

Evaluation of midwifery students' health fatalism, knowledge, and attitudes toward patients with epilepsy in Eastern Turkey

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Abstract

Objective: This study was conducted to determine the relationship between midwifery students' health fatalism, epilepsy knowledge, attitudes, and some sociodemographic variables. **Methods:** The descriptive cross-sectional study was conducted with 270 midwifery department students who were studying at a state university and who agreed to participate in the study in eastern Turkey during the 2021–2022 academic year. The data were collected using a Sociodemographic Information Form, the Health Fatalism Scale (HFS), the Epilepsy Knowledge Scale (EKS), and the Epilepsy Attitude Scale (EAS). **Results:** The midwifery students had total mean scores of 49.69 ± 13.25 , 7.71 ± 3.69 , and 54.87 ± 8.13 for the HFS, EKS, and EAS, respectively. It was found that those who had social contact with epilepsy patients had significantly higher EKS and EAS scores, but no correlation with HFS. **Conclusion:** The study of midwifery students in Eastern Turkey shows that close contact with epilepsy patients is associated with better knowledge of and attitude to epilepsy, although the high health fatalism remains.

Keywords: Health fatalism, epilepsy knowledge, epilepsy attitudes, midwifery student

INTRODUCTION

Fatalism refers to a wide variety of beliefs, ideas, and concepts that appear to have a significant impact on the health behaviours of individuals from a diversity of backgrounds.¹ The low likelihood of changing events and situations that are associated with fatalism affects self-efficacy since expectations of success decrease with the belief in limited control. Individuals who attribute their health to fate perceive health to be beyond their control and instead attribute it to luck, fate, or God.² Health fatalism refers to the belief that the individual's health status is not under their control but is predetermined by a higher power. A belief in fatalism will strongly affect the individual's attitudes and behaviours. Since acceptance of fatalism expresses itself in submissiveness, it generally affects entrepreneurial activities negatively. Since the probability of changing events and situations is low in fatalism, self-efficacy and expectations of success are limited. An individual with a high level of health fatalism will perceive his or her health as dependent on

fate or God.^{3,4} However, a religious belief can be a helpful resource in mental and physical health and is potentially integrative. Religious beliefs can help patients relax emotionally; they can aid recovery and provide support for coping.⁵

Fatalism is widespread in Turkish society because Islam, the principal religious belief, supports fatalism.⁶ Believing in fate is one of the six pillars of Islam. In addition to having a significant place in the Islamic faith, fatalism means that God knows, sees, and manages everything and that nothing can happen outside God's will.⁷ Religious beliefs play an important role in individuals' attitudes and behaviours toward health and disease.⁸

Epilepsy is a group of disorders characterized by recurrent seizures that occur as a result of abnormally sudden discharge of cortical neurons.⁹ Epilepsy is one of the common chronic neurologic conditions, estimated to affect almost 70 million people worldwide. The prevalence is similar in females and males (46.2 per 100,000 compared to 50.7 per 100,000).¹⁰ Approximately 12.5-15 million women of childbearing age worldwide

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have epilepsy.^{11,12} In fact, epilepsy is one of the most common neurologic disorders that usually requires continuous treatment throughout pregnancy. A plan for epilepsy management during pregnancy should be established for women with epilepsy. Patients often have many concerns, including fear of worsening seizures, the possibility of adverse medication effects on their foetus, and potential complications during childbirth.¹⁰ Neurologists alone may not have the information needed to counsel their female patients who desire pregnancy and whether they are as likely to achieve pregnancy and to have a live birth as their peers.¹¹ In this case, a pregnant woman with epilepsy should be followed up with a multidisciplinary approach by an obstetrician, neurologist and midwife.

Society's negative attitudes such as prejudice, social stigma and discrimination against individuals with epilepsy cause more harm to individuals with epilepsy than the disease.^{13,14} These attitudes can cause the individual to distance himself from health professionals and other people.¹⁴⁻¹⁶ Better communication between health professionals, patients and their families is thus very important in combating society's negative prejudice about epilepsy.¹⁷ In previous studies, it has been determined that there are deficiencies in the communication between the health personnel, the patient and the family in the services for the care of the epilepsy patient.^{17,18}

The health of a woman with epilepsy and a pregnant woman is an issue of serious importance. Risk factors for morbidity and mortality in mothers with epilepsy are usually determined long before pregnancy occurs. Therefore, midwives should follow up on women with epilepsy starting from the preconception period. About the use of an effective contraceptive method, the points to be considered if pregnancy occurs, the use of supplemental vitamins such as folic acid, the regular use of drugs to be used against the risk of seizures, the routine care, and follow-ups of pregnancy, where and by whom the birth will take place, and the health and care of the newborn. midwives and midwifery students should inform women. To provide more effective and quality healthcare services to individuals with epilepsy, it is important to know midwifery students' understanding of fatalism in health, their knowledge and attitude levels about epilepsy and the affecting factors. A study¹⁹ has evaluated the knowledge and attitudes of midwifery students toward epilepsy but no study considers the health fatalism of midwifery students who care

for epilepsy patients, neither in Turkey nor in any other country. Additionally, no studies have examined the relationship between midwifery students' health fatalism, their knowledge about epilepsy, and their attitudes toward patients with epilepsy. This study aims to determine the relationship of midwifery students' belief in health fatalism with epilepsy knowledge and attitude levels and some socio-demographic variables.

METHODS

This study was a descriptive, cross-sectional study.

The sample of the study consisted of 270 midwifery students who agreed to participate in the study. The study population of the research consist of all midwifery students (N=369) studying at the Faculty of Health Sciences of a University in eastern Turkey for the 2021-2022 academic year. Based on the percentage measurement values of the methods to be studied in the literature review, the total sample size was calculated as n=250, with an effect size of 0.1858, a power of 95%, and a margin of error of 0.05, using the G-POWER program.

Data collection instruments

The data were collected using a Sociodemographic Information Form the Health Fatalism Scale (HFS), the Epilepsy Knowledge Scale (EKS), and the Epilepsy Attitude Scale (EAS).

Sociodemographic information form

The form prepared by the researchers includes eight questions as the midwifery's age, gender, year of study, marital status, place of residence, state of having a chronic disease, state of having a patient with epilepsy around, and the state of relation to patients with epilepsy.

Health fatalism scale

The HFS developed by Franklin, Schlundt, and Wallson⁴ was used as the data collection instrument. The scale aims to identify whether general health fatalism is associated with health behaviours and to help eliminate cognitive barriers to health behaviours, health services, and healthy life practices. The Turkish version of the scale consists of a single dimension and 17 items. The minimum possible score on the scale is 17, and the maximum possible score is 85. Fatalism increases as the scale score increases. In their Turkish validity and reliability study, which underpinned the scale, Bobov and Çapık reported

a Cronbach's alpha coefficient of 0.91.⁵ In the present study, the Cronbach's alpha coefficient for the HFS was 0.92.

Epilepsy Knowledge Scale

The EKS was developed by Aydemir in 2008 to measure the epilepsy knowledge of Turkish society.²⁰ The scale contains 16 questions, each of which has 3 Likert-type answer options: "correct," "incorrect," and "don't know." The option "correct" is assigned 1 point, whereas the other two options are assigned 0 points. The scale score varies between 0 and 16, and epilepsy knowledge increases as the score increases. One study, using the Kuder-Richardson coefficient, found the reliability of the EKS to be 0.72.²⁰ In the present study, the EKS Cronbach's alpha coefficient was 0.80.

Epilepsy Attitude Scale

The EAS, which was developed by Aydemir²⁰ to measure the attitudes of Turkish society toward epilepsy, consists of 14 questions. The Likert-type scale has five answer options: totally agree (5), agree (4), no idea (3), disagree (2), and totally disagree (1). The total score for the scale varies between 14 and 70, and positive attitudes toward epilepsy increase as the score increases. One study found the Cronbach's alpha coefficient for the EAS to be 0.84.²⁰ In the present study, the Cronbach's alpha coefficient was 0.85.

Data collection

In the 2021-2022 academic year, 369 midwifery students studying at the Faculty of Health Sciences were asked to fill in the data collection forms prepared with the Google Docs program by sending them online (via e-mail, WhatsApp). In the submitted form, there was a question for the declaration of voluntary consent. Those who volunteered to participate in the study were asked to fill out the forms. Of the students, 99 (27%) did not agree to participate in the research. A total of 270 (73%) midwifery students who responded to the questionnaires were included in the study.

Data analysis

In the evaluation of the data obtained from the study, number and percentage, mean and standard deviation were used. For the analysis of the dependent variables of the study, HFS, EKS and EAS, according to binary independent variables, t-test was used in independent groups

and Mann Whitney U test was used according to more than two independent variables. Dunnett-C test was performed to determine the differences. The relationship between age, HFS, EKS, and EAS was analyzed with the Pearson correlation test. The results obtained were evaluated at a 95% confidence interval and 5% significance level.

Ethical considerations of the study

Permission was obtained from the Non-Interventional Research Ethics Committee of a university (dated 10.02.2022 and with number 2022/02-54) to conduct the research. Online consent was obtained from the students who participated in the study. This study was carried out by the ethical standards of the Declaration of Helsinki. Volunteer participants were included in the study and their personal identity information was kept confidential.

RESULTS

The average age of the students participating in the research was 20.79 ± 1.7 (min-max: 18-36), 32.2% of them were in the 3rd grade, 97% of them were single, and 68.1% of them lived in the city centre. 5.2% of the students had a chronic disease, 19.6% of them had epilepsy around them, and 58.5% of these patients were relatives (Table 1).

In Table 2, the total scores of the students in HFS, EKS and EAS are given. The total mean score of HFS was 49.69 ± 13.25 , the mean total score of EKS was 7.71 ± 3.69 , and the mean total score of EAS was 54.87 ± 8.13 .

Table 3 shows the correlation analysis of the scales used. As a result of the analysis, no statistically significant relationship was found between the scales ($p > 0.05$).

A comparison of the mean scores of HFS, EKS and EAS according to the demographic and clinical characteristics of the students is presented in Table 4. EKS differed statistically significantly according to classes ($p = .006$). The Dunnett-C advanced analysis showed that the EKS scores of the second and fourth-year students were higher than those of the first- and third-year students.

It was found that those who had epilepsy in their environment had higher EKS and EAS scores, and the difference was statistically significant ($p = 0.000$, $p = 0.004$) (Table 4).

DISCUSSION

In many parts of the world, epilepsy continues to be perceived by many as a supernatural,

Table 1: Demographic characteristics and clinical information of students

Age		<i>Mean ± SD</i>	<i>Min-Max (Median)</i>
		20.79±1.7	18-36 (20)
		n	%
Year of study	1st year	77	28.5
	2nd year	78	28.9
	3rd year	87	32.2
	4th year	28	10.4
Marital status	Married	8	3.0
	Single	262	97.0
Place of residence	City	184	68.1
	Town	59	21.9
	Village	27	10.0
Presence of chronic disease	Yes	14	5.2
	No	256	94.8
Having social contact with an epilepsy patient	Yes	53	19.6
	No	217	80.4
Relation to the individual with epilepsy	Friend	22	41.5
	Relative	31	58.5

Table 2: Total mean scores of the scales used

	Mean ± Sd	Min-Max (Median)	Range of scores
Health Fatalism Scale	49.69±13.25	17-85 (50)	17-85
Epilepsy Knowledge Scale	7.71±3.69	0-16 (8)	0-16
Epilepsy Attitude Scale	54,87±8.13	21-70 (57)	14-70

Table 3: HFS, EKS, and EAS Scale Correlation Analysis

		Health Fatalism Scale	Epilepsy Knowledge Scale	Epilepsy Attitude Scale
Health Fatalism Scale	r	1	-0.047	0.033
	p	.	0.437	0.586
Epilepsy Knowledge Scale	r	0.033	1	0.080
	p	0.586	.	0.192
Epilepsy Attitude Scale	r	0.033	0.080	1
	p	0.586	0.192	.

*Pearson Correlation *p<0.05* HFS: Health Fatalism Scale, EKS: Epilepsy Knowledge Scale, EAS: Epilepsy Attitude Scale.

Table 4: Comparison of mean HFS, EKS and EAS scores in terms of students' demographic and clinical characteristics

		Health Fatalism Scale		Epilepsy Knowledge Scale		Epilepsy Attitude Scale	
Age	r	0.034		0.058		-0.045	
	p	0.576		0.343		0.464	
		<i>Mean ± Sd</i>	<i>p</i>	<i>Mean ± Sd</i>	<i>p</i>	<i>Mean ± Sd</i>	<i>p</i>
Year of study	1 st year	49.35±12.74	0.832	7.29±3.69	0.006*	55.36±7.30	0.579
	2 nd year	48.84±12.93		8.67±3.58		53.89±9.84	
	3 rd year	50.70±14.40		6.90±3.84		54.16±8.27	
	4 th year	49.69±12.18		8.64±2.72		56.035±4.45	
Marital status	Married	45.75±6.13	0.394	9.58±3.16	0.165	50.75±9.30	0.146
	Single	49.81±13.39		7.65±3.69		55.00±8.08	
Place of residence	City	49.75±12.96	0.353	7.66±3.78	0.937	54.47±8.48	0.347
	Town	48.18±14.39		7.86±3.61		56.23±7.40	
	Village	52.42±12.54		7.66±3.35		54.59±7.04	
Presence of chronic disease	Yes	45.85±14.42	0.266	8.57±2.68	0.371	54.71±11.13	0.940
	No	49.90±13.18		7.66±3.73		54.88±7.96	
Status of being an epilepsy patient around	Yes	47.84±13.78	0.258	9.52±2.18	0.000*	57.77±6.86	0.004*
	No	50.14±13.11		7.26±3.84		54.16±8.27	
Relation to the individual with epilepsy	Friend	51.77±15.72	0.081	9.18±2.06	0.335	57.45±8.93	0.779
	Relative	45.06±11.70		9.77±2.26		58.00±5.05	

* $p < 0.05$, Pearson; ** $p < 0.05$, HFS: Health Fatalism Scale, EKS: Epilepsy Knowledge Scale, EAS: Epilepsy Attitude Scale.

contagious, and shameful disease. This situation limits individuals' search for appropriate care, and patients often delay their treatment by hiding themselves because they think they will be stigmatized.¹⁹ The findings of the study were evaluated in line with the literature.

In this study, it was observed that the students had a high level of health fatalism tendencies. Since there is no study in the literature on the health fatalism of midwifery students for patients with epilepsy, the results of this study were discussed in relation to studies conducted in different groups. Turan *et al.*² found that the fatalism tendencies of the students were moderate in their study with nursing students from Elazığ province in eastern Turkey. Ghahramanian *et al.*²¹ found a low level of health fatalism in women who came to the health centre to screen for breast cancer in Tabriz, Iran. It is an expected

result that levels of health fatalism are different in studies conducted in different groups and cultures. Because the concept of fatalism is influenced by religion and culture. In the study conducted by Kiyak *et al.*⁸, in which they evaluated the relationship between epilepsy attitude and health fatalism towards healthy individuals in the northeast of Turkey, they found that individuals have high levels of health fatalism. Fatalism is a very common way of thinking in Turkey. In an international comparative study conducted by Çarkoğlu and Kalaycıoğlu²², they found that almost half of the people in Turkey believe that there is very little they can do to change their own lives. The fatalist approach is an important factor that affects attitudes and behaviours towards early diagnosis.^{22,23} It is thought that a high level of fatalism will negatively affect the application to health services and the provision

of health services. For this reason, evaluation of students' fatalism perceptions by midwife/nurse educators and planning education programs considering students' fatalism perceptions may be important to create a change in positive attitudes and behaviours among students.

In this study, it was determined that the epilepsy knowledge level of the students was low. As a result of the literature review, it was found that the epilepsy knowledge levels of the students studying in different health disciplines at universities in different countries were generally medium and low. While a few studies found that students' epilepsy knowledge levels were low^{2,24,25}, whereas Akça *et al.*²⁶ and Guzel *et al.*²⁷ found that the level of epilepsy knowledge was high among the medical and health sciences students. Studies showing similarities and differences with the results of the research are remarkable. It can be thought that this situation arises from the curricula and the department, and because they have seen or not seen epilepsy patients socially. In our study, it is seen that individuals who have social contact with epilepsy patients around them have higher epilepsy knowledge scores and more positive attitudes towards epilepsy. Njamnshi *et al.*²⁸ found that students who knew epilepsy patients had higher epilepsy knowledge scores. Similarly, Akça *et al.*²⁶ also found that the knowledge score was high in the group that had an acquaintance with epilepsy. Based on these findings, it is suggested that education on epilepsy in the curriculum of educational institutions that train students in health disciplines should be more comprehensive from the first years.

This study shows students' attitudes towards epilepsy were positive. Unsar *et al.*,²⁵ Turan *et al.*² and Yeni *et al.*²⁴ also reported that the healthcare students had positive attitudes towards epilepsy. Njamnshi *et al.*²⁸ and Shawahna and Jaber⁹ found that nursing students showed positive attitudes towards epilepsy, similar to the findings in this study. The positive attitude towards epilepsy despite low epilepsy knowledge is likely to be related to the humanism foundation of education in the field of health education.

It has been determined that the epilepsy knowledge levels of the students who have social contact with epilepsy patients are better and their epilepsy attitudes are more positive. The difference between the variables is statistically significant. Turan *et al.*² also found that nursing students who have acquaintances with epilepsy had higher epilepsy knowledge scores and more positive attitudes. Shawahna and Jaber⁹ reported in

their study that students who witnessed a patient with an epileptic seizure had higher epilepsy knowledge scores and more positive attitudes. In another study conducted with nursing and laboratory assistant students, it was observed that students who had previously encountered epilepsy cases had higher epilepsy knowledge levels and more positive epilepsy attitudes.²⁸ The results of these studies suggest that students' knowledge and attitudes can improve significantly over time and exposure with frequent encounters with epilepsy patients.

The limitation of the study was that since the research was conducted with midwifery students studying in only one region of Turkey, it cannot be generalized to midwifery students in the whole country. The survey in the research was short to ensure the participants would not get bored.

In conclusion, it was found in a group of midwifery students in Eastern Turkey that the students had a low level of knowledge about epilepsy, while their attitudes towards epilepsy were moderately positive. It was also determined that the students had a high level of health fatalism. In addition, there was no correlation found between students' HFS mean scores and socio-demographic factors, the levels of the students, their EKS score, and their EAS score.

It was also found that caring for a patient with epilepsy, witnessing someone who has an epileptic seizure, and having a relative or friend with epilepsy increase the epilepsy knowledge level and affect their positive attitude development. Thus, exposure to epilepsy may be important in improving students' knowledge levels and attitudes, although the high health fatalism remains. To increase the knowledge level of midwifery students about epilepsy, it is recommended that epilepsy be included in the midwifery curriculum with more detailed content.

DISCLOSURE

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