

Awareness and Attitude towards Epilepsy among Saudi Arabia

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ABSTRACT

Background: Epilepsy is a disorder of the brain characterized by an enduring predisposition to generate epileptic seizures and by the neurobiological, cognitive, psychological, and social consequences of this condition. The definition of epilepsy requires the occurrence of at least one epileptic seizure.

Aim of the Study: To assess and evaluate general population understanding, knowledge and attitude toward epilepsy and epileptic patients. **Methods:** It's a cross-sectional randomized study conducted in Kingdom of Saudi Arabia. An online questionnaire designed to survey public awareness and attitudes toward epilepsy that posted online & distributed to the public. Estimated about 1000 cases and the statistical package SPSS version 21 was used for data analysis. **Result:** 20.2% of the participants have a family member with Epilepsy. When asked if they can define Epilepsy; (39.6%) from the Southern region believe that they can, followed by the rest of the regions with similar percentages. 40.3% of female participants knew the causes of epilepsy and also 40.3% of males. The western region was leading with 29% knowing the causes of Epilepsy. (30.4%) of females knew how to handle a seizing patient while only (22.4%) of males knew how. The Western region had the highest positive response (31.5%). A high percentage of Males (81.2%) did not think that there're different levels of Epilepsy while only (4.3%) of females agree on that. Most the responses received from males (43.6%), females (43.6%) and by regional division; (40%) West, (49%) South, (41.8%) North, (45.5%) Centre, (47.1%) East, agreed that epilepsy isn't a genetic disorder. (36.5%) of females did not think that epilepsy affects the brain function; (29.1%) of males, (34.9%) West, (37.8%) Central, (41.4%) East, (34.5%) North and (22.9%) South had the same opinion. **Conclusion:** we noticed that the awareness and attitudes of the Saudi public toward epilepsy is less than expected especially from college students. We plan to target all our community from the different level of education and regions for more education in order to lower this stigma of epilepsy.

Keyword: Epilepsy, awareness, attitude, causes.

INTRODUCTION

Epilepsy is the 4th most common neurological disorder and affects individuals of all ages. Epilepsy is a disorder of the brain characterized by an enduring predisposition to generate epileptic seizures and by the neurobiological, cognitive, psychological, and social consequences of this condition. The definition of epilepsy requires the occurrence of at least one epileptic seizure⁽¹⁾.

Epilepsy can influence one's security, work, connections, driving thus significantly more, Public perception and treatment of individuals with epilepsy are more concerning issues than actual seizures. Epilepsy represents 0.5% of the global burden of disease, with more than 50 million people affected worldwide; 80% of them are in developing regions. People with epilepsy and their families can experience the ill effects of disgrace and separation in many parts of the world. Despite the fact that this issue is common in Saudi Arabia, with a prevalence

of 6.54 per 1000, no study of epilepsy awareness, knowledge, and attitudes had been reported from Saudi Arabia⁽²⁾.

A cross-sectional study was done in the Aseer region, Saudi Arabia showed that almost all had heard about epilepsy (96.1%), and the majority knew someone with epilepsy (60.7%). In spite of that, knowledge about the etiology and nature of epilepsy was lacking, as 40% of participants thought it was a blood disorder, 21.2% believed it was contagious, and nearly one-third viewed it as due to a mental disorder and emotional stress⁽²⁾.

Another study was conducted to examine public awareness and attitudes toward epilepsy in Riyadh, the capital city of Saudi Arabia, revealed that most participants (77.4%) had prior knowledge of epilepsy, and 52% believed that epilepsy is an organic disease. 15% also linked epilepsy to evil spirit possession, and up to 37% preferred spiritual rituals and religious healing to medical treatments⁽³⁾.

In Saudi Arabia, religious and cultural beliefs about the causes and treatment of epilepsy exist alongside medical beliefs. The holding of religious beliefs, the practicing of religious rituals, and the presence of family support were found to be of great importance in coping with epilepsy, and their role needs to be fully appreciated in the medical management of the condition⁽⁴⁾.

To our knowledge, there have been limited studies and reports on epilepsy awareness in Saudi Arabia, this study aim to fill this gap.

Objectives of the Study:

To asses and evaluate the general population understanding, knowledge and attitude toward epilepsy and epileptic patients.

Specific objectives: To;

1. Study the general population understanding of epilepsy and its manifestations.
2. Study general population awareness of epilepsy risk factors.
3. Recognize the parent's knowledge and awareness toward their epileptic child.
4. Asses awareness and understanding of the school workers toward the epileptic students.

Secondary Objectives: To;

1. Asses general population knowledge of how to deal with epileptic patient.
2. Asses general population understanding of seizures and how to deal with it.

MATERIALS AND METHODS

This study approved by Royal Commission Medical Center Yanbu, Yanbu Industrial City, Al Madinah, Saudi Arabia. It's a cross-sectional randomized study. An online questionnaire designed to survey public awareness and attitudes toward epilepsy that well be posted online & distributed to the public. The study was conducted in Kingdome of Saudi Arabia, including all thirteen regions in 2017. All Saudi population aged above 14 years are included in this study. Those who are under 14 years and people working in the medical field will be excluded. Randomization of study population based on different websites and other social media. Estimated cases were about 1000. The statistical package SPSS version 21 was used for the data analysis. Descriptive statistics will be calculated for all the variables in the study. A private computer with password will be used to save the data and the access to these data will be only by the research

team. The data entrance was done by all research team members.

RESULTS

Most of our participants 83.4% were female (Figure 1). From the 5 Regions of Saudi Arabia; 41.2% from Western region followed by Central region (36.6%), Southern region (9.6%), Eastern (7%) and northern (5.5%) (Figure 2). 20.2% of the participants have a family member with Epilepsy (Figure 3). When asked if they can define Epilepsy; (39.6%) from the Southern region believed that they can, followed by the rest of the regions with similar percentages. (Figure 4). 40.3% of female participants knew the causes of epilepsy and 40.3% of males knew. The western region was leading with 29% knowing the causes of Epilepsy (Figure 5). 30.4% of females knew how to handle a seizing patient while only 22.4% of males knew how (Figure 6). The Western region had the highest positive response (31.5%). A high percentage of males (81.2%) did not think that there're different levels of epilepsy while only (4.3%) of females agreed on that (Figure 7).

Most of the responses received were equal from males (43.6%) and females (43.6%). By regional division; 40% West, 49% South, 41.8% North, 45.5% Centre and 47.1% East, agreed that Epilepsy isn't a genetic disorder (Figure 8). (36.5%) of females did not think that epilepsy affect the brain function while 29.1% were males. (34.9%) West, (37.8%) Central, (41.4%) East, (34.5%) North and (22.9%) South had the same opinion.

58.8% of males and 59.7% of females agreed that Epilepsy is a chronic disease. 20.6% of males, 20.9% of females, 21% of western region, 26% of southern region, 30.9% of northern region, 8.4% of central region and 18.6% of eastern region sought that epilepsy can occur in women more than men.

43.6% of males and 38.4% of females (Figure 9), where 41.5% were of western region, 40.6% of southern region, 36.4% of northern region, 35.1% of central region and 48.6% of eastern region were not interested in educating themselves about epilepsy (Figure 10).

67.9% of males and 60.4% of females (Figure 11), where 64.4% of western region, 61.5% of southern region, 56.4% of northern region, 60.8% of central region and 61.6% of eastern region were not interested in attending lectures and read articles about epilepsy.

81.2% of males and 85.4% of females, where 81.2% of western region, 87.5% of southern region, 87.3% of northern region, 82.7% of central region and 75.7% of eastern region never attended lecture on how to provide first aid for epileptic patient (Figure 12).

29.1% of males and 28.5% of females (Figure 13), where 26.6% of western region, 27.1% of

southern region, 27.1% of northern region, 23.6% of central region and 32.9% of eastern region sought that medical education can cover enough information about epilepsy. (Figure 14).

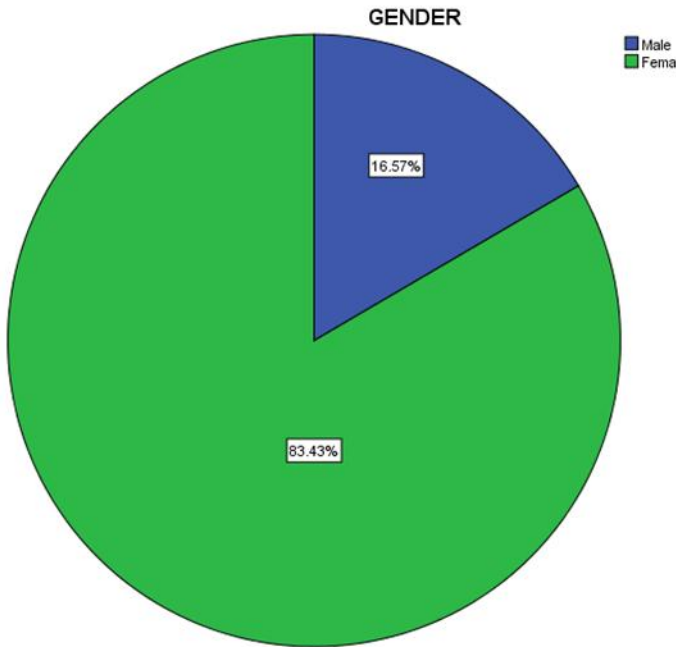


Figure (1): Gender distribution

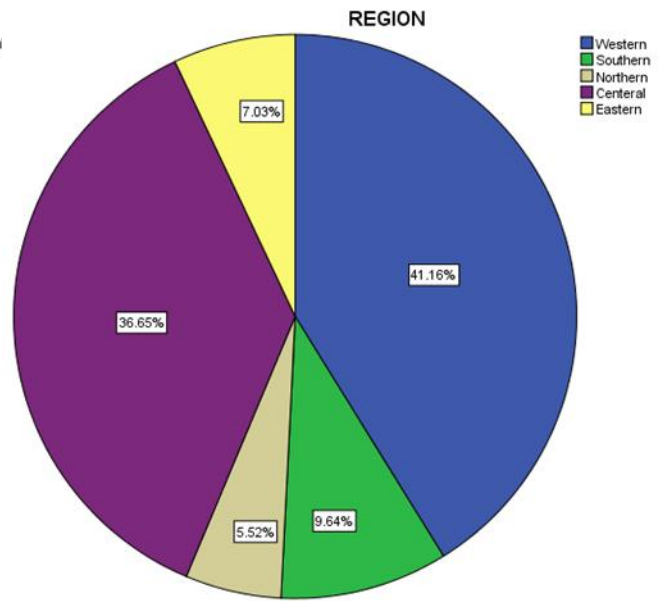


Figure (2): Regional distribution of participants

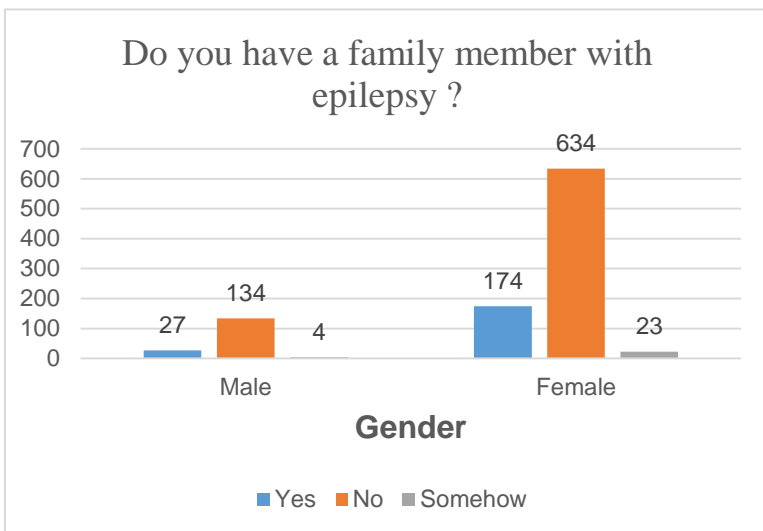


Figure (3): Families having epileptic member

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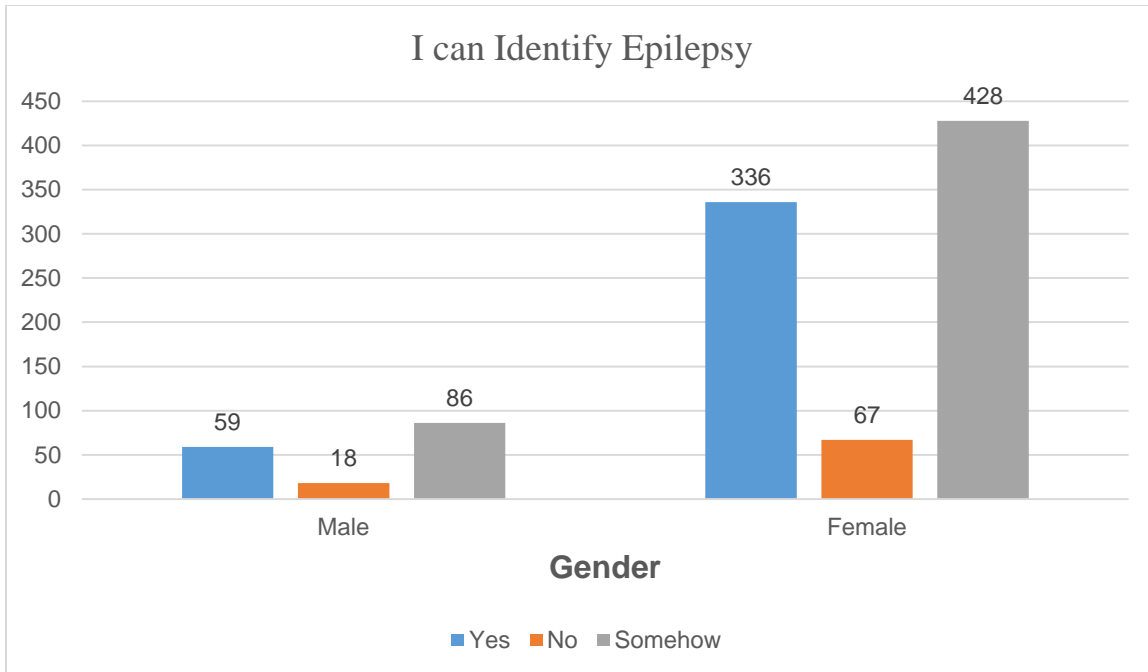


Figure (4): Identification of epilepsy

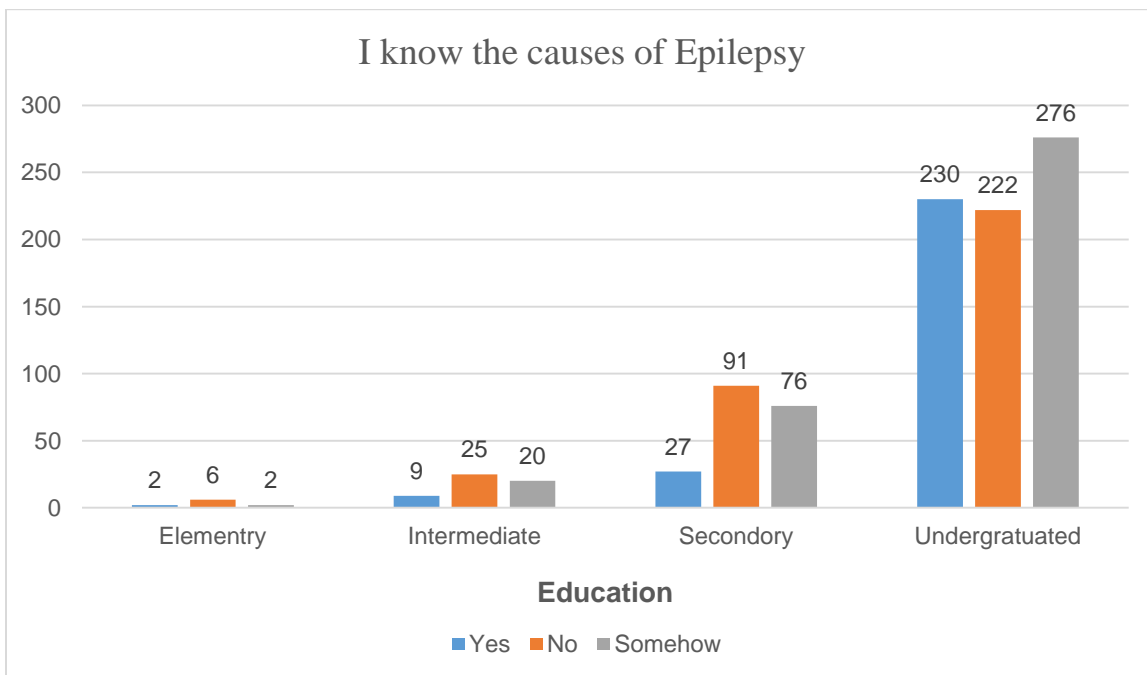


Figure (5): Awareness of causes of epilepsy

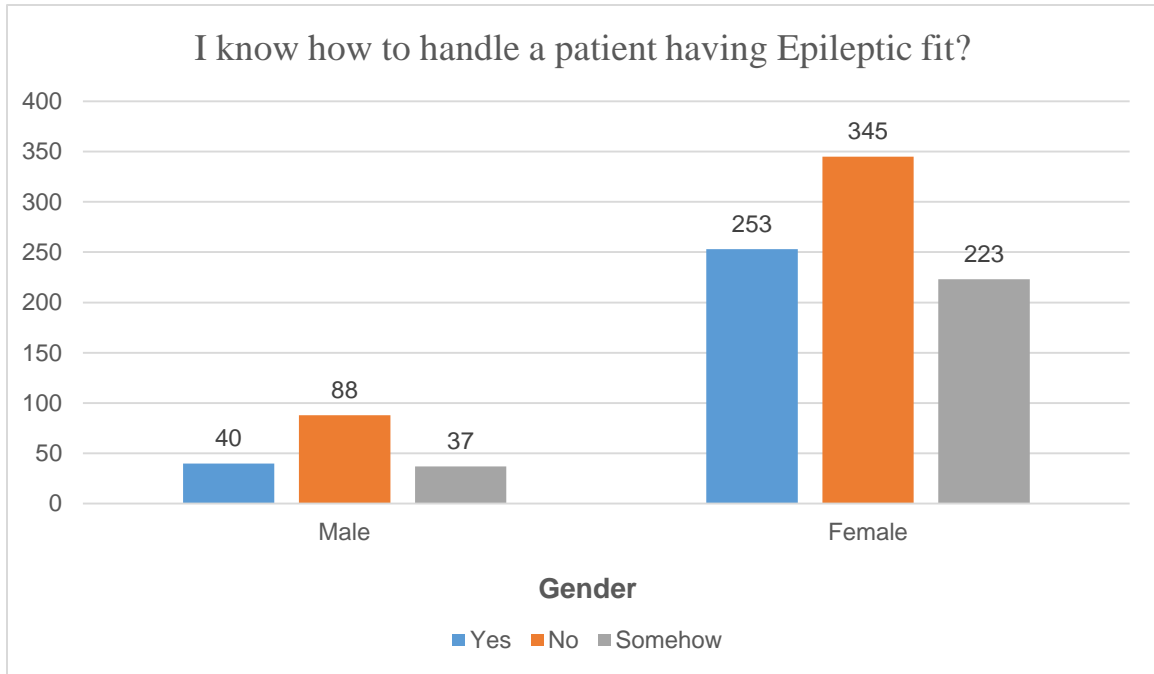


Figure (6): Handling of epileptic patient having epileptic fit

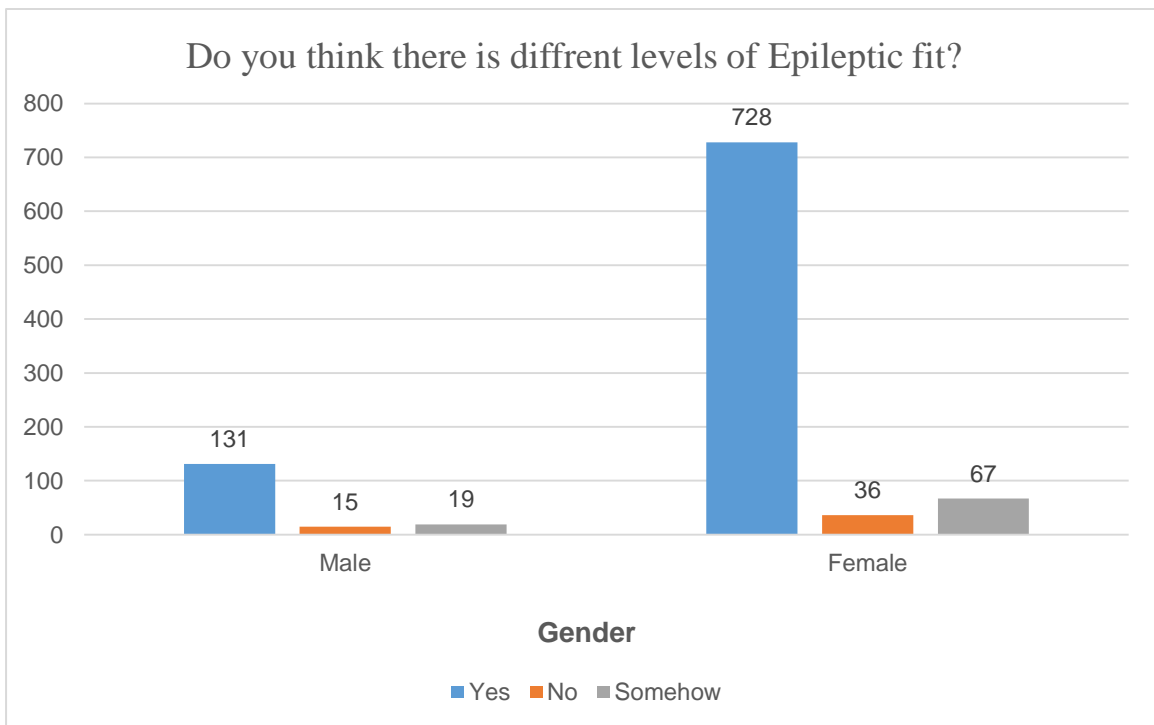


Figure (7): Is there different levels of epileptic fit?

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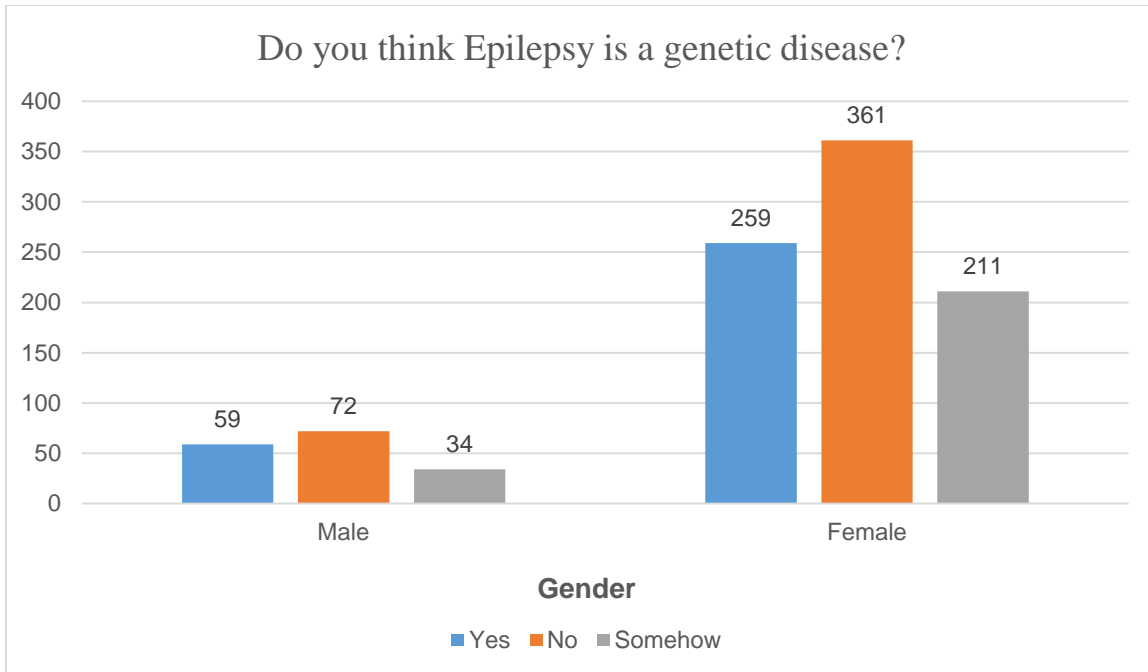


Figure (8): Is epilepsy a genetic disease?

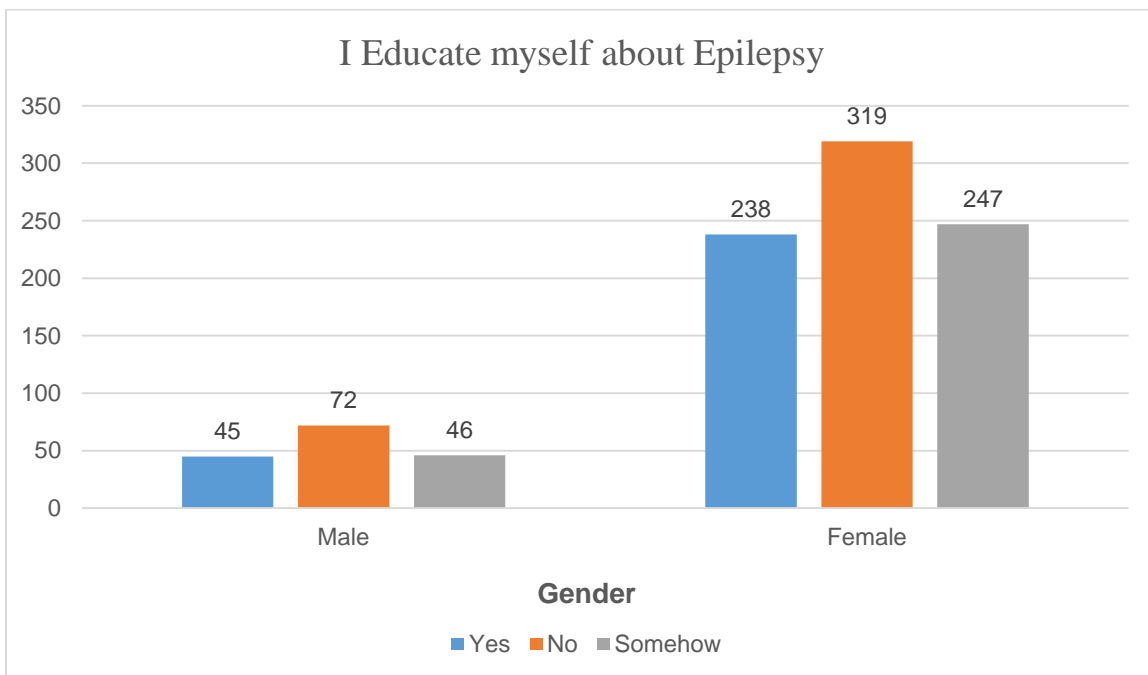


Figure (9): Gender distribution about educating themselves

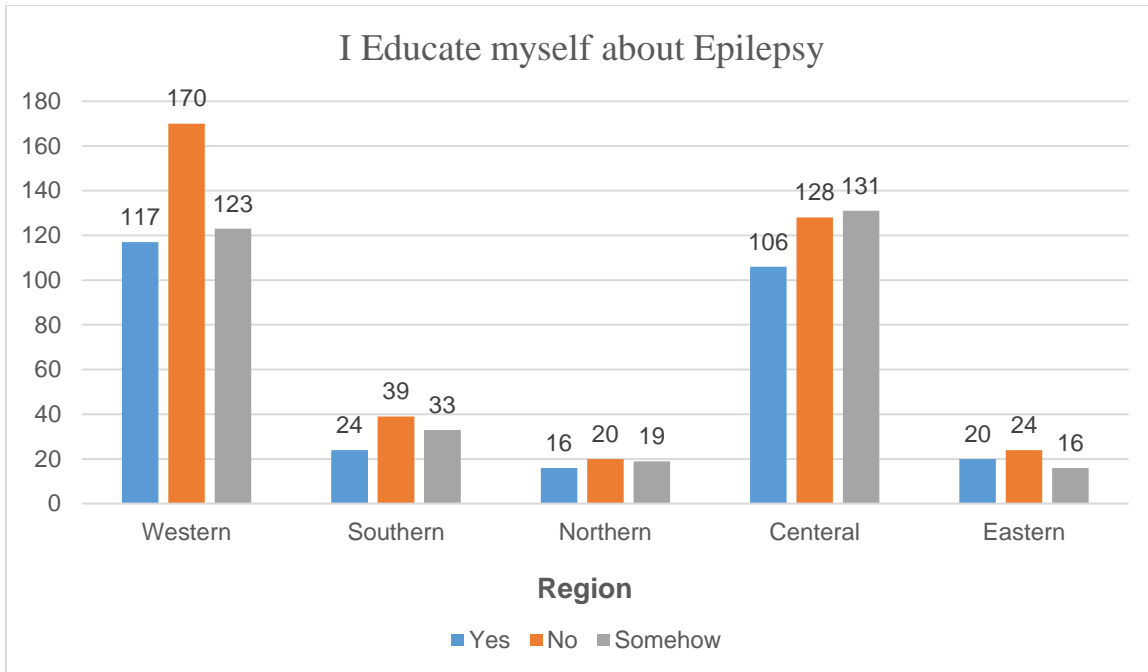


Figure (10): Regional distribution of educating themselves

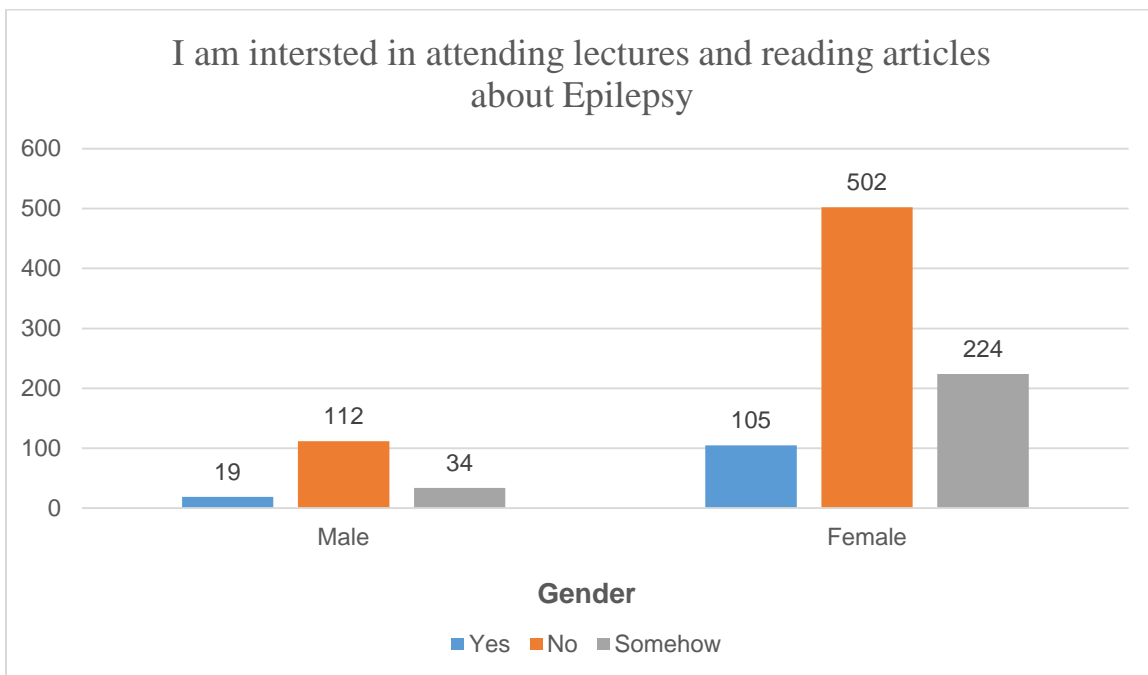


Figure (11): Gender distribution of interest to attend lectures and read about epilepsy

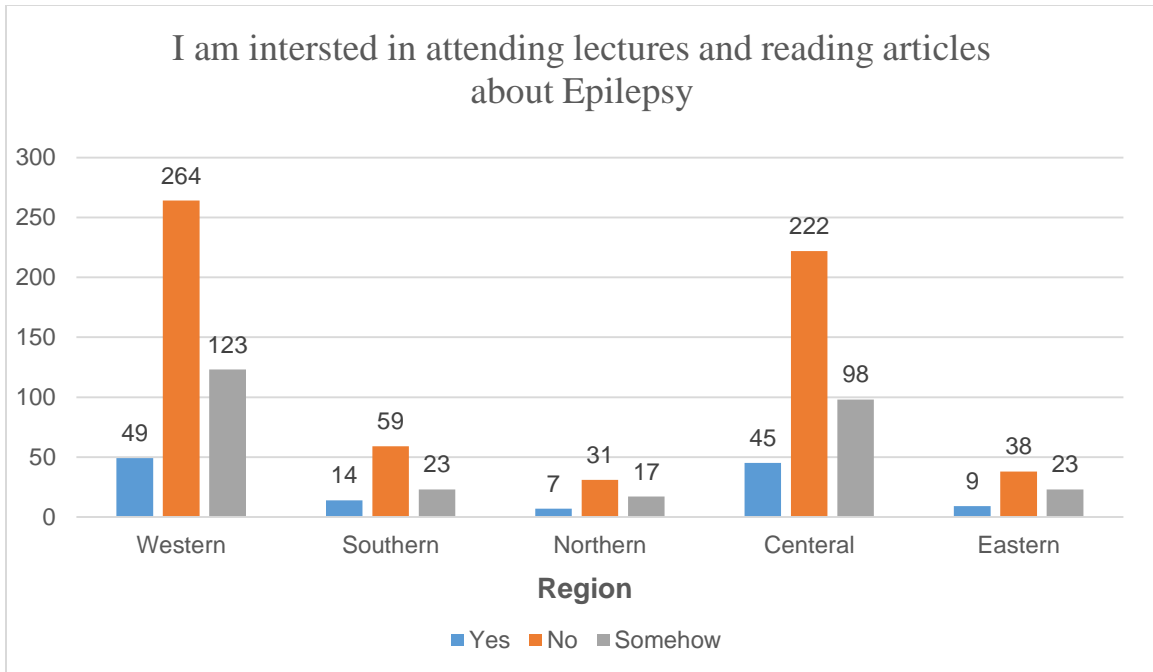


Figure (12): Regional distribution of interest to attend lectures and read about epilepsy

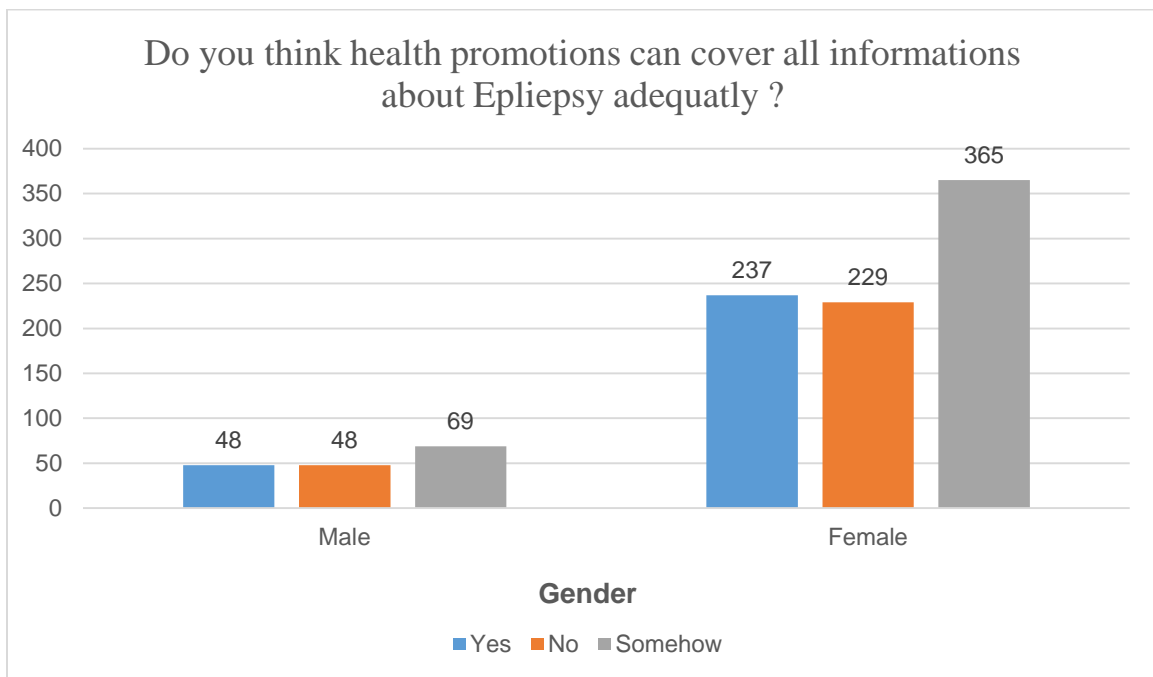


Figure (13): Gender distribution that medical education can cover enough information about epilepsy

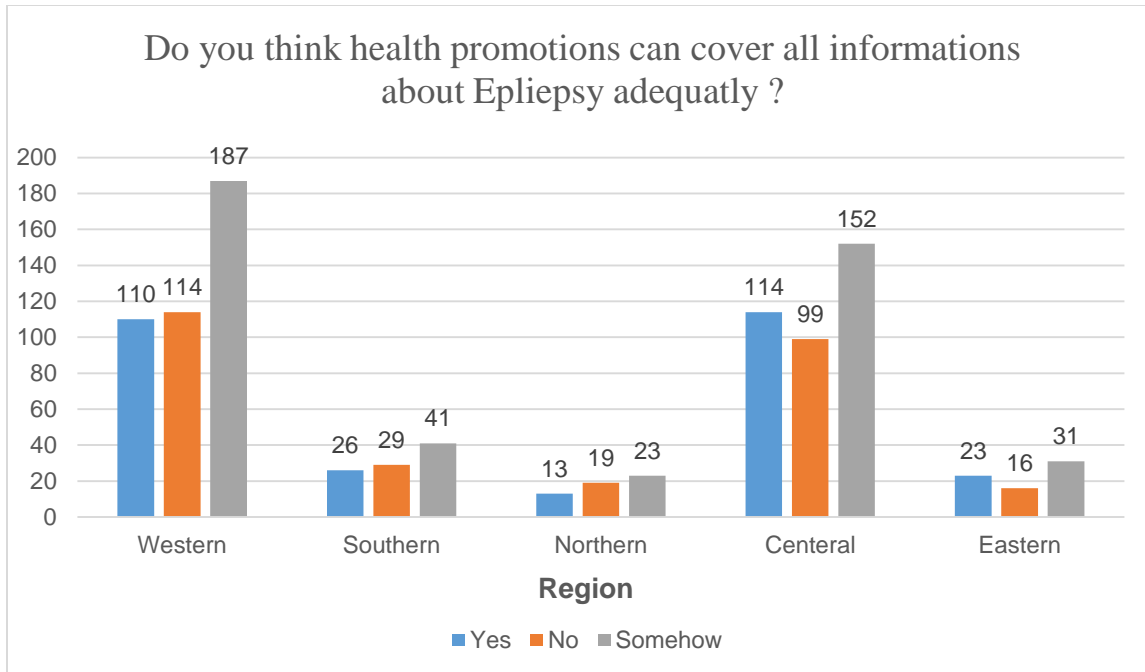


Figure (14): Regional distribution that medical education can cover enough information about epilepsy

DISCUSSION

Epilepsy in our community

our study suggests that public awareness and attitudes towards epilepsy are less improving. The correlation between the degree of knowledge and negative attitudes toward epilepsy has been well documented⁽³⁾. About half of participants somehow can define epilepsy. We found females are more educated than males in defining epilepsy. In knowing reasons of epilepsy, was much less even undergraduate participants. Most participants didn't educate themselves about epilepsy both males and females, and they don't interest to attend lectures or read articles about epilepsy. We think that this is a very problematic issue because when those people even don't think to improve themselves about epilepsy, so our community toward epilepsy will not improve. We will continue to teach our community about this disease by visual, audio and written media to improve the life of epileptic patients. To prevent such misconceptions, we need to provide the society with enough information about epilepsy, so we asked the participants about medical education if it can give enough information about epilepsy.

The survey showed that 43.3% of undergraduate participants answered that medical education can give enough information about epilepsy, 29% of them sought it can and 27.7% of them said it can't. The correlation between the

degrees of thinking that yes medical education can cover epilepsy and loss of interest in attending lectures and reading an article about epilepsy has been well documented.

Most of the participants 84.7% didn't attend first aid for epileptic patient both male and females. Knowing that epilepsy has different levels and not just one type is well known to most of our participants. This is a positive point that there is a little improving toward epilepsy.

From different regions of Saudi Arabia, 43.5% of participants did not think that epilepsy is a genetic disease, and 31.9% of them sought that epilepsy is a genetic disease. We hope that the belief of epilepsy as a genetic disease would disappear in the near future. Most common epilepsies, however, are probably complex traits with environmental effects acting on inherited susceptibility, mediated by common variation in particular genes⁽⁵⁾.

35.4% of undergraduate participants (college students) sought that epilepsy do not affect the brain. This is incorrect believe. Also, we asked them about if the epilepsy occurs more in women than men, 23.5% of them did not think that and that is correct. This means that we need more education in order to minimize misunderstanding of epilepsy.

In our study participants were 996 most of them were females (831). However, it covered most of the

regions of Saudi Arabia, and most of them from western region followed by the central region, then southern region, then eastern and lastly was the northern. Most of them were undergraduate (college students). Therefore, we can generalize our findings. Finally, our questionnaire was clear and detailed.

CONCLUSION

In conclusion, we observed that the awareness and attitudes of the Saudi public toward epilepsy is less than expected especially from college students. We plan to target all our community from the different level of education and regions for more education in order to lower this stigma of epilepsy. Several things could be done for example, Public educational and first aid epilepsy workshops are needed to improve the life of epileptic patients and how to deal with them to make our community much educated and advanced.

REFERENCES

- 1.Fisher RS, Van Emde Boas W, Blume W, Elger C, Genton P, Lee P *et al.* (2005):** Epileptic seizures and epilepsy: Definitions proposed by the International League Against Epilepsy (ILAE) and the International Bureau for Epilepsy (IBE). *Epilepsia*, 46(4):470–2.
- 2.Alhazzani A, Alqahtani A, Asiri K, Alamri H, Aboelyazeed A (2015):** Public Awareness, Knowledge And Attitude Toward Epilepsy In Aseer Region, Saudi Arabia Community Based Cross Sectional Study. *Neurol.*, Available from: http://www.neurology.org/content/84/14_Supplement/P5.094.abstract
- 3.Muthaffar O, Mohammed J (2014):** Public awareness,attitudes toward epilepsy in Saudi Arabia is improving. *Neurosciences*, 19: 124–6.
- 4.Alkhamees HA, Selai CE, Shorvon SD (2015):** The beliefs among patients with epilepsy in Saudi Arabia about the causes and treatment of epilepsy and other aspects. *Epilepsy Behav.*, 53:135–9.
- 5.Duncan J, Sander J, Sisodiya S ,Walker M (2006):** Adult epilepsy. *Lancet*. [https://doi.org/10.1016/S0140-6736\(06\)68477-8](https://doi.org/10.1016/S0140-6736(06)68477-8).