

ORIGINAL ARTICLE

Knowledge, awareness, and attitude of the health care students towards epilepsy in Jouf University

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ABSTRACT

Background: Epilepsy is a common neurological disorder with a high prevalence. Epilepsy is a brain disorder which is characterized by recurrent seizures. This study was done to assess the knowledge, awareness, and attitude on epilepsy among undergraduate health care students in Jouf University.

Methodology: A cross-sectional study was conducted through questionnaire among 523 participants of health care students in Jouf university and studied in five different specialties: Medicine, Nursing, Pharmacy, Physiotherapy, and Laboratory Assistants.

Results: The knowledge about epilepsy was high among the participants. Around 82.6% had heard or read about epilepsy. Majority of participants of all the specialties (39.4%) reported that the epilepsy is a brain disease and only 3.4% thought it was acquired through accident. Regarding treatment of epilepsy, majority reported treatment by medication (59.7%) in all specialties. 69.4% of all participants believed that epilepsy is not a contagious disease, the proportion was observed highest in medicine students (16.6%), as compared to nursing (15.7%), physiotherapy (14%), pharmacy (14%), and laboratory assistants (9.2%) ($p = 0.042$). In attitude toward epilepsy, 60.4% said that there was no need of special classes for epileptic children. Where 56.4% would employ someone with epilepsy. However, 58.5% of them would not marry someone with epilepsy.

Conclusion: The knowledge and awareness of participants of the study was of favorable level and the attitude was good. However, there is still a need to improve certain aspects of attitude and understanding of epilepsy among university students.

Keywords: Knowledge, awareness, attitudes, students, epilepsy.

Introduction

Epilepsy is a common neurological disorder with a prevalence range of 3.3% to 7.8% in every 1,000 individuals [1]. Epilepsy is -a disorder of the brain which is characterized by recurrent seizures; a result of sudden excessive electrical discharge in the brain cells. According to World Health Organization, epilepsy is diagnosed if patients go through recurring seizures with at least two being unprovoked [2].

Epileptic seizures fall into two principle classes: summed up and halfway. Summed up seizures affect an enormous segment of the cerebrum, and have characteristic loss of cognizance. Absent Seizures often experienced in childhood is a petit-mal seizure which has characteristic display of 3 Hz spike-wave releases on electroencephalogram in people. In contrast to summed up seizures, halfway (central) seizure happens regularly

in half cerebral area and can be additionally classified into incomplete and complex fractional seizure. In incomplete seizures, cognizance stays unblemished, while complex fractional seizures normally display impaired consciousness [3].

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Received: 19 September 2019 | **Accepted:** 06 October 2019

The common risk factors for the development of epilepsy are cerebrovascular diseases, brain tumors, alcohol, traumatic head injuries, malformation in cortical development, genetic inheritance, and infections of the central nervous system [4]. Health care students will be future professionals, who will provide care to patients with epilepsy. Thus, it is significant that these future health care providers are educated about epilepsy [5].

Several types of research studies have been conducted to assess the knowledge, awareness, and attitude toward epilepsy among different groups of health care students in different countries [5–8]. Tedrus et al. [6] showed that there were confusions about the causes, treatment, and nature of epilepsy among medicinal undergraduates at a Turkish restorative school, which caused negative dispositions towards patients with epilepsy. Falavigna et al. [5] showed lack of information on epilepsy among health care students in southern Brazil. Njamnshi et al. [7] conducted research among nurses and laboratory assistants, which showed that the information level was high. Hasan and Khan [8], conducted a study among pharmacy students whose results ensured that the majority of students knew about epilepsy; however, the majority were deficient in knowledge on the treatment of epilepsy.

The aim of this study was to assess and improve the knowledge, awareness, and attitude on epilepsy among university health care students of different departments (medicine, nursing, pharmacy, physiotherapy, and laboratory assistants) in Jouf University.

Subjects and Methods

This was a descriptive cross-sectional KAP study conducted on 500 health care students, between 2018 and 2019. A self-administered questionnaire was distributed to five health care majorities (medicine, nursing, pharmacy, physiotherapy, and laboratory assistant) in Jouf University, Saudi Arabia. All undergraduate healthcare students (male and females) aged 19–25 years and studying in 1st to 4th year were included in this

study and postgraduate health care and dental students were excluded. Probability sampling technique using a multistage random sampling method was used.

Data were collected with a standardized questionnaire composed of four sections. Five questions were related to the respondent’s sociodemographic backgrounds, three questions were about awareness of epilepsy, six questions about knowledge epilepsy, and three questions about the respondent’s attitudes toward epilepsy. Some of these questions were administered in the studies of United States of America and other countries such as Canada, Korea, Malaysia, and Indonesia [5–9].

Data analysis was performed using SPSS. Descriptive statistics were performed. Statistical analysis included the percentage of responses. The comparisons were made using (Chi-square) for knowledge, awareness, and attitude.

Results

A total of 523 participants from five different specialties responded to the questionnaire. Out of 523 respondents, there were 291(55.6%) males and 232 (44.4%) females. The highest response was obtained from first-year students in medicine (23%), followed by second and third-year students in nursing 22%, pharmacy, 20%, fourth-year students in physiotherapy 19% as shown in Figure 1.

Most of the participants were quite familiar with epilepsy. Among all specialties, there were 82.6% who had ever heard or read about epilepsy. The proportion of pharmacy 93.3% was higher than other students ($p < 0.05$), where 47% of participants knew someone with epilepsy and 47.4% had seen an epileptic seizure (Table 1).

The majority in all specialties reported it as a brain disease 39.4%, this proportion was higher among students of medicine 22.8% and nursing 22.2 % [p value (0.000)]. Only 3.4% thought it was acquired through accident. The other causes are shown in Figure 2.

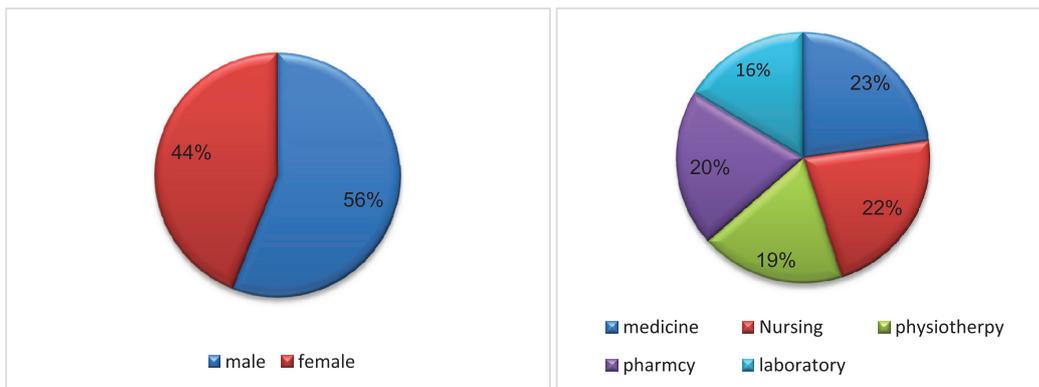


Figure 1. Percentage of male and female participants and participant distribution among different specialties.

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Regarding the treatment of epilepsy, the majority reported treatment by medication 59.7% and 2.9% suggested by teas and medicinal herbs. The other methods and the methods chosen by specialties are shown in Figures 3 and 4, respectively.

Regarding first aid management, about 39.2% chose to move the objects away that could hurt the patient, 31% chose to put something inside the patient's mouth, so that the person won't asphyxiate, 14.1% chose to stay away from an epileptic patient, 12.4% chose to hold and try to

Table 1. Awareness of epilepsy among health care students.

Awareness toward epilepsy	Medicine		Nursing		Physiotherapy		Pharmacy		Laboratory assistant		p value
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
Do you ever heard or read about epilepsy?	79.8	20.2	81.9	18.1	87.6	12.4	93.3	6.7	68.6	31.4	0.000*
Do you know or have you ever known anyone who had epilepsy?	51.3	48.7	41.1	58.6	44.3	44.7	44.8	55.2	54.7	45.3	0.303
Have you ever seen anyone having an epileptic seizure?	42.9	57.1	47.4	52.6	41.2	58.8	53.3	46.7	53.5	46.5	0.265

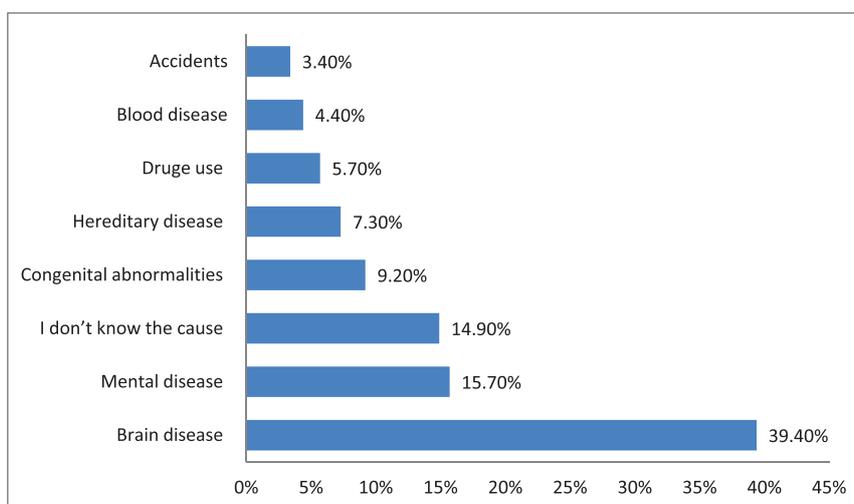


Figure 2. Causes of epilepsy.

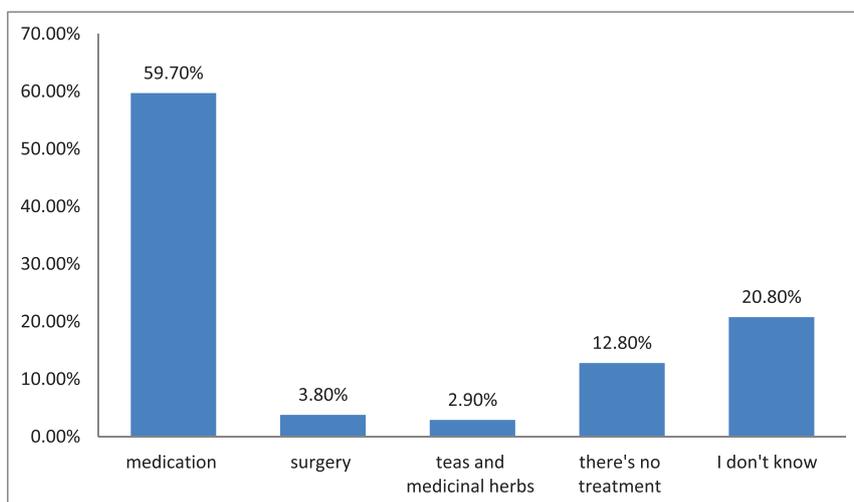


Figure 3. Methods of treatment of epilepsy.

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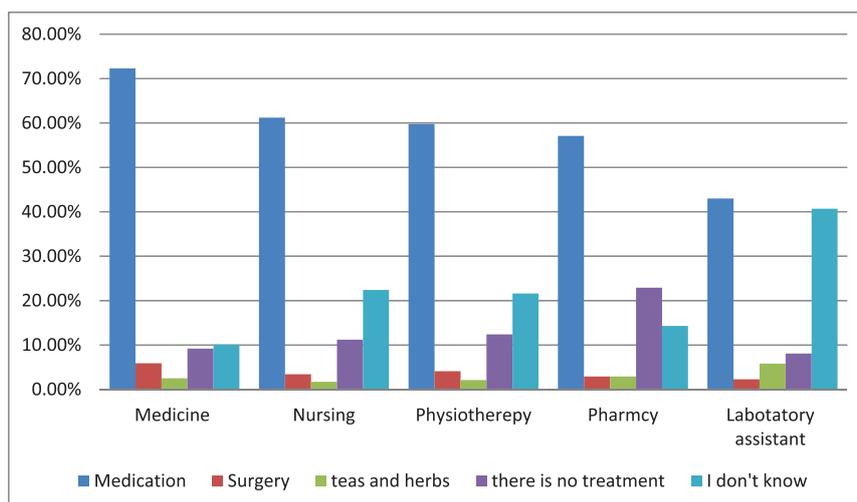


Figure 4. Methods of treatment chosen by specialties.

Table 2. Attitude about epilepsy among health care students.

Attitude toward epilepsy	Medicine		Nursing		Physiotherapy		Pharmacy		Laboratory assistant		p value
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
Do you think epilepsy is a contagious disease	26.9	73.1	29.3	70.7	24.7	75.3	30.5	75.3	44.2	55.8	0.042
Do you think the patients usually have sever psychiatric disease? with epilepsy	28.6	71.4	30.2	69.8	38.1	61.9	28.6	71.4	38.4	61.6	0.328
Do you judge necessary that students with epilepsy study in special classes ?	33.6	66.4	31	69	41.2	58.8	47.6	52.4	47.7	52.3	0.031*
Would you employ someone with epilepsy ?	73.1	26.9	56	44	43.3	56.7	60	40	44.2	55.8	0.000*
Would you marry someone with epilepsy?	52.1	47.9	44	56	30.9	69.1	41	59	36	64	0.023*

contain the patient, whereas 3.3% chose to throw water at the patient.

Post seizure, 85.7% suggested to leave the patient to rest, 7.3% would force the patient to eat, and 7.1% would force the patient to exercise.

69.4% of all participants believed that epilepsy is not a contagious disease, the proportion was observed higher in medicine (22.8%) and nursing (22.2%) responded 9.2% ($p = 0.042$).

Out of all participants, 60.4% said there is no need of special classes for epileptic children. Where 56.4% of them would employ someone with epilepsy. However, 58.5% of them would not marry someone with epilepsy as shown in Table 2.

Discussion

The majority of students recognized that brain disease is the main cause of seizures, among them medicine

(22.8%) and nursing (22.2%) responded higher than other specialties with significant difference ($p = 0.000$). It was observed that many students also correlated epilepsy with mental disease (15.7%), and 3.4% thought epilepsy occurred due to accidents. In a Southern Brazilian study [5], health care students (73.4%) correlated epilepsy with brain disease, and 26.4% with mental disease, this proportion was higher than the present study. Another, Indian study results showed that 45% of medical students stated that epilepsy is a form of brain tumor [10].

Many healthcare students (39.2%) responded with moving objects away that could hurt the epileptic patient during a seizure, where other specialties responses were: physiotherapy (51.5%), medicine (42.9%), nursing (39.7%), pharmacy (36.2%), and laboratory assistants (23.3%). The response on the same stated practice was shown by a study in which 60.5% of medicine and 48.2% nursing responded that they would move objects away [5]. These data suggest that health care students have good knowledge about assistance and safe handling of

a seizure. The idea of introducing objects into the mouth to protect the tongue during epileptic seizure has been observed in 31% of the all healthcare students, among them lack of knowledge in laboratory assistant 34.9% and pharmacy 34.3%. Here, in this study found nursing (31.9%), medicine (27.7%), and physiotherapy (26.8%) had a good idea.

About the treatment of epilepsy, there was a statistically significant difference among health care students, in their knowledge about treating epilepsy with medication, highest response was by medicine students with 72.3%. Only laboratory assistant (40.7%) chose that they did not know the treatment of epilepsy. These results of treatment with medication are in line with the Southern Brazilian study [5].

The percentage of healthcare students regarding awareness, who had ever heard or read about epilepsy was 82.6%, while the proportion of Brazilian University students was also good regarding epilepsy awareness 94%.

Regarding attitude toward epilepsy, the Southern Brazil university study showed that 12.2% considered epilepsy as a psychiatric disease, but in the present study, 67.7% of the participants thought that people with epilepsy are not psychiatric patients [5]. Another erroneous concept present in many societies is that epilepsy is a contagious disease; in the present study majority of participants knew it is not contagious disease.

In the present study, 56.4% responded that they would employ an epileptic patient, and 58.5% wouldn't marry a person with epilepsy. In contrast, Southern Brazil university study showed that most of the participants would employ and would marry a person with epilepsy [5].

Conclusion

Regarding knowledge toward epilepsy among health care students, it was found that medicine, nursing, and physiotherapy had better knowledge, and pharmacy students had minimum knowledge, the least knowledge was in laboratory assistants. Regarding awareness, pharmacy, physiotherapy, nursing, and medicine students were more aware as compared to laboratory assistants. Maximum health care students thought that epilepsy is not a psychiatric disease and the attitude was more appropriate in medicine and pharmacy students. Laboratory assistants thought that epilepsy is a contagious disease.

The knowledge and awareness of participants of the study was of favorable level, and the attitude was good. However, there is still need to improve certain aspects of attitude and understanding of epilepsy among university students.

Acknowledgment

Sponsoring agent and financial assistance (deanship of scientific research).

List of Abbreviation

KAP Knowledge, awareness, practice

Conflict of interest

None declared.

Funding

None.

Consent for publication

Informed consent will be taken from all the participants.

Ethical approval

This article was approved by the local committee of bioethics, (LCBE), Jouf University via letter No 6-20-3/40.

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