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The knowledge level of health sciences students about epilepsy and its relationship with attitudes towards epilepsy in Turkey

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Abstract

Background & Objectives: Although epilepsy is one of the most prevalent diseases, it is highly surrounded by stigmatization and negative attitudes toward epilepsy. Due to numerous incorrect or insufficient knowledge attributed to epilepsy, people have negative attitudes against the disease. This study was performed to examine the knowledge levels and attitudes about epilepsy of undergraduate students studying at the faculty of health sciences in Turkey. *Methods*: In the study, the epilepsy knowledge level and attitudes towards epilepsy and the person with epilepsy were evaluated in 1,019 students studying at the faculty of health sciences at Konya Selcuk University. The scales of epilepsy knowledge and attitudes towards epilepsy were transformed into an online form and sent to participants' e-mail addresses. *Results*: Two hundred eighty (27.5%) students read scientific documents about epilepsy. Especially those who read textbooks and scientific articles/research articles had a higher level of knowledge ($p = 0.002$). The least well-known issue was related to the treatment of the disease. Although most students had a high level of epilepsy knowledge, they had negative attitudes especially toward dating and marriage with epileptic individuals. Female, clinical students, those who witnessed epileptic seizures, and those who had a higher level of knowledge about epilepsy had more positive attitudes towards epilepsy ($p < 0.05$).
Conclusion: Negative attitudes towards epilepsy patients still exist among health science students in Turkey. Health sciences faculty education programs should be designed to increase the epilepsy awareness of students. Increasing the level of knowledge and awareness may lead to better attitudes.

Keywords: Turkey, epilepsy, knowledge, attitude, health science students

INTRODUCTION

Epilepsy is a disease that affects all societies regardless of age, gender, and race. In addition to its primary effects, the disease affects social life and daily activities due to secondary social concepts and beliefs. This situation also leads to the emergence of wrong attitudes and behaviours towards the disease and patients.[1,2] Although approximately 70% of epileptic seizures can be controlled with medical treatment and regular follow-up, stigmatization, misinformation, attitudes, and behaviours related to the disease continue worldwide.[3] Inadequate and wrong information about epilepsy causes negative attitudes and behaviours towards patients, many psychosocial problems, and deterioration of quality of life at the personal or social level.[4,5]

Epilepsy is a common disease that requires long-term follow-up and treatment, affecting many segments of society. Therefore, university students with high intellectual potential socially today and in the future should have sufficient knowledge. Health professionals who will follow up and treat these patients and meet the needs of patients and their families should also have adequate background in this regard. However, insufficient information and professional help are some of the problems frequently encountered by epilepsy patients and their relatives.[5-7] Epilepsy patients have different experiences during their time for examination and treatment in various departments in the hospital environment. Hence, attitudes and behaviours towards epilepsy patients in the hospital environment are not limited to physicians only. The knowledge, attitudes, and behaviours

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of other hospital personnel such as nurses, logisticians, medical technicians, emergency support team, nurses, and administrators affect patients' experiences in the hospital. It is not possible to predict the onset time of epileptic seizures. In addition, healthcare workers may encounter a patient with an epileptic seizure anywhere in the hospital. Therefore, other health professionals apart from physicians may also witness seizures. There are few studies evaluating the knowledge and attitude of medical students in epilepsy in Turkey.[8] However, none of these studies focused on students studying in different departments in the health sciences faculties. Evaluating the knowledge and attitudes of these students on epilepsy will enable targeted scientific education programs. Therefore, the present study aimed to evaluate the knowledge of Turkish health sciences students about epilepsy, their attitudes towards epilepsy and an epileptic person, and to reveal the factors affecting them.

METHODS

Study population and ethical approval

The present study was performed at Selcuk University, Konya, a higher education institution located in the middle region of Turkey, and it is known that the approximate number of students of the university is 100,000. This study was designed as a cross-sectional study in the faculty of health sciences. The study included 1,019 students studying in different departments and degrees in the faculty of health sciences in the 2021/2022 academic year.

Before the study, the local ethics committee approval was obtained from Selcuk University, Health Sciences University (Meeting no: 02, Project no: 1766, Decree no: 2021/1766). The study process was performed per the Declaration of Helsinki and the good clinical practices guideline. Only students who wanted to participate in the study voluntarily online were included. Questionnaires were completed using an online form (Google Forms, Turkish Language). The scales were transformed into an online form and sent to participants' e-mail addresses. Students who refused to participate in the study were excluded.

Participants

All participants consisted of students studying in the departments of healthcare management, child development, social services, midwifery, nutrition and dietetics, emergency and disaster management, audiology, and physical therapy and rehabilitation at the faculty of health sciences. The data of the participants who answered all the questions were included in the analysis. The study form was sent to 1,350 students. The number of students who answered all questions was 1,019.

The students were questioned in which class they were educated in from 1st to 4th grades, their age, gender, marital status, presence of a disease requiring long-term treatment, and syncope and/or seizure history. It was evaluated whether they had encountered a patient who had an epileptic seizure before, whether they had information about epilepsy, and if so, from which sources they obtained information. At the same time, the family history of the students, the presence of individuals with epilepsy in the family, and the degree of kinship, if any, were investigated.

Epilepsy knowledge scale

This scale[9], in which the knowledge about epilepsy disease and patients was evaluated, consisted of 16 questions. It measured students' medical (e.g., causes of illness, treatment, and triggers of seizures), social (e.g., being able to work in regular jobs and study in public schools), and first aid knowledge seizure (e.g., make a seizure patient sniff an onion and pouring water on face) about epilepsy. These were closed-ended questions that could be answered as "true," "no idea," or "false." The total score ranged between 0 and 16, with higher scores representing a higher level of epilepsy knowledge. The validity and reliability of the scale were demonstrated for Turkish people, and the Kuder Richardson value was found to be 0.72.[9,10]

The scale of attitudes towards epilepsy and epileptic individual

This scale, which evaluated the attitude towards epilepsy and an epileptic person, consisted of 14 items. Each item was scored between 1 and 5 on a five-point Likert scale (1: I completely disagree, 5: I completely agree). Total scores ranged from 14 to 70, with lower scores representing a more positive attitude. The validity and reliability of the scale were demonstrated, and Cronbach's alpha value was determined as 0.84.[9]

Statistical analysis

Data were analyzed with SPSS 17.0 Package Software (Statistical Package for the Social Sciences Inc.; Armonk, NY, USA). The descriptive

features of the findings were presented as number (n), percentage (%), and mean ± standard deviation (minimum-maximum) values. Normality analysis was performed with Kolmogorov Smirnov test. According to the normality analysis results, two independent groups were compared with the independent sample T or Mann Whitney U tests. The comparison of more than two independent groups was performed with the One Way Anova test (parametric test) if the numerical data were normally distributed and with the Kruskal Wallis test (non-parametric test) if not. The $\chi 2$ test was used to confirm the differences between categorical variables. Numerical data were evaluated with Spearman's correlation test. Correlation coefficient (r) results were accepted as 0.05-0.30 weak, 0.30-0.40 weak-moderate, 0.40-0.60 moderate, 0.60-0.70 strong, 0.70-0.75 very strong, and 0.75-1.00 excellent correlation. The results were evaluated within the 95% confidence interval, and statistical significance was accepted as $p < 0.05$.

RESULTS

Participants

The number of students who participated and completed the survey was 1,019 (the responder rate was 75.5% (1,019/1,350)), and 892 (87.5%) were female. In the study, students of healthcare management and nutrition and dietetics departments were the most common departments (209 (25.5%) and 170 (16.7%) participants, respectively). The mean age of the students in the study was 20.40 ± 2.20 (17-45) years, and 26 (2.55%) were married. The sociodemographic data of the students are listed in Table 1.

All students included in the study answered the questions completely. Table 2 presents the percentages of students' answers to questions about their knowledge of epilepsy and their attitudes towards epilepsy and an epileptic person.

Table 1: Distribution of the participants by descriptive characteristics (n = 1,019)

Descriptive characteristics	Number	Percentage
Department		
Healthcare management	209	20.5
Child development	151	14.8
Social services	103	10.1
Midwifery	110	10.8
Nutrition and dietetics	170	16.7
Emergency and disaster management	77	7.6
Audiology	102	10.0
Physical therapy and rehabilitation	97	9.5
Grade		
Preclinical (1-2 years)	594	58.3
Clinical (3-4 years)	425	41.7
1st year	324	31.8
2nd years	270	26.5
3rd years	255	25.0
4th years	170	16.7
Gender		
Female	892	87.5
Male	127	12.5
Marital status		
Married	26	2.55
Single	993	97.4
Presence of a disease requiring long-term treatment		
Yes	116	11.4
No	903	88.6
Syncope and/or seizure history		
Yes	86	8.4
No	933	91.6

Table 2: Responses of students to questions on knowledge about epilepsy

Question	Total	Male	Female	p	Pre-clinic	Clinic	p
Have you read scientific or academic documents about epilepsy? (Yes)	27.5	26.8	27.6	0.916	21.9	35.3	**0.001***
Do you have a history of syncope or seizure attack? (Yes)	8.4	5.5	8.9	0.236	8.9	7.8	0.568
Have you ever witnessed a seizure or syncope attack? (Yes)	29.7	30.7	29.6	0.836	24.7	36.7	**0.001***
Do you know someone with epilepsy in a first-degree relative? (Yes)	5.0	4.7	5.0	0.876	5.2	4.7	0.772
Do you know someone with epilepsy in a second-degree relative? (Yes)	11.9	7.1	12.6	0.079	12.3	11.3	0.695
Knowledge items							
Epilepsy has many different types. (True)	50.3	54.3	49.8	0.345	47.3	54.6	**0.022**
Most people with epilepsy can work. (True)	65.3	65.4	65.2	1.000	61.6	70.4	**0.004**
Most children with epilepsy can go to public schools. (True)	67.8	66.1	68.0	0.685	63.6	73.6	**0.001***
Patients with epilepsy can be dangerous to others during a seizure. (False)	53.9	53.5	53.9	1.000	49.8	59.5	**0.002**
Some seizures may last for a matter of seconds. (True)	53.5	48.8	54.1	0.296	49.2	59.5	**0.001***
For most patients with epilepsy, seizures can be controlled with drugs. (True)	54.3	48.8	55.0	0.216	51.3	58.4	**0.030**
Brain surgery can be used to treat epilepsy in some cases. (True)	18.8	19.7	18.7	0.809	17.8	20.2	0.372
Most people with epilepsy have normal intelligence. (True)	73.8	70.9	74.2	0.450	68.5	81.2	**0.001***
Patients with epilepsy can be as successful at work as others. (True)	79.2	71.7	80.3	**0.035**	74.2	86.1	**0.001***
An epileptic seizure is caused by an abnormal function of the nerve cells in the brain. (True)	63.9	63.8	63.9	1.000	59.3	70.4	**0.001***
Epilepsy is a kind of incurable disorder. (False)	41.4	35.4	42.3	0.150	38.4	45.6	**0.024**
Inadequate sleep, stress, and taking alcohol can cause a seizure. (True)	78.9	69.3	80.3	**0.007**	75.6	83.5	**0.002**
When you see a person having a seizure, you can stop the seizure by giving him/her an onion to smell. (False)	44.7	27.6	47.2	**0.001**	34.8	58.6	**0.001***
Patients with epilepsy can lead normal lives. (True)	74.4	69.3	75.1	0.159	69.9	80.7	**0.001***
Some kinds of seizures can hardly be noticed by others. (True)	54.6	50.4	55.2	0.341	50.0	60.9	**0.001***
When you see a person having a seizure, you should spill water on his/her face to stop the seizure. (False)	54.3	47.2	55.3	0.105	47.5	63.8	**0.001***

***p < 0.001**

Knowledge about epilepsy

Two hundred eighty (27.5%) of the students stated that they read scientific documents about epilepsy. The most common sources of information were websites (n = 134, 47.9%), textbooks (n = 67, 23.9%), scientific articles/research articles (n = 42, 15%), current newspapers/journals (n = 25, 8.9% and others (n = 12, 4.3%). The questions with the most correct answers were that "patients with epilepsy can be as successful at work as others" (79.2%), and "reasons such as inadequate sleep, stress, and taking alcohol can cause a seizure" (78.9%). The questions with the least correct answers were that "brain surgery is a method used in some cases to stop epilepsy" (18.8%) and "epilepsy is a kind of curable disorder" (41.4%). All questions measuring students' knowledge about epilepsy and the percentage of correct answers given are listed in Table 2.

The knowledge level score of the participants about epilepsy was 9.29 ± 3.63 (2.0-16.0). The level of knowledge about epilepsy was higher in those who read scientific documents ($p < 0.001$). In particular, it was higher in those who read textbooks and scientific articles/research articles than in the other groups ($p = 0.002$), and higher in female and married participants ($p = 0.045$). There was no difference between living environment and epilepsy knowledge level scores ($p = 0.359$). The epilepsy knowledge level was different among the education departments of the faculty, as being higher especially in the midwifery department ($p < 0.001$). The knowledge level was higher in the groups with high university education years and clinical internships (in the 3rd and 4th years of education) ($p < 0.001$). It was also determined to be higher in participants who also had a history of syncope, witnessed a seizure-syncope event, or had a history of epilepsy in first and/or second-degree family members ($p = 0.008$, $p < 0.001$, $p < 0.001$, $p < 0.001$, respectively). The knowledge levels of the participants by the groups are summarized in Table 4.

Attitudes towards epilepsy and epileptic individual

The students gave the most positive responses to the questions "it would be embarrassing to have a family member with epilepsy (disagree or completely disagree = 97.9%)" and "it is a shame to have epilepsy (disagree or completely disagree = 97.0%)". However, the least positive attitude response was answered to the questions "I would date someone with epilepsy (completely agree or agree = 46.4%)" and "I would marry someone with epilepsy (completely agree or agree = 47.4%)". All questions evaluating students' attitudes towards epilepsy are presented in Table 3.

The participants' attitude score towards epilepsy and an epilepsy person was calculated as 23.54 ± 6.40 (14.0-50.0). The score of attitude towards epilepsy was lower in those who read scientific publications ($p < 0.001$). However, no difference was observed between the attitude scores according to the source of the scientific publication read ($p = 0.625$). The score was lower in the female gender ($p = 0.033$). No difference was found between living environment and epilepsy attitude score level ($p = 0.488$). Attitude score levels towards an epileptic person differed between education departments ($p = 0.042$). When the education departments were compared in pairs, it was determined that this difference was due to the higher attitude scores of the participants in the healthcare management department than in other departments ($p < 0.05$). Attitude scores towards epilepsy were lower in groups with higher years of university education, and with clinical internships ($p < 0.001$). Attitude towards epilepsy score level was found to be lower in participants who also had a history of syncope, witnessed a seizure-syncope event, or had a history of epilepsy in first and/or second-degree family members ($p = 0.007$, $p < 0.001$, $p = 0.006$, $p < 0.001$, respectively). Attitude levels of the participants towards epilepsy and an epileptic person according to the groups are listed in Table 4.

DISCUSSION

As far as can be determined, this is the first study to evaluate the knowledge and attitudes of students in many departments of the faculty of health sciences regarding epilepsy. 5% of the students in our study had epilepsy in first-degree relatives and 11.9% in second-degree relatives. 29.7% of the students witnessed a seizure-syncope event. These rates were lower (40-88%) than in previous studies.[11-13] However, in a study evaluating medical school students in Turkey, approximately 4 out of 10 students stated that they either knew someone with epilepsy or witnessed a seizure.[8] The affinity of these results with our current ones could be explained by social, cultural, and regional variables. The majority of people with epilepsy are limited to participating in social activities, and epileptic individuals tend to hide their identities. This determination of the results can be explained by these variables. The present

Table 3: Responses of students to questions on attitudes towards epilepsy

Question Attitude items	Total	Male	Female	p	Pre-clinic	Clinic	p
If I had epilepsy, I would hide it from my friends. (Disagree or completely disagree)	86.3	81.9	86.9	0.130	85.9	86.8	0.712
I would stay away from a friend if I knew she/he had epilepsy. (Disagree or completely disagree)	96.1	93.7	96.4	0.143	96.0	96.2	0.871
I would date someone who has epilepsy. (Agree or completely agree)	46.4	52.8	45.5	0.129	44.3	49.4	0.111
I would object to working with someone who has epilepsy. (Disagree or completely disagree)	93.9	90.6	94.4	0.109	93.1	95.1	0.232
I would be embarrassed if someone in my family had epilepsy. (Disagree or completely disagree)	97.9	95.3	98.3	**0.037**	98.0	97.9	1.000
I would object to the marriage of my child to someone who has epilepsy. (Disagree or completely disagree)	73.2	77.2	72.6	0.335	72.4	74.4	0.519
I would marry someone who has epilepsy (Agree or completely agree)	47.4	55.9	46.2	**0.046**	46.1	49.2	0.341
I would not trust a doctor with epilepsy if I knew of his / her illness. (Disagree or completely disagree)	80.9	74.0	81.8	0.041	79.3	83.1	0.146
I prefer to stay away from someone with epilepsy. (Disagree or completely disagree)	94.2	90.6	94.7	0.067	93.4	95.3	0.224
Having epilepsy is something to be embarrassed about. (Disagree or completely disagree)	97.0	92.9	97.5	**0.010**	96.8	97.2	0.854
I feel uncomfortable working with someone who has epilepsy. (Disagree or completely disagree)	93.4	92.1	93.6	0.564	91.9	95.5	**0.021**
I feel comfortable with someone who has epilepsy. (Agree or completely agree)	55.9	50.4	56.7	0.183	51.9	61.6	**0.002**
I think patients with epilepsy are frightening. (Disagree or completely disagree)	96.6	96.1	96.6	0.793	95.8	97.6	0.119
I think people with epilepsy are not physically attractive. (Disagree or completely disagree)	88.5	79.5	89.8	**0.002**	86.7	91.1	**0.036**

***p < 0.001**

study also demonstrated that clinical students had a higher level of knowledge about epilepsy. This situation may be related to education level, clinical students' spending more time with patients than their preclinical peers, and the high probability of hearing or reading information about epilepsy because the rate of seeing individuals with seizures in clinical students was 36.7% and 24.7% in preclinical students.

Less than half of the students in our current study obtained information about epilepsy from websites (47.9%) and less than a quarter from textbooks (23.9%). Although they are educated in the field of health, this finding indicates that formal education on epilepsy is not sufficient. It is also demonstrated that the need for formal education on epilepsy at all educational levels, especially in health sciences. A previous study performed with medical school students stated that less than half of the students obtained their epilepsy knowledge mainly from medical textbooks or professional medical resources.[8] In the current study, the level of knowledge was higher in female participants and the midwifery department. The higher level of knowledge in the midwifery department was considered because it is a clinical branch. A study in which the level of epilepsy knowledge was evaluated socially and 613 participants were included revealed that the item with the least correct answer was related to epilepsy treatment. The role of surgery in the treatment of epilepsy is the least known subject in social studies and our current study.[9] Also, most items in the knowledge scale were significantly

Table 4: Knowledge and attitude scores according to groups

	Knowledge about epilepsy	**p**	**Attitude toward epilepsy**	**p**
Gender				
Female	9.38 ± 3.60 (2-16)	**0.045**	23.36 ± 6.33 (14-50)	**0.033**
Male	8.62 ± 3.78 (2-16)		24.74 ± 6.80 (14-42)	
Department				
Healthcare management	8.33 ± 3.71 (2-16)	**0.001***	24.77 ± 6.73 (14-43)	**0.042**
Child development	9.23 ± 3.89 (2-16)		23.08 ± 6.43 (14-50)	
Social services	8.38 ± 3.64 (2-15)		22.64 ± 5.54 (14-35)	
Midwifery	11.32 ± 3.48 (2-16)		22.84 ± 6.74 (14-45)	
Nutrition and dietetics	9.78 ± 3.14 (2-16)		23.45 ± 6.14 (14-42)	
Emergency and disaster management	9.83 ± 3.34 (2-16)		23.12 ± 6.36 (14-42)	
Audiology	9.19 ± 3.48 (2-15)		24.19 ± 5.95 (14-45)	
Physical therapy and rehabilitation	8.88 ± 3.34 (2-16)		23.10 ± 6.80 (14-42)	
Grade				
Preclinical (1-2 years)	8.58 ± 3.66 (2-16)	**0.001***	24.01 ± 6.47 (14-45)	**0.005**
Clinical (3-4 years)	10.27 ± 3.35 (2-16)		22.87 ± 6.25 (14-50)	
Marital status				
Married	9.92 ± 4.00 (2-16)	**0.045**	25.24 ± 7.43 (14-50)	0.053
Single	9.27 ± 3.62 (2-16)		23.49 ± 6.37 (14-45)	
Have you read scientific or academic documents about epilepsy?				
Yes	11.52 ± 2.79 (2-16)	**0.001***	21.88 ± 5.68 (14-39)	**0.001***
No	8.44 ± 3.55 (2-16)		24.16 ± 6.65 (14-50)	
Do you have a history of syncope or seizure attacks?				
Yes	10.29 ± 3.40 (2-16)	**0.008**	21.94 ± 6.45 (14-41)	**0.007**
No	9.19 ± 3.64 (2-16)		23.68 ± 6.38 (14-50)	
Have you ever witnessed a seizure or syncope attack?				
Yes	10.81 ± 2.87 (2-16)	**0.001***	21.72 ± 5.42 (14-45)	**0.001***
No	8.64 ± 3.73 (2-16)		24.30 ± 6.63 (14-50)	
Do you know someone with epilepsy in a first-degree relative?				
Yes	10.94 ± 3.48 (2-16)	**0.001***	21.27 ± 5.61 (14-37)	**0.006**
No	9.20 ± 3.62 (2-16)		23.65 ± 6.42 (14-50)	
Do you know someone with epilepsy in a second-degree relative?	10.42 ± 3.07 (2-16)	**0.001***	21.79 ± 5.86 (14-45)	**0.001***
Yes	9.13 ± 3.67 (2-16)		23.77 ± 6.44 (14-50)	
No				

***p < 0.001**

**** Higher scores on the knowledge scale represent a better knowledge of epilepsy**

***** Lower scores on the attitude scale represent a more positive attitude towards epilepsy**

better in subjects with clinical exposure compared to preclinical subjects. However, there is no difference between these two groups on the question "Brain surgery can be used to treat epilepsy in some cases." As in the general public, the level of knowledge about epilepsy surgery is insufficient among healthcare workers. Social and academic information programs about epilepsy treatment should be organized. Similarly, it is one of the most well-known issues that epilepsy patients can be as successful as other people in their business life in social studies.[9] In the current study, the most frequently correctly answered question with a rate of 79.2% was that epilepsy patients could be at least as successful as other people in their business life. In social studies, about half of the participants stated that factors such as insufficient sleep, stress, and alcohol might increase the likelihood of having a seizure.[9] Our current study determined that approximately 4 out of 5 participants had correct information on this subject. This result can be explained by the fact that the participants received health education on preventive medicine.

A study including medical school students regarding attitudes towards epilepsy indicated that a positive attitude was determined in matters other than marriage. 28.2% of medical students stated that they agreed to date with someone with epilepsy.[8] It was observed that the attitudes of medical students and the general public towards epilepsy in Turkey are similar.[8,14,15] In our current study, the least frequent positive attitudes were on dating and marriage with an epileptic person. While less than half of the participants reported a positive answer, 45.6% did not want to express their opinions about dating and 42.6% about marriage, respectively. These results showed that the most negative attitudes among Turkish health sciences students were about marriage and dating.

Participants with a higher education level have a more positive attitude towards epilepsy and an epileptic person. The literature review demonstrated in many studies that the level of education increases with the level of positive attitude.[8,16-18] Previous studies have confirmed that as participants' knowledge levels increase, they demonstrate a more positive attitude towards an epileptic individual.[19,20] With the results of this study, we think that an increase in the education level of the participants may result in an increase as well in their knowledge about epilepsy, which may positively affect their attitudes towards epilepsy.

Our current study determined that participants who knew someone with epilepsy or epileptic seizures had a more positive attitude towards epilepsy than those who did not. The most negative attitude was observed in the students of the health method department. This situation can be explained by the lack of knowledge about epilepsy, the lack of a clinical department, and the low potential to witness a seizure. Participants who witnessed a person having an epileptic seizure had a more positive attitude towards epilepsy than those who did not. The study of Kıyak and Dayapoğlu[19] indicated that participants who knew a person with epilepsy and witnessed an epileptic seizure had a more positive attitude towards epilepsy and an epileptic individual. Similarly, in a study performed in northwest Turkey, people who knew someone with epilepsy showed a more positive attitude towards epilepsy.[21] Similar results were found in studies including hospital staff and nurses.[22,23] Also, a study of 8th-10th grade students in Germany found that students enrolled in a school near a special epilepsy center had a more positive attitude towards epilepsy.[24] Being familiar with epilepsy has been shown to positively affect attitudes towards epilepsy.[14] Our current study revealed that knowing a person with epileptic seizures and having more accurate information positively affects attitudes towards epilepsy.

There are some limitations to consider when interpreting the results of this study. The first one is that the study was performed on health science students at a single university. This situation prevents us from evaluating regional differences. We would also like to include more questions regarding the nature of first aid response, the extent of religious beliefs, sources of information, attitudes, and perceptions specifically about epilepsy, but we tried to keep the survey length manageable. The reliability of the data is limited to the accuracy of the answers given by the research participants. The last, more than 87.5% of the participants were female. Female participants were over-represented in this study.

In conclusion, to our knowledge, this study is the first to investigate the knowledge and attitudes of health science students about epilepsy in Turkey. Although most of the students had a high level of epilepsy knowledge, it was determined that they had negative attitudes toward dating and marriage, especially with epileptic individuals. Clinical students had more accurate knowledge and positive attitudes than preclinical students, so it was determined that the level of knowledge and positive attitude increased significantly with the duration of education, the status of familiarity

with the disease, and epileptic seizures. Besides, it was found that female subjects, those who have a relative with epilepsy, those who have more knowledge about epilepsy, and those who have experienced or witnessed seizures/syncope have more positive attitudes towards epilepsy.

DISCLOSURE

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