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Knowledge About Status Epilepticus and Epilepsy; Comparative Study

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Abstract

Background: Status epilepticus (SE) is a single epileptic seizure lasting more than five minutes or two or more seizures without returning to normal between them. It's a life-threatening medical emergency requiring immediate management. Epilepsy is a chronic disease or condition, resulting in unprovoked recurrent seizures that affect a variety of mental and physical functions [1]. Focus on first aid measure needs greater emphasis to remove fright and fear amongst the public. Public awareness and education toward epilepsy and common complications related to epilepsy are equally important to improve the quality of life of epileptic patients [2]. To evaluate the epilepsy and status epilepticus knowledge and attitude regarding epilepsy among health professionals and public in Saudi Arabia.

Method: A questionnaire that evaluated knowledge and attitude regarding epilepsy and its emergency complications like status epilepticus among health professionals and the public.

Statistical analysis: Statistical analysis was performed using the statistical software SPSS.

Eligibility criteria: Age>15 years, Both sex, Mentally competent

Results: Our prediction is lack of knowledge and attitude among non-health professional regarding epilepsy and status epilepticus. However, the health professional group may show better knowledge, but equivalent attitude compared with non-health professional group about status epilepticus.

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Conclusion: Health professionals are considered better educated about epilepsy. Thus, it is important they also have enough knowledge about status epilepticus. The findings of the present survey indicate an imperative improvement in awareness and education for both entities. An improvement in epilepsy and status epilepticus awareness might contribute to an improvement in epilepsy care and status epilepticus prevention.

Keywords: ***Status epileptics; Epilepsy; Survey; Knowledge; Saudi Arabia; Attitude; Awareness***

1. Introduction

Epilepsy is one of the most common and most serious neurological conditions which affecting more than 50 million people worldwide.[3] Status epilepticus (SE) is a single epileptic seizure lasting more than five minutes or two or more seizures without returning to normal between them.

Patients with epilepsy may suffer from psychological disturbance such as depression, anxiety, obsessive convulsive disorder and psychosis. That is definitely affecting caregivers and family as reported in one study that relatives of people with epilepsy have an increased risk of anxiety [4].

Awareness, knowledge, and attitudes toward epilepsy and status epileptics are important qualities for patients and relatives of people with epilepsy to better understand this condition [5].

Studies have shown that people with less awareness and knowledge about epilepsy and status epileptics tend to have negative attitudes toward the disease which affect epilepsy treatment negatively as well as delay in seizure first aid [6]. Cultural, societies beliefs, superstition, and lack of knowledge about epilepsy have perpetuated such misconceptions in developing countries.

The present study evaluated the level of knowledge, awareness and attitudes of health care professionals, patients and family members of people living with epilepsy about the disease and complications like status epileptics.

2. Method

This cross-sectional survey was conducted using a self-administered questionnaire completed by health professionals, patients and adult family members of people with epilepsy at an outpatient clinic during epilepsy and status epileptic's awareness days at king Faisal specialty hospital and research center in Riyadh in 2019.

The participants were the health providers, patients or relatives of people with epilepsy who had a close relationship with the patient, lived in the same house, and had heard of epilepsy. The participants were interviewed during epilepsy awareness day. The respondents included the mothers, fathers, brothers, sisters, or the husband/wife of patients that were over 15 years of age.

The questionnaire comprised of 21 closed-ended questions to which the responses were either "Yes," "No," or "I do not know." The participants filled out the questionnaire at a prearranged time and location and were not obliged to hurry in their responses. The investigators waited while the questionnaire was completed to offer help if there were any questions. The data was collected from March 26/ 2019 through March 31/ 2019. The 21 items were developed after an extensive review of the national and international literature about epilepsy and status epileptic's awareness and knowledge in general population. The questions were translated into Arabic from the English version.

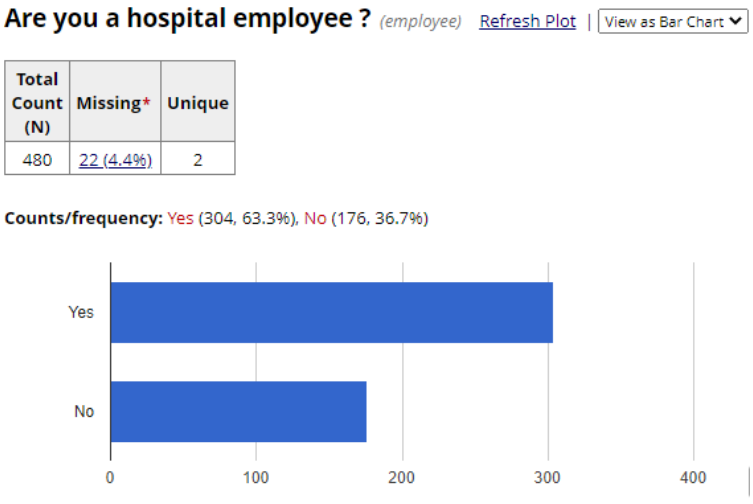
The questions were divided the Twenty-one questions into four sections. First section about demographic information including age, gender, marital status, employment, and occupation. Section investigated the level of knowledge about epilepsy, attitudes, perception, and beliefs of the respondents toward epilepsy and status epileptics. Knowledge and attitude were evaluated for each participant.

This project was approved by the ethics committee in king faisal specialty hospital and research center Riyadh. Saudi Arabia. Participation was voluntary and the responses were anonymous. After obtaining informed consent, 480 literate subjects were enrolled in the study.

The data was analyzed using SPSS version 20.0. The demographic data and epilepsy knowledge and attitude scores of close relatives were analyzed using descriptive statistics (mean, percentage, and frequency distribution). Chi-square (x^2) was used to determine the association between variables and demographic data. To assess the relationships between demographic information and the knowledge and attitude scores, regression analysis was conducted. Pearson's correlation was used to determine the association between attitude and knowledge.

3. Result

Of the 480 participants, 72.9% (350) were females, 26.5% (127) males and (3, 0.6%) no answer. Three hundred Four responded to the questionnaire as a hospital employee (63.3%). The data relating to responders' characteristics are presented in TABLE 1.

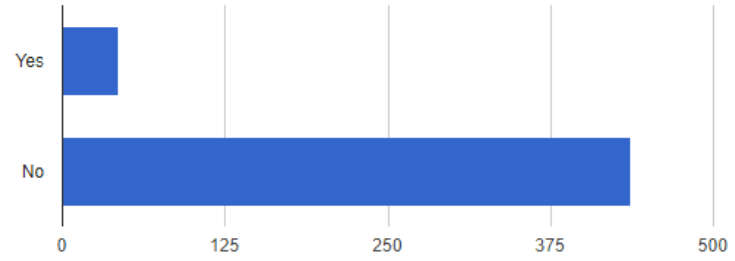


Their job as a doctor was (43, 9.0%) and non-doctor 437 (91) in TABEL 2.

Are you a Doctor ? *(doctor)* Refresh Plot | View as Bar Chart

Total Count (N)	Missing*	Unique
480	22 (4.4%)	2

Counts/frequency: Yes (43, 9.0%), No (437, 91.0%)



A majority of both genders know someone with epilepsy (273,56.9%). And (207,43.1%) dose not knows anyone with history of epilepsy in TABLE 3.

Do you know or have you ever known anyone with Epilepsy

| View as Bar Chart

Total Count (N)	Missing*	Unique
480	22 (4.4%)	2

Counts/frequency: Yes (273, 56.9%), No (207, 43.1%)

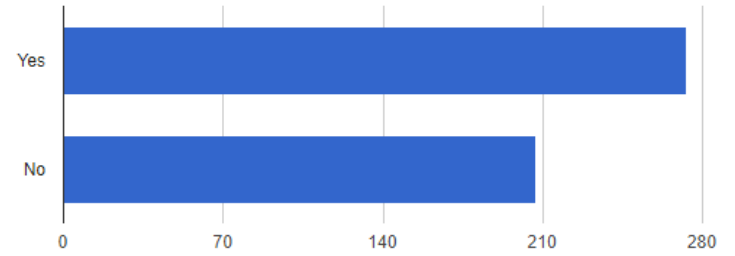


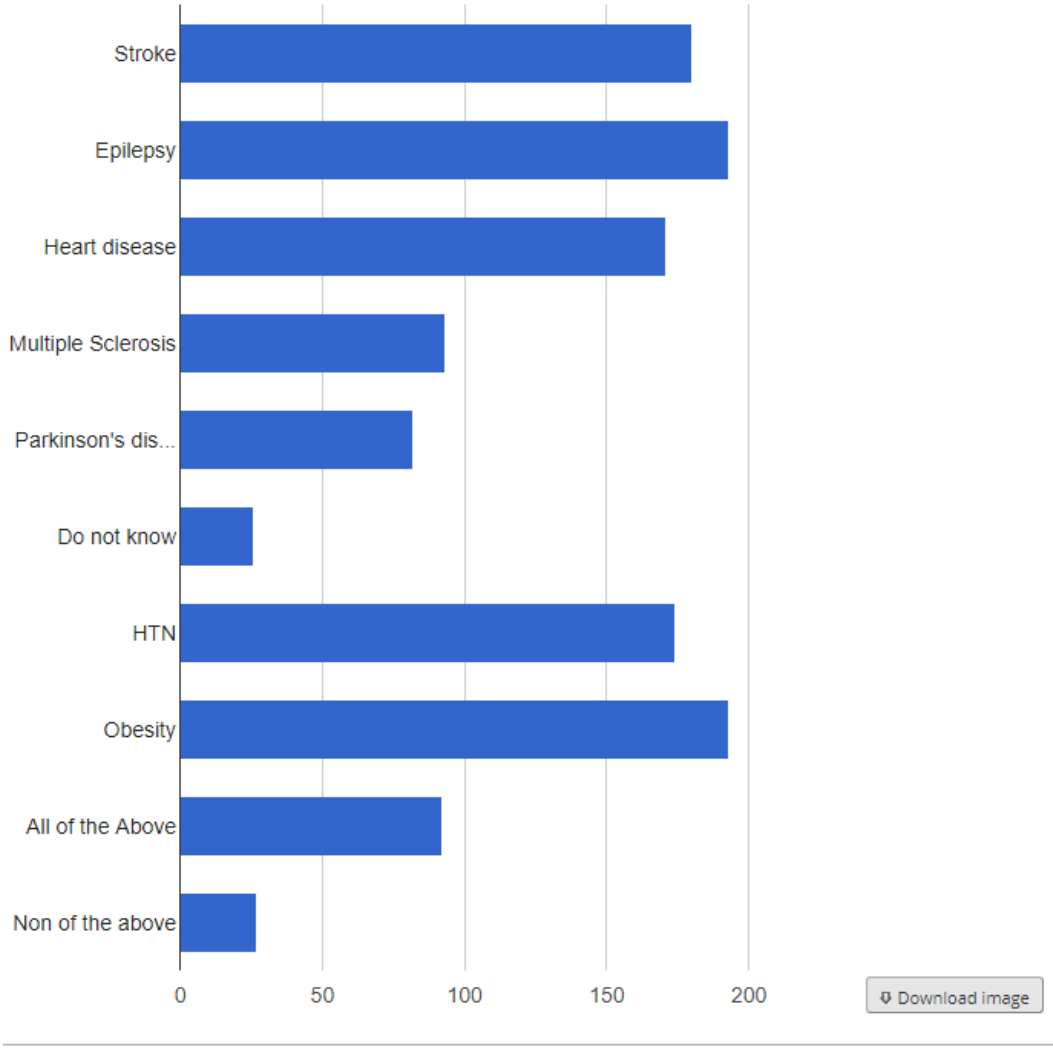
TABLE 4 shows that 193,40.2% of respondents know details about epilepsy and obesity. Other medical conditions (stroke 180,37.5%, heart disease (171,35.6%), Multiple sclerosis knowledge reported in (93,19.4%), and Parkinson disease (82,17.1%), knowledge about hypertension (174,36.3%), and (27,5.65%) not aware about any information regarding these medical conditions.

Which of the following medical conditions you know more details about ?

(conditions_you_know) Refresh Plot

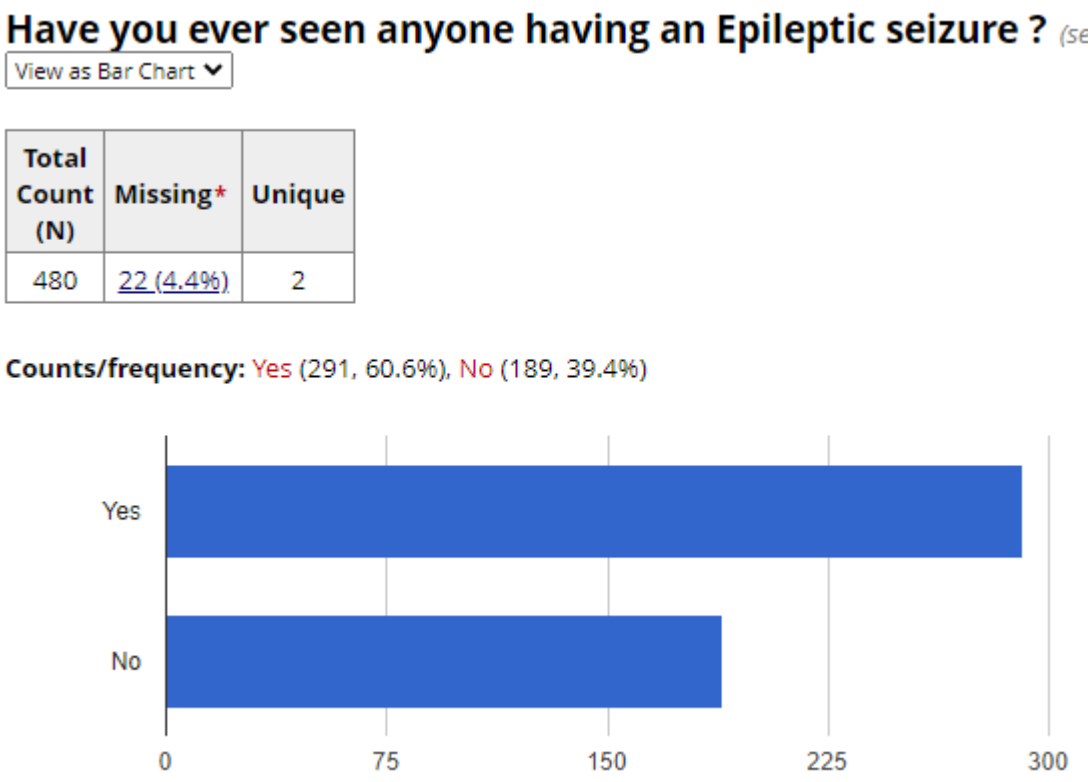
Total Count (N)	Missing*	Unique
480	22 (4.4%)	10

Counts/frequency: Stroke (180, 37.5%), Epilepsy (193, 40.2%), Heart disease (171, 35.6%), Multiple Sclerosis (93, 19.4%), Parkinson's disease (82, 17.1%), Do not know (26, 5.4%), HTN (174, 36.3%), Obesity (193, 40.2%), All of the Above (92, 19.2%), Non of the above (27, 5.6%)

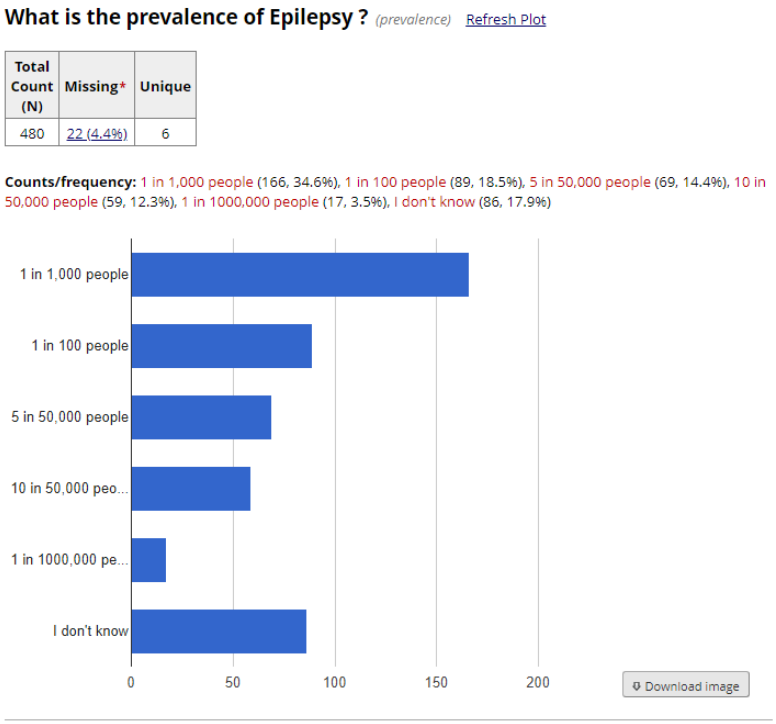


Interestingly, (291,60.6%) of the responders have seen someone seizing while (189,39.4%) never seen someone seizing before.

TABLE 5.



Majority responded correctly to the prevalence of epilepsy which is 1 in 1,000 people in (166,34.6%) in TABLE 6.



More than 46.9% believed that epilepsy could be secondary to inherited disease and 42.7% believed that it could be related to birth defects, and about 27.5% believed that epilepsy could be secondary to stroke.

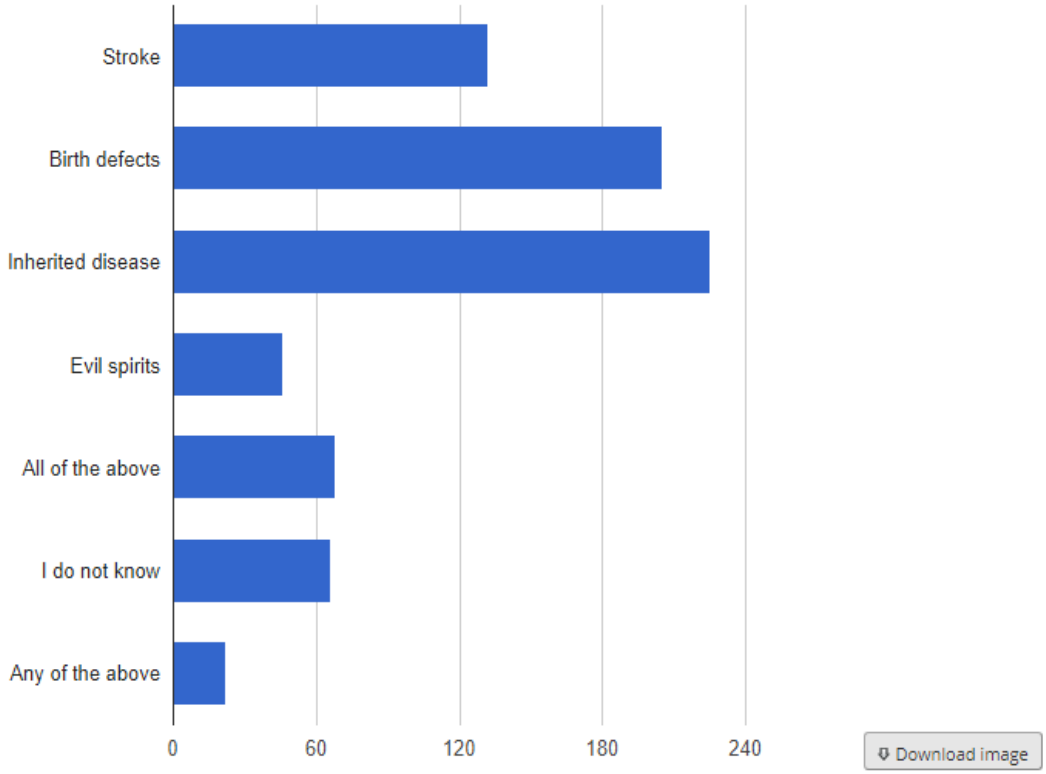
The previous concepts were reported in some studies including Evil spirit as a cause for epilepsy reported in 9.6% of the responders TABLE 7.

What do you think the causes of Epilepsy ? You can choose more than one

(causes_of_epilepsy) Refresh Plot

Total Count (N)	Missing*	Unique
480	22 (4.4%)	7

Counts/frequency: Stroke (132, 27.5%), Birth defects (205, 42.7%), Inherited disease (225, 46.9%), Evil spirits (46, 9.6%), All of the above (68, 14.2%), I do not know (66, 13.8%), Any of the above (22, 4.6%)

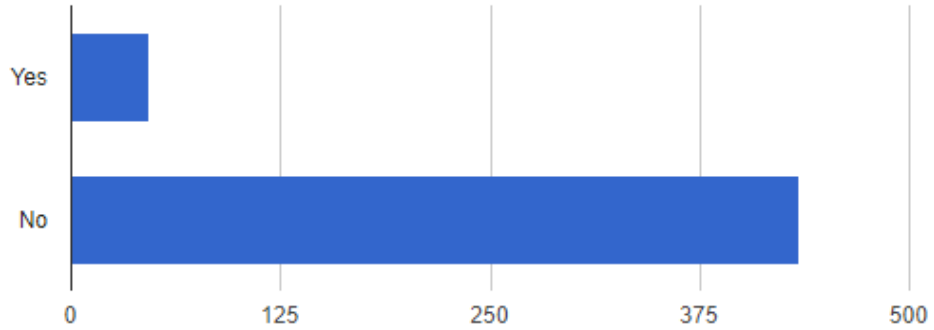


A considerable number answered positively as epilepsy is not a contagious disease (434,90.4%) table 8. More than 52.9% of the responders would not allow an epileptic relative to drive a car while 43.1% will allow. TABLE 9.

Do you think that Epilepsy is contagious ? *(contagious)* Refresh Plot

Total Count (N)	Missing*	Unique
480	22 (4.4%)	2

Counts/frequency: Yes (46, 9.6%), No (434, 90.4%)



If you have Epilepsy , you are not allowed to drive a car *(drive*

View as Bar Chart

Total Count (N)	Missing*	Unique
480	22 (4.4%)	3

Counts/frequency: Yes (207, 43.1%), No (254, 52.9%), I don't know (19, 4.0%)

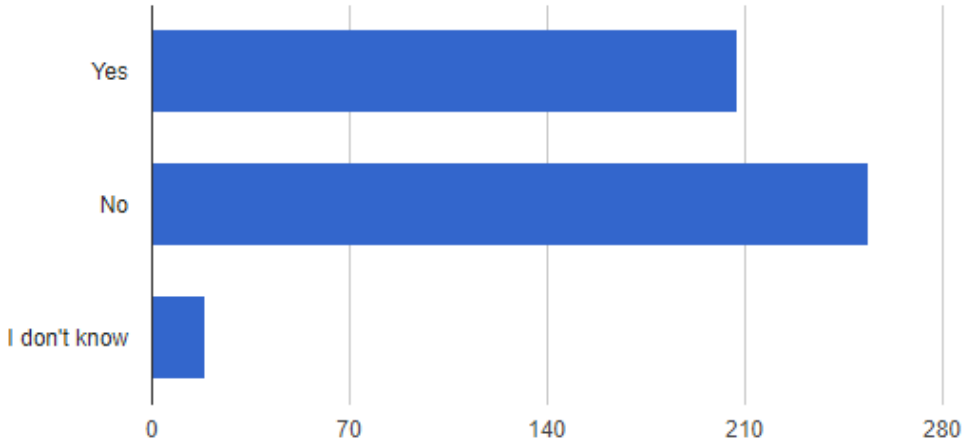


TABLE 10 shows that 363 (75.6%) responders had a knowledge of the initial procedures to help a child in seizure, presenting reasonable answers, compared to 57 (11.9%) they do not know what to do. Few of the respondents indicated that they would perform at least some of the correct first-aid measures.

Which of the following would be an appropriate response to seeing someone having an Epileptic seizure ? *(appropriate_response)* Refresh Plot

Total Count (N)	Missing*	Unique
480	22 (4.4%)	6

Counts/frequency: Protect their head with soft material (363, 75.6%), Call for help (352, 73.3%), Put something in the person's mouth (150, 31.3%), Try to restrain the person (86, 17.9%), Walk away (31, 6.5%), Do not know what to do (57, 11.9%)

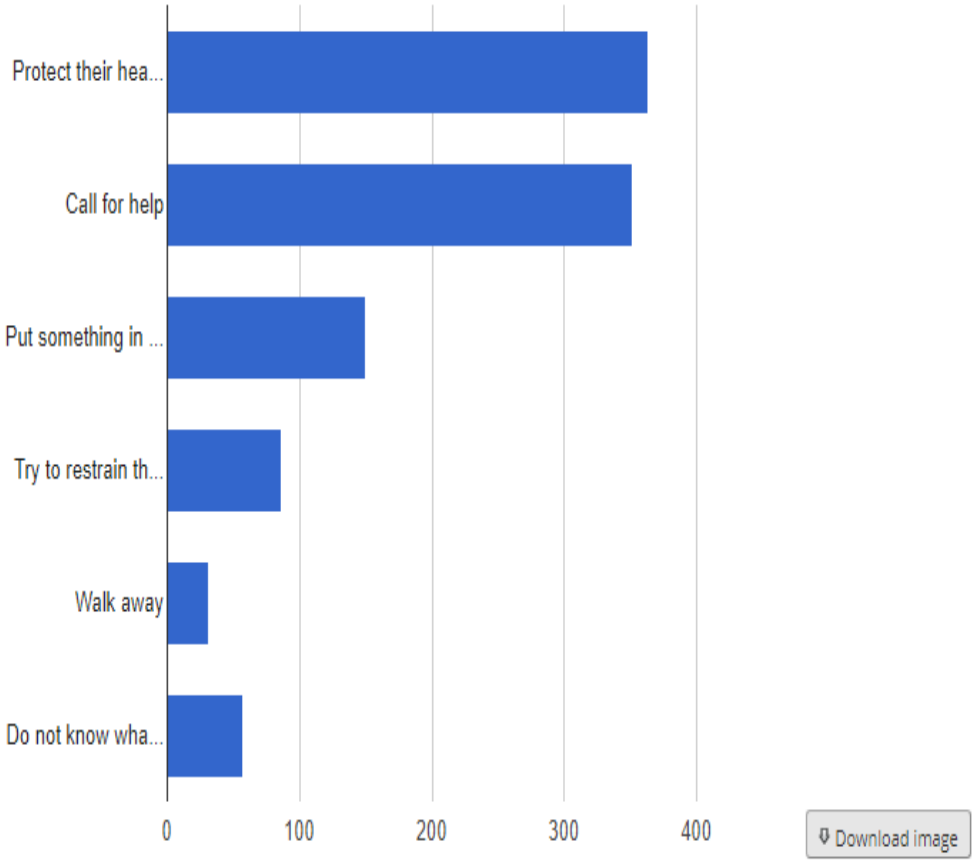
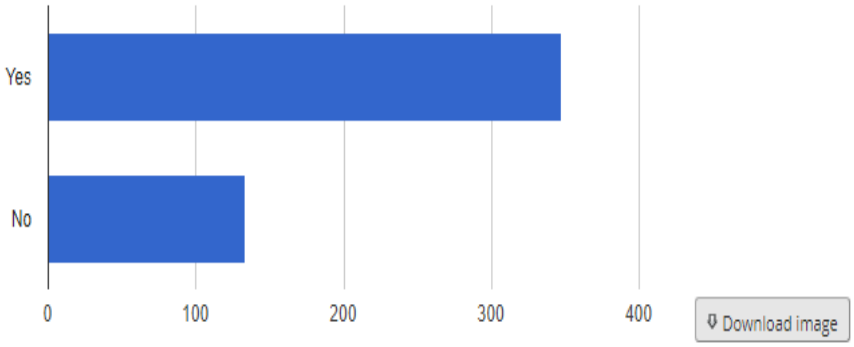


TABLE 11 AND 12_shows that majority of the respondents believed that epilepsy could lead to death and 56.5% they never heard about drug resistant epilepsy.

Can people die as a result of having Epilepsy ? *(die)* Refresh Plot | View as Bar Chart

Total Count (N)	Missing*	Unique
480	22 (4.4%)	2

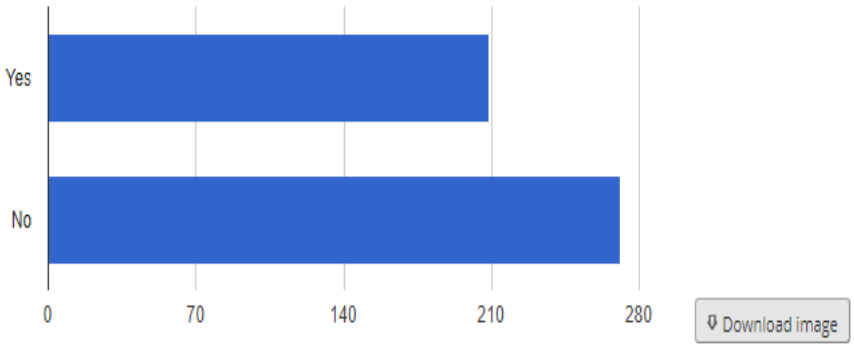
Counts/frequency: Yes (347, 72.3%), No (133, 27.7%)



Have you ever heard about drug resistant Epilepsy ? *(drug_resistant)* Refresh Plot | View as Bar Chart

Total Count (N)	Missing*	Unique
480	22 (4.4%)	2

Counts/frequency: Yes (209, 43.5%), No (271, 56.5%)

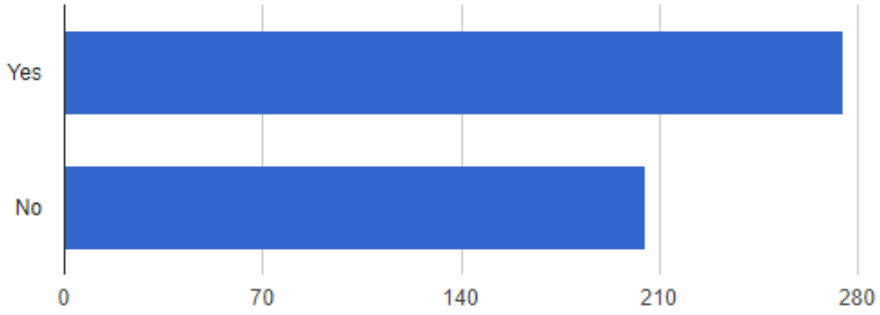


TABLES 13 and 14 shows that 42.7% of respondents did not never hear about status epilepticus and 57.3% knows about it. Consequently, 32% of the respondents defined it correctly as a seizure lasted 5minutes or more.

Have you ever heard about status Epilepsy ? *(heard_status_epilepsy)*

Total Count (N)	Missing*	Unique
480	22 (4.4%)	2

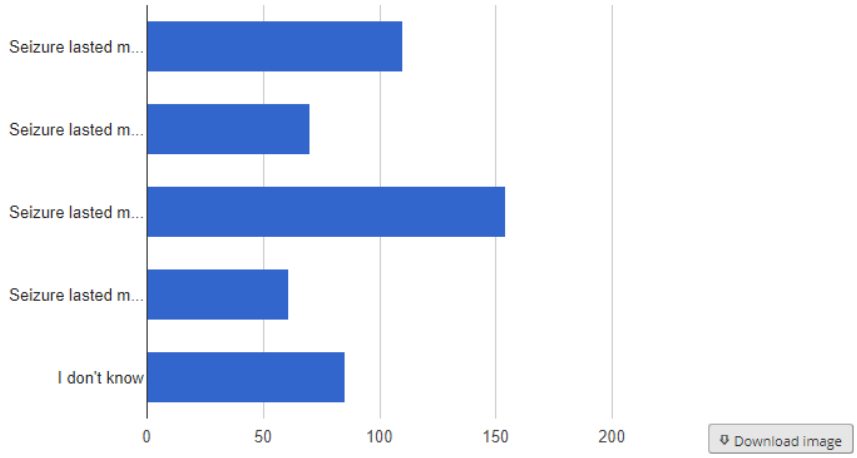
Counts/frequency: Yes (275, 57.3%), No (205, 42.7%)



What is the meaning of status Epileptic ? *(status_epileptic)* Refresh Plot | View as Bar Chart

Total Count (N)	Missing*	Unique
480	22 (4.4%)	5

Counts/frequency: Seizure lasted more than 2 minutes (110, 22.9%), Seizure lasted more than 3 minutes (70, 14.6%), Seizure lasted more than 5 minutes (154, 32.1%), Seizure lasted more than 1 hour (61, 12.7%), I don't know (85, 17.7%)



4. Discussion

This survey aimed at getting some ideas about the knowledge, attitude and practice of epilepsy and status epilepticus among health professionals and public in Saudi Arabia. The study showed relatively low awareness of status epilepticus in comparison

to epilepsy among public. This may be ascribed to the fact that most of the awareness about epilepsy and no awareness about status epilepticus.

This study indicted the lack of training of health care professional and public about seizure first aid. Thus, it is necessary to set up a better educative program to lessen the myths and fears associated with epilepsy and help anyone during seizure attacks at school or work place.

The attitudes and epilepsy-related knowledge are an important component of the educational experiences of anyone with epilepsy, but unfortunately this has been neglected even in the developed world [7].

In this study, similar to another study, the answers to many questions showed that the majority of respondents had never been informed about epilepsy risk factors, duration of status epilepticus, drug resistant epilepsy and complications related to status epilepticus and epilepsy.

The concept of epilepsy as a contagious disease comes from outmoded ideas and makes the life of epileptics quite miserable. People with epilepsy were viewed with fear, suspicion and misunderstanding and were subjected to enormous social stigma. A few respondents considered epilepsy as not a contagious and would not allow an epileptic relative to drive a car.

5. Conclusions

The health care professional had, at the time of the investigations, a relatively good level of awareness, and understanding of certain aspects of epilepsy, and a minority of the study population demonstrated low level of awareness toward epilepsy. Negative attitudes and myths exist among the minority with lack of knowledge especially about first aid for seizure. The epilepsy awareness campaigns should be set more frequent into effect to come over the public conceptual barriers faced by epileptic patients.

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