less than 20 years old in this category. While the majority of the participants (47.2%) of the individuals is between 20 years to 30 years with a number of 152 participants, these numbers corresponded with table 6, which showed that the holders of a bachelor's degree, aged between 19 years to 23 years, reached 152 participants. The percentage of the individuals participating in the study sample, their age ranged from 30 years to 40 years is 22%, and 14% of them were over 40 years old.

Also, in table 6, percentage of the individuals participating in the study sample hold a master's degree is 9.9%, and 10.6% of the individuals participating in the study sample hold a PhD.

Table 7 Distribution by type of facility

Туре	Frequency	Percent (%)
Private	112	34.8
Government	210	65.2
Total	322	100

Table 7 shows that the percentage of individuals participating in the study sample from the private sector was 34.8%, while the percentage of the government sector was 65.2% of the individuals participating in the study sample.

They attribute the increase in the number of participants in the study from government health facilities to the increase in the number of government hospitals in the city compared to private hospitals, as the Saudi Ministry of Health stated in its report for the year 2021 that the city of Tabuk has 12 government hospitals with a health workforce of 1,920 people compared to 3 private hospitals with a health workforce of 733 people and the governmental hospitals are operating at full capacity.

Table 8 Right and misconception thoughts categories analysis

	Items	Awamaga	Standard	Right	thoughts	Misconception
	items	Average	Deviation	Frequency	Percent (%)	Percent (%)
	Experience in the field of epilepsy.	2.0528	0.824	118	36.6	63.4
	Participation in courses or conferences related to epilepsy.	1.873	0.927	120	37.3	62.7
	The prior knowledge of the difference between seizures and their potential triggers and epilepsy.	1.717	0.451	231	71.7	28.3
	A prior knowledge of febrile seizures.	1.593	0.492	191	59.3	40.7
	Your family or relatives have febrile seizures or epilepsy.	2.544	0.789	235	73	27
Cognitive	If yes (to the previous question), the attending physician or the person responsible for the case previously explained the nature of the disease clearly, including the causes, treatment and first aid.	1.37	1.129	81	34.3	65.7
	The epilepsy is due to possession by a jinni or envy.	2.761	0.427	245	76.1	23.9
	The people with epilepsy partially lose memory at the time the condition occurs but not in all types of seizures (convulsions).	1.758	0.429	244	75.8	24.2

	The epilepsy is a disgrace to the individual in society.	2.866	0.341	278	86.3	13.7
	It possible for you to be relate to someone with epilepsy.	1.811	0.788	75	23.3	76.7
	The family medical history and kinship (genetic factor) is important and has an impact on the treatment plan and evaluation of epilepsy.	2.483	0.877	238	73.9	26.1
Social	There are subclinical seizures that you can't see with the naked eye.	2.317	0.95	212	65.8	34.2
	Help a person with epilepsy.	1.683	0.95	110	34.2	65.8
	The doctor or health worker previously gave you medical advice and information to educate about epilepsy in public places such as markets, as part of awareness campaigns about epilepsy.	1.739	0.967	119	37	63
	The epilepsy patients can easily and effectively coexist and socialize.	2.283	0.739	146	45.3	54.7
	The medical definition of febrile seizures.	2.376	0.827	193	59.9	40.1
Knowledge	The analysis or medical examination to diagnose epilepsy.	2.193	0.637	102	31.7	68.3

It is clear from table 8 that 65.7% of those who have relatives suffer from epilepsy. The attending physician or the person in charge of the case did not clearly explain the nature of the disease to them, including the causes, treatment, and first aid. It was found that 63.4% of health care workers had no experience in the field of epilepsy, and 62.7% of them did not participate in courses or conferences related to epilepsy. Additionally, 40.7% of them had no prior experience with febrile seizures. The study highlights that the most prevalent misconception in the second axis is the idea of difficulty in relating to a person with epilepsy, as 76.7% of the participants believe that they cannot relate to a person with epilepsy

Furthermore, 65.8% of the participants had no experience in treating people with epilepsy. 63% of them didn't provide advice or medical information about epilepsy during awareness campaigns in public places like markets. Additionally, 54.7% of the participants acknowledged the difficulties epilepsy patients face in integrating into society normally and effectively.

As for the third axis, 68.3% of the participants are ignorant of the correct medical analysis or examination to diagnose epilepsy. There are 40.1% of them are ignorant of the medical definition of febrile seizures.

CONCLUSION

Many misconceptions in our lives lead to severe suffering in the lives of other people, especially those with chronic diseases. Epilepsy patients face challenges in living a healthy life on two fronts: first, by receiving proper treatment,

and second, by combating misconceptions about the disease itself. For example, some may mistakenly label epilepsy as a mental illness, but the fact is, Epilepsy is a neurological disorder characterized by recurrent seizures, which are caused by abnormal electrical activity in the brain. It is not a mental illness. Furthermore, seizures can vary widely in their presentation and severity; there are different types of seizures, such as generalized seizures (affecting the entire brain) and focal seizures (affecting specific areas of the brain). Epilepsy does not prevent individuals from forming and maintaining relationships with others. People with epilepsy have the ability to connect emotionally, share experiences, and develop meaningful connections just like anyone else.

This research has shown that a high percentage of the Saudi society in the city of Tabuk holds misconceptions about epilepsy. These misconceptions affect how patients are perceived and treated, and one significant reason for the lack of treatment effectiveness in some cases is the psychological factor resulting from the environment's misunderstanding of the disease. This preconceived notion hinders positive progress and improvement despite receiving proper medical care and treatment. The study focused on the close-knit class of individuals who interact with epilepsy patients on a daily basis. The results indicated that many health and medical staff also have misconceptions about epilepsy. These misconceptions can arise due to a lack of information about the disease or poor handling of patients, leading to a lack of awareness.

DECLARATIONS

Conflict of Interest

The authors declared no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

REFERENCES

- [1] Karterud, Hilde Nordahl, Mette Bech Risør, and Ole Rikard Haavet. "The impact of conveying the diagnosis when using a biopsychosocial approach: a qualitative study among adolescents and young adults with NES (non-epileptic seizures)." *Seizure*, Vol. 24, 2015, pp. 107-13.
- [2] AL-Zwaini, Isam Jaber, and Ban Adbul-Hameed Majeed Albadri. "Introductory Chapter: Epilepsy-The Long Journey of the Sacred Disease." *Epilepsy-Advances in Diagnosis and Therapy. IntechOpen*, 2019.
- [3] World Health Organization. "Epilepsy." WHO, 2022.
- [4] Johnson, Emily L. "Seizures and epilepsy." Medical Clinics, Vol. 103, No. 2, 2019, pp. 309-24.
- [5] Brigo, Francesco, et al. "A brief history of typical absence seizures-Petit mal revisited." *Epilepsy & Behavior*, Vol. 80, 2018, pp. 346-53.
- [6] Sajatovic, Martha, et al. "Targeted self-management of epilepsy and mental illness for individuals with epilepsy and psychiatric comorbidity." *Epilepsy & Behavior*, Vol. 64, 2016, pp. 152-9.
- [7] Kuroda, Naoto. "Decision making on telemedicine for patients with epilepsy during the coronavirus disease 2019 (COVID-19) crisis." *Frontiers in Neurology*, Vol. 11, 2020, p. 722.
- [8] Lang, Johannes D., David C. Taylor, and Burkhard S. Kasper. "Stress, seizures, and epilepsy: patient narratives." *Epilepsy & Behavior*, Vol. 80, 2018, pp. 163-72.
- [9] Wahab, Abdul. "Difficulties in treatment and management of epilepsy and challenges in new drug development." *Pharmaceuticals*, Vol. 3, No. 7, 2010, pp. 2090-110.
- [10] Atta Abu R. "Misconceptions and traditional medicine are two main reasons for the deterioration of epilepsy in Saudi Arabia." *Saudi Research and Media Group*, 2003.
- [11] Beghi, Ettore. "The epidemiology of epilepsy." Neuroepidemiology, Vol. 54, No. 2, 2020, pp. 185-91.
- [12] Fisher, Robert S. "Redefining epilepsy." Current opinion in neurology, Vol. 28, No. 2, 2015, pp. 130-5.
- [13] Cox, Joanna H., et al. "Social stigma and self-perception in adolescents with tourette syndrome." *Adolescent health, medicine and therapeutics*, 2019, pp. 75-82.
- [14] Brodie, Martin J., et al. "Epilepsy, antiepileptic drugs, and aggression: an evidence-based review." *Pharmacological reviews*, Vol. 68, No. 3, 2016, 563-602.
- [15] Robson, Catherine, and Olaug S. Lian. "Blaming, shaming, humiliation": stigmatising medical interactions among people with non-epileptic seizures." *Wellcome Open Research*, Vol. 2, 2017.

- [16] Kartal, Ayşe. "Knowledge of, perceptions of, attitudes and practices regarding epilepsy among medical students in Turkey." *Epilepsy & Behavior*, Vol. 58, 2016, pp. 115-8.
- [17] Paul, Yash. "Various epileptic seizure detection techniques using biomedical signals: a review." *Brain informatics*, Vol. 5, No. 2, 2018, pp. 1-19.
- [18] Kodankandath, Thomas V., Danny Theodore, and Debopam Samanta. "Generalized tonic-clonic seizure." 2020.
- [19] Salas-Puig, Xavier, et al. "Accidental injuries in patients with generalized tonic-clonic seizures. A multicenter, observational, cross-sectional study (QUIN-GTC study)." *Epilepsy & Behavior*, Vol. 92, 2019, pp. 135-9.
- [20] Pushpakumara, Jagath, et al. "Bilateral posterior fracture-dislocation of the shoulders following epileptic seizures: a case report and review of the literature." *BMC research notes*, Vol. 8, 2015, pp. 1-5.
- [21] Rossi, Kyle C., et al. "Recognizing and refuting the myth of tongue swallowing during a seizure." *Seizure*, Vol. 83, 2020, pp. 32-7.
- [22] AlHarbi, Fahad A., et al. "Public awareness and attitudes toward epilepsy in Saudi Arabia: a systematic review and meta-analysis." *Epilepsy & Behavior*, Vol. 124, 2021, p. 108314.
- [23] Adil, Eelam Aalia, and A. Meyers. "Tongue Anatomy." MedScape, 2017, p. 20.
- [24] Centers for Disease Control and Prevention. "Seizure First Aid." CDC, 2022.
- [25] Camfield, Peter, and Carol Camfield. "Febrile seizures and genetic epilepsy with febrile seizures plus (GEFS+)." *Epileptic Disorders*, Vol. 17, No. 2, 2015, pp. 124-33.
- [26] Weinstein, Jay, and Vijayan K. Pillai. "Demography: The science of population." *Rowman & Littlefield*, 2015.
- [27] Alshurem, Mohammed, et al. "Prevalence of medically resistant epilepsy in Saudi Arabia." *Neuroepidemiology*, Vol. 55, No. 3, 2021, pp. 232-8.
- [28] Sambuo, Damian. "Quantitative Methods for the Social Sciences: A Practical Introduction with Examples in SPSS and STATA." *Moshi Co-operative University*, 2021.
- [29] Ministry of Health. "Statistical Yearbook" Vision 2030-Kingdom of Saudi Arabia, 2021.