Stigmatizacija i stereotipizacija oboljelih od epilepsije

/ Stigmatization and Stereotypes in Patients with Epilepsy

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Epilepsija je bolest mozga obilježena spontanim, nepredvidivim i prekomjernim električnim pražnjenjima određenih dijelova mozga ili cijeloga mozga, koji se klinički manifestiraju epileptičkim napadajima. Epileptički napadaji mogu uključivati raznolike simptome i znakove, ovisno o zahvaćenom dijelu mozga. Napad je izrazito traumatičan za pacijenta i okolinu čak i kada se događa rijetko. Jedan od faktora s izrazitim utjecajem na oboljelog je stigmatizacija socijalne okoline. Na stigmatizaciju moramo utjecati kvalitetnijom edukacijom populacije. Cilj edukacije je olakšati život, smanjujući osjećaj nelagode koju napad može prouzročiti, ako se dogodi u javnom okruženju. *Svrha rada:* Dokazati kako je znanje o bolestima važan faktor za smanjenje predrasuda. *Metode:* U ispitivanju je sudjelovalo 80 ispitanika zdravstvenih struka (medicinske sestre/tehničari, farmaceutski tehničar) te 84 ispitanika nezdravstvenih struka (prodavač, frizer, kuhar, konobar). Prema mjestu stanovanja selo/grad raspodjela je 82 ispitanika sa sela i 82 ispitanika s mjestom stanovanja u gradu. Ispitivanje je provedeno anonimnom anketom. *Rezultati:* Za testiranje radnih hipoteza korišten je nezavisni T-test. Rezultati istraživanja pokazali su da veća razina znanja utječe na manju razinu stigmatizacije osoba oboljelih od epilepsije. Potrebno je dodatno educirati opću populaciju, jer to je najbolji način da se smanje predrasude prema većini bolesnika. Također, testirajući drugu radnu hipotezu utvrdili smo da nema značajne razlike između osoba koje žive u urbanim ili ruralnim sredinama. *Zaključak:* Treba naglasiti potrebu kvalitetnije edukacije zdravstvenih djelatnika i opće populacije. Stigmatizacija je povezana s razinom znanja i stoga možemo reći: „Znanjem protiv stigme!" kako za epilepsiju tako i za mnoge druge bolesti kod kojih neznanje uzrokuje socijalnu izolaciju i time produbljuje problematiku pacijentovog stanja.

/ Epilepsy is a brain disease presenting with spontaneous, unpredictable and excessive electric discharges of parts of the brain or the whole brain which are clinically manifested by seizures. Epileptic seizures may include various symptoms and signs, depending on which part of the brain is affected. The seizure is highly traumatic for the patient and his surroundings even when a patient's seizures are rare. One of the major factors which affects patients is constant stigmatization by the society they live in. Stigmatization can only be affected by higher quality of education. The goal of high quality education is to make the life of patients easier by lowering the level of discomfort that the seizure brings if it happens in public. Goal: Demonstrate that knowledge about a disease is a major factor in reducing prejudice and stigmatization. Methods: The study was conducted on 80 medical professionals (nurses, pharmacists) and 84 other professional examinees (sellers, hairdressers, cooks, and waiters). 82 examinees lived in a rural and 82 lived in an urban area. The examination was performed with an anonymous questionnaire. Results: The independent T-test was used to test the hypothesis. The results of the study showed that a higher knowledge level decreases stigmatization, which confirms the necessity of additional education of the general population. This is the best way to lower prejudice towards people suffering from epilepsy. By testing our hypothesis about the effect of the living area on stigmatization we came to the conclusion that there is no significant difference between examinees living in urban and rural areas. Conclusion: It is important to improve the education of medical employees and the general population. Stigmatization is associated with the level of knowledge. That is why we should emphasize the motto: "Knowledge against stigma!" for epilepsy and other diseases which cause social discomfort due to lack of knowledge.

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UVOD

Epilepsija je bolest mozga obilježena spontanim, nepredvidivim i prekomjernim električnim pražnjenjima dijelova ili cijeloga mozga, koji se klinički očituju napadajima koji mogu uključivati raznolike simptome i znakove, ovisno o zahvaćenom dijelu mozga (2). Postoji iznimno velik broj kliničkih oblika epilepsije, ali najjednostavnija podjela prema ICES klasifikaciji iz 1989. je na parcijalne i generalizirane epilepsije (1). Generaliziranu epilepsiju karakterizira široko rasprostranjeno, sinkronizirano izbijanje neurona obje hemisfere, dok se žarišna (parcijalna, fokalna) epilepsija odnosi na lokalno izbijanje neurona.

Primarno generalizirane epilepsije karakterizira potpuni gubitak svijesti različitog trajanja. Dijelimo ih na veliki i mali epileptički napadaj. **Veliki epileptički napadaj** (grand mal) karakteriziran je pojavom toničkih i/ili kloničkih grčeva, a uobičajeno ga prati i potpuni gubitak svijesti. Najčešće napadaj nastupa bez predznaka, no kod manjeg broja bolesnika samoj ataci prethodi neki predznak, tzv. aura (primjerice – trnci u nekom dijelu tijela, smetnje govora). Bolesnik se obično iznenada ruši, a zatim nastupa spazam svih mišića na tijelu. Nerijetko možemo čuti i krik koji nastupa zbog spazma laringealne muskulature. Zbog spazma muskulature dolazi do prestanka disanja te bolesnik postaje cijanotičan. Nerijetko dolazi i do inkontinencije urina ili stolice. Poslije *toničke faze* nastupa *klonička faza*. Prvo se javlja tremor kao posljedica umora mišića

INTRODUCTION

Epilepsy is a brain disorder presenting with spontaneous, unpredictable, and excessive electric discharge of certain parts of the brain or the entire brain which clinically manifest in seizures that may include various symptoms and signs depending on the affected part of the brain (2). There is a large variety of clinical forms of epilepsy, but the simplest classification is by ICES from 1989 into partial and generalized epilepsy (1). Generalized epilepsy is characterized by a widespread, synchronized outbreak of neurons in both hemispheres, while partial (focal) epilepsy refers to a local outbreak of neurons.

Primary generalized epilepsy is characterized by a complete loss of consciousness of varying durations. This type of epilepsy has two basic types of seizures: tonic-clonic and absence. **Tonic-clonic (grand mal) seizure** is characterized by a complete loss of consciousness and tonic and/or clonic muscle spasms. The seizure most commonly occurs without any signs, but in a small number of patients the seizure is preceded by a sign, the so-called aura (for example – tingling in some part of the body, speech difficulties). The patient suddenly collapses and then all muscles of the body go into a spasm. We can often hear a cry due to spasm of the laryngeal muscles. Respiratory failure occurs due to muscle spasm and the patient becomes cyanotic. Urine and stool incontinence often occur. The clonic phase occurs after the tonic phase. In the tonic phase, tremors first appear as a result of muscle fatigue, followed by clon-

u toničkoj fazi te nastupaju klonički grčevi (ritmične kontrakcije svih mišića tijela). Prigodom kloničkih grčeva prisutna je i hipersalivacija te se zbog kontrakcija masetera stvara pjena (primjesa krvi u slučaju ugriza jezika). Na kraju nastupa *postiktalna faza* tijekom koje se konvulzije smiruju i bolesnik zapada u duboku komu. Zatim se, postupno preko svih stupnjeva kvantitativnog poremećaja svijesti, budi. Najčešće se napadaja ne sjećaju, umorni su i zbunjeni te nakon nekog vremena utonu u normalan san (3).

Mali epileptički napadaji javljaju se ponajprije u djetinjstvu ili prije puberteta, a samo iznimno u odrasloj dobi. I ovdje je riječ o primarno generaliziranoj epilepsiji koju od početka prati gubitak svijesti (3). Najčešće se manifestiraju kao *odsutnost svijesti* (apsans) u kojima bolesnik nakratko gubi kontakt s okolinom, zagleda se u jednu točku, no nakon toga nastavlja započetu aktivnost. Napadaji traju 10 – 20 sekundi i dolaze u serijama tijekom dana. Ponekad su praćeni motornim fenomenima (treptanje), ali traju prekratko da bi za posljedicu imali gubitak mišićnog tonusa.

Žarišna (parcijalna) epilepsija posljedica je abnormalnih električnih izbijanja u lokaliziranom području mozga. Kliničke značajke ovih napadaja su varijabilne, ovisno o moždanoj regiji u kojoj se izbijanje javlja (3). Svijest tokom parcijalnog napadaja može biti očuvana (jednostavni parcijalni napad) ili narušena (kompleksni parcijalni napad) (2). Parcijalni epileptički napadaji ponekad mogu poprimiti i karakteristike velikog epileptičkog napadaja i tada govorimo o sekundarno generaliziranom epileptičkom napadaju (3). **Jednostavni parcijalni napad** manifestira se najčešće u obliku motornih ili senzornih ataka, ovisno o zahvaćenoj regiji. Obično je riječ o izoliranim grčevima (klonizmima) neke mišićne skupine ili ponavljanim osjetnim senzacijama (trnjenje, bol) u nekom dijelu tijela. Kod **kompleksnog parcijalnog napadaja,**

ic cramps (rhythmic contractions of all body muscles). Hyper-alkalinization is also present during clonic cramps, and the contraction of the masseter causes foaming (blood in the case of tongue biting). The postpartum stage comes last, during which the convulsions calm down and the patient falls into a deep coma. Then, gradually, through all stages of quantitative disturbances of consciousness, the patient wakes up. Most often the patient does not remember the seizure, is tired and confused, and after some time falls into normal sleep (3).

Absence (petit mal) seizures occur primarily in childhood or before puberty and only exceptionally in adulthood. This type of seizure is also primary generalized epilepsy which is accompanied by the loss of consciousness from the beginning (3). The most common manifestations of this type are absences of consciousness in which the patient briefly loses contact with the environment, stares at one point, but then continues the activity. The seizures last from 10 to 20 seconds and come in a series during the day. Sometimes they are accompanied by motor phenomena (blinking) but are too short to result in a loss of muscle tone.

Focal (partial) epilepsy is a consequence of abnormal electrical activity in a localized part of the brain. Clinical features of these types of seizures are variable, depending on the cerebral region in which the discharge occurs (3). During partial seizures, consciousness can be preserved (simple partial seizures) or deteriorated (complex partial seizures) (2). Partial epileptic seizures can sometimes take on characteristics of a major epileptic seizure, and we refer to such cases as generalized epileptic seizures (3). Depending on the affected region, a **simple partial seizure** mostly presents in the form of motor or sensory attack. It generally involves isolated spasms (cloning) of some muscle group or a repeated sensation (tingling, pain) in some part of the body. In **complex partial seizures**, in addition to the altered state of conscious-

uz promjene stanja svijesti, često se opažaju i neki motorički fenomeni (automatizmi, nesvrhovite radnje) koji najčešće zahvaćaju mimično–žvačnu muskulaturu (mljackanje, žvakanje).

Prema Europskoj deklaraciji o epilepsiji iz 2011. godine smatra se da u Europi oko 6 milijuna ljudi ima epilepsiju, a novo dijagnosticiranih slučajeva svake godine ima oko 300 tisuća. Ako se primijene slični epidemiološki kriteriji, u Hrvatskoj epilepsiju ima oko 45 000 ljudi od kojih je 15 000 mlađe od 18 godina (5).

Sam epileptički napadaj izrazito je traumatičan za pacijenta i okolinu, čak i ako se rijetko događa, uzrokuje niz problema za oboljelog. Često se zaboravlja koliko osobe s epilepsijom pate i izvan napadaja. Jedan od faktora koji utječe na oboljelog je stigmatizacija socijalne okoline sa svim negativnim posljedicama. Najteži dio života s epilepsijom je nošenje s reakcijama okoline. Primarni cilj terapije pacijenta je stvoriti i pozitivno stajalište.

Stigma je negativan pogled društva prema pojedincu zbog krivog shvaćanja bolesti (10). Krivo shvaćanje bolesti nastaje iz neznanja i stvara predrasude. Društvena stigma je osjećaj manje vrijednosti koji se manifestira u kontaktu s drugima. Stigmatizacija može dovesti do poremećaja ponašanja kod kuće i u školi, razviti osjećaj manje vrijednosti te sklonost tjeskobi i depresiji (5).

U Hrvatskoj djeluje Hrvatska udruga za epilepsiju (HUE) čiji je cilj unaprjeđenje kvalitete života osoba s epilepsijom i njihovih bližnjih te omogućavanje boljeg razumijevanja prirode epilepsije i potreba osoba s epilepsijom. U svrhu navedenog HUE provodi djelatnosti:

- edukacije osoba s epilepsijom, članova njihovih obitelji i šire društvene zajednice o medicinskim i društvenim aspektima epilepsije
- poticanja druženja, razmjena znanja i iskustava osoba s epilepsijom

ness, some motor phenomena (automatisms, obstructive actions) that most often affect the masticatory and mimic muscles (munching, chewing) are commonly observed.

According to the European Declaration on Epilepsy from 2011, it is estimated that around 6 million people in Europe have epilepsy, and there are around 300, 000 newly diagnosed cases each year. If similar epidemiological criteria are applied, there are around 45,000 people with epilepsy in Croatia, of which 15,000 are under 18 years old (5).

The epileptic seizure itself is extremely traumatic for the patient and the environment, even if it is rare, and it causes a number of problems for the patient. It is often forgotten that people with epilepsy suffer from factors other than seizures. One factor that affects the patient is the stigmatization of the social environment with all its negative consequences. The hardest part of living with epilepsy is dealing with the reactions of the environment. The primary goal of patient therapy is to create a positive attitude.

Stigma is a negative attitude of society towards an individual due to the poor understanding of a disease. The poor understanding of a disease arises from ignorance and creates prejudice. Social stigma is a feeling of inferiority, which manifests itself in contact with others. Stigmatization can lead to behavioral disorders at home and in school, developing a sense of inferiority, and a tendency towards anxiety and depression (5).

The Croatian Epilepsy Association (HUE) aims to improve the quality of life of people with epilepsy and their families and facilitate a better understanding of the nature of this disorder and needs of people suffering from it. For this purpose, HUE carries out the following activities:

- Education of people with epilepsy, members of their families and the wider community on the medical and social aspects of epilepsy.
- Encouraging socialization, knowledge exchange, and experiences with patients with epilepsy.

- izdavanja knjiga i brošura, audiovizualnih i elektroničkih materijala koji se bave epilepsijom
- organizacije sastanaka i seminara o različitim medicinskim i socijalnim aspektima epilepsije
- razmjene informacija o društvenoj i medicinskoj skrbi osoba s epilepsijom sa sličnim udrugama u svijetu
- istraživanja socijalnih aspekata epilepsije i suradnje s Hrvatskom ligom protiv epilepsije i međunarodnom organizacijom *International Bureau for Epilepsy* (5).

CILJ

Cilj istraživanja je utvrditi utječe li razina znanja u srednjoj školi Viktorovac na razinu predrasuda o osobama oboljelima od epilepsije između zdravstvenih i nezdravstvenih smjerova. Također, cilj je utvrditi utječe li i mjesto stanovanja na razinu predrasuda.

ISPITANICI I METODE

Ispitivanje je provedeno u razdoblju od 1. travnja 2016. godine do 1. svibnja 2016. godine u srednjoj školi Viktorovac u Sisku. Korištena je anonimna anketa, a za istraživanje je dobivena suglasnost Etičkog povjerenstva srednje škole Viktorovac.

Uzorak

U ispitivanju je sudjelovalo 80 ispitanika zdravstvenih struka (medicinske sestre/tehničari, farmaceutski tehničar) te 84 ispitanika nezdravstvenih struka (prodavač, frizer, kuhar, konobar). Prema mjestu stanovanja selo/grad raspodjela je bila 82 ispitanika sa sela i 82 ispitanika s mjestom stanovanja u gradu.

- Publication of books and brochures, audiovisual and electronic materials on epilepsy.
- Organization of meetings and seminars on various medical and social aspects of epilepsy.
- Exchange of information on social and medical care of patients with epilepsy with similar associations internationally.
- Research on social aspects of epilepsy and cooperation with the Croatian League Against Epilepsy and the International Bureau for Epilepsy (5).

OBJECTIVE

The objective of this study was to determine whether the level of knowledge of medical students and students of other courses at the Viktorovac secondary school affects the level of prejudice toward people suffering from epilepsy. The objective was also to determine whether the place of residence affects the level of prejudice.

PARTICIPANTS AND METHODS

The survey was conducted in the period from April 1st, 2016 to May 1st, 2016 at the Viktorovac Secondary School in Sisak. An anonymous questionnaire was used, and the study was conducted after the approval from the Ethics Committee of the Viktorovac Secondary School.

Sample

The survey included 80 students of medical (nurses/technicians, pharmaceutical technicians) and 84 students of other courses (sales assistant, hairdresser, cook, waiter). According to the place of residence, 82 participants were from the rural area and 82 from the city.

Instrument

Kao instrument istraživanja korištena je anketa koja se sastojala od 23 pitanja, a možemo ju podijeliti na 4 dijela prema vrsti prikupljenih podataka.

1. Opći sociodemografski podatci ispitanika
2. Pitanja 1-4 – susretanje s epilepsijom
3. Pitanja 5-10 – opća znanja i razumijevanje epilepsije. Pitanja su bodovana jednim bodom za točan odgovor, osim pitanja 8, gdje je bilo više točnih odgovora pa je postojala i mogućnost 0,5 boda. Maksimalan ostvaren broj bodova bio je 6.
4. Pitanja 11-18 – stavovi o oboljelima od epilepsije koji povremeno dožive epileptički napadaj.

Pitanja 12-17 korištena su u procjeni predrasuda o oboljelima od epilepsije – procjena društvenih predrasuda. U tim pitanjima se koristilo specifično bodovanje, odgovor A-1 bod, B-2 boda, C-3 boda, D-4 boda. Raspon bodova je 6-24 s tim da manja vrijednost označava i manju razinu predrasuda prema oboljelima od epilepsije. 6 bodova – bez predrasuda, 14 bodova – visoka razina predrasuda, 24 boda – maksimalna razina predrasuda.

Upitnik je preuzet iz članka *„A Survey of Public Awareness, Understanding, and Attitudes toward Epilepsy in Greece"* (8) te je preveden i prilagođen potrebama ovog istraživanja. Pri odgovaranju na taj dio upitnika ispitanici su u svrhu istraživanja trebali uzeti u obzir da se radi o osobi, koja povremeno ima epileptički napad, no inače je zdrava.

Instrument

The survey instrument was a questionnaire consisting of 23 questions, divided into four sections according to the type of data collected.

1. General sociodemographic data of the respondents
2. Questions 1-4 – contact with epilepsy
3. Questions 5-10 – general knowledge and understanding of epilepsy. Questions were scored with one point for the correct answer, except for question 8, where there were more correct answers so there was a possibility of scoring 0.5 points. The maximum number of points was 6.
4. Questions 11-18 – attitudes towards patients with epilepsy who occasionally experience epileptic seizures.

Questions 12-17 were used to assess the level of prejudice towards patients with epilepsy – an assessment of social prejudice. These questions used specific scoring, A-1 point, B-2 points, C-3 points, D-4 points. The range of points was 6 to 24, where the lower value indicated a lower level of prejudice toward patients with epilepsy. 6 points – no prejudice, 14 points – a high level of prejudice, 24 points – a very high level of prejudice.

The questionnaire was taken from the article *"A Survey of Public Awareness, Understanding, and Attitudes toward Epilepsy in Greece"* (8), translated and adapted for the purposes of this survey. When responding to this part of the questionnaire, the respondents were asked to take into account that it concerns a person who occasionally has an epileptic seizure, but is otherwise healthy.

STATISTIČKA ANALIZA

Rezultati dobiveni ispitivanjem prikazani su kao apsolutni brojevi (N), aritmetičke sredine pojedinih bodovanja te kao postotci. Odnos između rezultata skupina utvrđivan je nezavisnim t-testom uz P vrijednost manju od 0.01.

STATISTICAL ANALYSIS

The results of the survey are presented as absolute numbers (N), the arithmetic mean of individual scoring, and as percentages. The relationship between the groups was determined by an independent T-test with a P value of less than 0.01.

Hipoteze:

H1: Veća razina znanja utječe na smanjenje predrasuda prema oboljelima od epilepsije.

H1/a: Ispitanici medicinskih škola imaju više znanja o osobama oboljelim od epilepsije i stoga imaju manje predrasuda

H2: Ispitanici iz ruralnog područja imaju manje predrasuda prema oboljelima od epilepsije u odnosu na ispitanike iz urbanih sredina

Hypotheses:

H1: A higher level of knowledge reduces the level of prejudice toward people with epilepsy.

H1/a: Medical school students have more knowledge about people with epilepsy and therefore have less prejudice.

H2: Participants from the rural area have less prejudice toward people with epilepsy in comparison with participants from the city.

REZULTATI

Demografski podatci

Anketi je prisustvovalo 164 ispitanika: 45 muškaraca i 119 žena; 82 ispitanika je iz ruralnih sredina, 82 iz urbanih. Raspon dobi varira od 15-20 godina (sl. 1). Ispitanici su iz 6 smjerova škole Viktorovac (sl. 2).

Iz sl. 1 možemo vidjeti da je najveći broj ispitanika u starosnoj dobi od 17 godina (49), potom 19 godina (46), a najmanji broj ispitanika imao je 16 godina (3).

Iz sl. 2 možemo vidjeti da je najveći broj ispitanika iz medicinske škole (54), slijede farmaceutski tehničari (26), a najmanji broj je konobara (16).

RESULTS

Demographic data

The survey included 164 participants, 45 men and 119 women. According to the place of residence, 82 of the participants were from the rural area and 82 from the city. The age range was 15-20 years (Fig. 1), and the participants were from 6 different courses at the Viktorovac secondary school.

Figure 1 shows that the largest number of participants was 17 years old (49), followed by participants who were 19 years old (46), and only three participants were 16 years old (3).

Figure 2 shows that the largest number of participants were nurses (54), followed by phar-

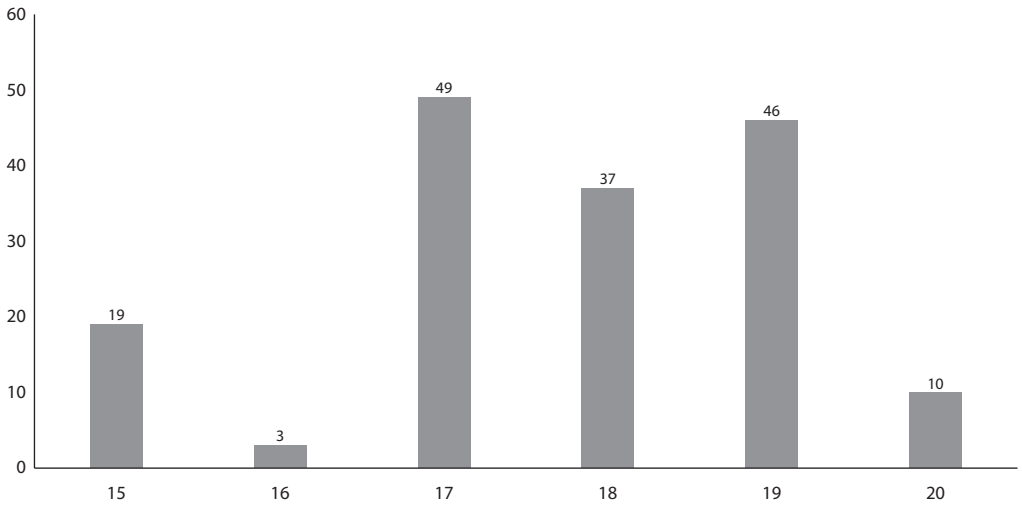

FIGURE 1. Distribution according to age

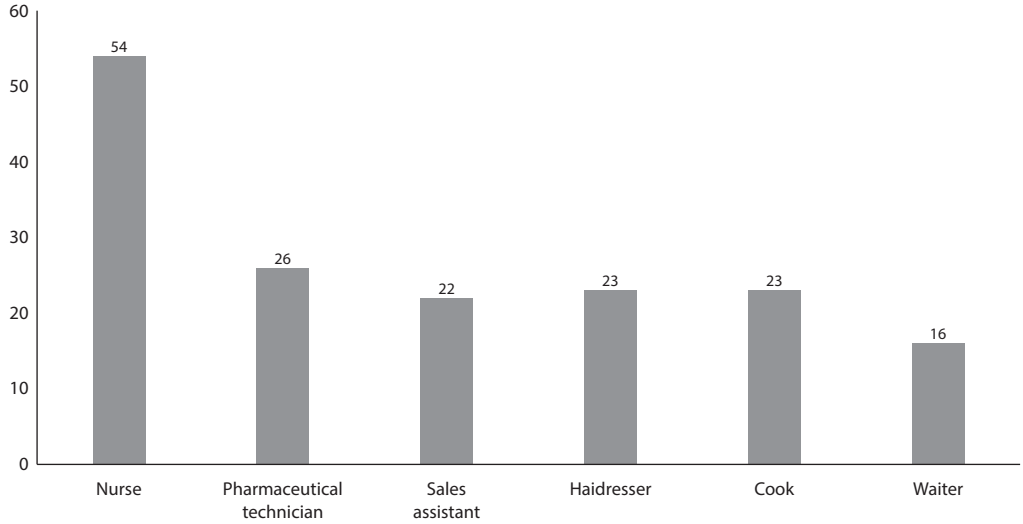

FIGURE 2. Distribution according to school/course

Iz sl. 3 vidimo prosječnu dob ispitanika koja je kod medicinskih struka 18,8 godina, a kod strukovnih nešto niža (16,7 godina) što je i za očekivati jer se radi i o trogodišnjim školama, dok je kod medicinara petogodišnje obrazovanje.

Susretanje s epilepsijom – pitanje 1-4. (tablica 1) Dio upitnika je formiran kako bismo ustanovili koliko su se ispitanici susretali s epilepsijom do provođenja ovog upitnika.

Iz tablice 1 vidimo da je na prvo pitanje potvrdno odgovorilo 78 ispitanika (97,5 %) za medi-

maceutical technicians (26), and the smallest number were waiters (16).

Figure 3 shows that the average age of medical school students was 18.8; in vocational students the number was slightly lower, 16.7, which is expected as vocational schools have three years of education as opposed to medical schools where the education lasts for five years.

Contact with epilepsy – Questions 1-4 (Table 1). Part of the questionnaire constructed to determine the participants' contact with epilepsy up until the survey.

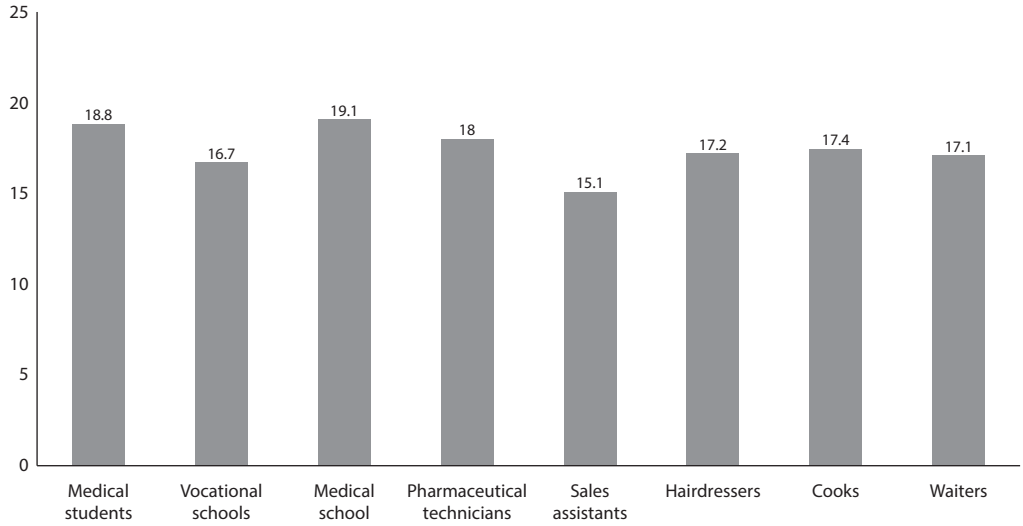

FIGURE 3. Average age of participants by schools

cinske te 84 ispitanika (100 %) za strukovne škole. Međutim zanimljivim se pokazalo da 2 ispitanika (2,5 %) iz medicinskih usmjerenja nisu čuli za epilepsiju. Iz drugog pitanja možemo vidjeti da većina ispitanika nema oboljelog od epilepsije u obitelji (93,75 % iz medicinskih te 78,54 iz strukovnih škola). U trećem pitanju vidimo da su podjednako distribuirani odgovori (48,75 %/58,31 %). Odgovori su podjednako distribuirani i u četvrtom pitanju (42,5 %/36,89 %).

Pitanja 5.-10. – razumijevanje epilepsije – na temelju idućih pitanja rađena je procjena znanja o epilepsiji. Svaki točan odgovor bio je bodovan jednim bodom osim pitanja osam gdje je postojala mogućnost 0,5 boda (tablica 1).

Na peto pitanje točno je odgovorilo 93,75 % iz medicinskih te 73,98 % strukovnih škola. Samo 2,38 % ispitanika iz strukovnih škola mislilo je da je epilepsija vrsta mentalne retardacije. Na pitanje broj 6 većina ispitanika je odgovorila da epilepsija nije psihijatrijska bolest (55,51 %), ali i velik broj ispitanika (21 %) odgovorio je potvrdno. Važan je podatak da su podjednako netočno odgovorili učenici medicinskih i strukovnih škola (21,25 %/20,23 %). Sedmo pitanje, odnosno da je epilepsija nepravilnost u radu mozga 82,5 % učenika medicinskih škola odgovorilo je točno, dok je iz strukovnih taj postotak samo 40,46 %. U osmom pitanju je bilo moguće zaokružiti više točnih odgovora. Od 247 ukupno zaokruženih odgovora o uzroku nastanka epilepsije 42,23 % odgovorilo je da je to poremećaj u funkcioniranju živčanog sustava, s time da su to bili većinom ispitanici medicinske struke (73/30 u broju zaokruženih odgovora pod „A“). Slijedi naslijeđena bolest sa 29,28 %. 12,81 % ispitanika je odgovorilo da je uzrok mentalni ili psihološki poremećaj.

U devetom pitanju dominirao je odgovor A, koji je odabralo 56,25 % medicinara te 30,94 % učenika strukovnih škola; 22,5 % medicinara te 42,84 % učenika strukovnih škola nije znalo odgovor. U desetom pitanju dominiraju dva odgo-

Table 1 shows that 78 (97.5%) participants from medical and 84 (100%) from vocational school answered affirmatively to the first question. However, it is interesting that 2 participants (2.5%) from the medical school never heard of epilepsy. The replies to the second question show that most of the participants do not have any family members suffering from epilepsy (93.75% from medical and 78.54 from vocational schools). The responses are equally distributed in the third (48.75% / 58.31%) and the fourth (42.5% / 36.89%) question.

Questions 5-10 – understanding of epilepsy – the assessment of knowledge of epilepsy was based on these questions. Every correct answer was scored with one point apart from Question 8 where 0.5 points were a possible score (Table 1).

Question five was answered correctly by 93.75% of students from medical and 73.98% of students from vocational schools. Only 2.38% of participants from vocational schools thought that epilepsy was a type of mental retardation. When asked if epilepsy is a type of psychiatric illness (Q6), most of the participants (55.1%) answered negatively, but also a large number of participants answered affirmatively (21%). It is important to note that the students of medical and vocational schools were equally incorrect in their answers (21.25% / 20.23%). An affirmative answer was given by 82.5% of medical school students to Question 8 – epilepsy is a nervous system disorder, while the same answer was given by only 40.46% of students from vocational schools. In Question 8 it was possible to choose more than one correct answer. Out of the 247 circled answers on the causes of epilepsy, 42.23% of the participants answered that it is a nervous system disorder, provided that most of the respondents were from medical schools (73/30 ratio for answer “A”). This was followed by hereditary disease with 29.28%. The answer chose by 12.81% of the participants was that it is a mental or psychological disorder.

Question 9 was dominated by response A, which was chosen by 56.25% of students from

TABLE 1. Questions 1-10 – distribution of answers

QUESTION		MEDICAL SCHOOLS		VOCATIONAL SCHOOLS	
		N	%	N	%
1. Have you ever heard of a disease called epilepsy?	YES	78	97.5	84	100
	NO	2	2.5	0	0
	I DO NOT KNOW	0	0	0	0
2. Do you have a close relative with epilepsy?	YES	4	5	11	13.09
	NO	75	93.75	66	78.54
	I DO NOT KNOW	1	1.25	7	8.33
3. Do you personally know someone with epilepsy?	YES	39	48.75	49	58.31
	NO	38	47.5	27	32.13
	I DO NOT KNOW	3	3.75	8	9.52
4. Have you ever seen an epileptic seizure?	YES	34	42.5	31	36.89
	NO	44	55	49	58.31
	I DO NOT KNOW	2	2.5	4	4.76
5. Do you think epilepsy is a type of mental retardation?	YES	0	0	2	2.38
	NO	75	93.75	62	73.78
	I DO NOT KNOW	5	6.25	20	23.08
6. Do you think epilepsy is a type of psychiatric illness?	YES	17	21.25	17	20.23
	NO	53	66.25	38	45.22
	I DO NOT KNOW	10	12.5	29	34.51
7. Do you think epilepsy is a type of brain disorder or malfunction?	YES	66	82.5	34	40.46
	NO	3	3.75	14	16.66
	I DO NOT KNOW	11	13.75	36	42.84
8. What do you think is the cause(s) of epilepsy? (you may choose more than one answer).	A nervous system disorder.	73	53.29	30	27.3
	A congenital abnormality.	12	8.76	13	11.83
	A mental or psychological disorder.	13	9.49	8	7.28
	A hereditary disease.	32	23.36	16	14.56
	A blood disease.	1	0.73	3	2.73
	Some other cause.	3	2.19	6	5.46
	I do not know	3	2.19	34	30.94
9. An epileptic can be radically cured without taking any medications.	Never	45	56.25	26	30.94
	Rarely	16	20	19	22.61
	Often	0	0	1	1.19
	Usually yes	1	1.25	2	2.38
	I do not know	18	22.5	36	42.84
10. An epileptic person (man or woman) has children. What do you think is the risk of his/her children having the same problem?	No risk	7	8.75	4	4.76
	Low risk	12	15	7	8.33
	Moderate risk	34	42.5	27	32.13
	High risk	6	7.5	8	9.52
	I do not know	21	26.25	38	45.22

vora, „C“ i „E“, 37,29 % svih ispitanika misli da postoji srednji rizik za djecu da naslijede epilepsiju od roditelja, a 35,99 % nije znalo odgovoriti. Nema značajnih razlika u odgovorima na pitanje deset između medicinara i strukovnih škola.

Iz dobivenih vrijednosti izračunate su aritmetičke sredine. Aritmetička sredina ispitanika medicinskog smjera iznosi 3,42 boda, a za ispitanike strukovnog smjera 2 boda. Analiza dobivenih podataka izračunata je nezavisnim t-testom uz P vrijednost 0,01, kojom je utvrđeno da je razlika između dobivenih rezultata statistički značajna te da učenici medicinskih struka imaju veće znanje (sl. 4). Time smo djelomično potvrdili početnu hipotezu da učenici medicinskih škola imaju više znanja o epilepsiji od njihovih vršnjaka iz strukovnih škola.

Iz sl. 4 vidimo distribuciju bodovanja znanja. Kod medicinskih škola se 56 od 80 ispitanika nalazi u rasponu od 3 do 4,5 boda. Kod strukovnih škola 54 od 84 ispitanika nalazi se u rasponu od 0 do 2 boda od mogućih 6 maksimalnih bodova.

Pitanja 11-18 – stavovi o oboljelima od epilepsije, pitanje 11 (tablica 2). Pitanje br. 11 željeli smo vidjeti kako bi ispitanici reagirali kada bi oni sami bolovali od epilepsije i trebali nekome reći za svoju bolest – razina samostigma-

medical and 30.94% of students from vocational schools; 22.5% of medical and 42.84% of vocational school students did not know the answer. Question 10 was dominated by two answers, C and E: 37.29% of participants thought that there is risk for children to inherit epilepsy from their parents, and 35.99% did not know the answer. There are no significant differences between medical and vocational school students in Question 10.

The arithmetic mean was calculated from the obtained values. The arithmetic mean for the medical school participants was 3.42 and 2 points for the vocational school. The analysis of obtained data was performed by an independent T-test with a P value of 0.01, which determined that the difference between obtained results as statistically significant and that students from medical schools have greater knowledge of epilepsy (Fig. 4). This partially confirms the initial hypothesis that medical school students have more knowledge of epilepsy then their peers from vocational schools.

Figure 4 presents the distribution of scores of knowledge on epilepsy. In medical schools, 56 out of 80 participants are in the range of 3 to 4.5 points. In vocational schools, 56 out of 84 participants are in the range of 0 to 2 out of the possible 6 points.

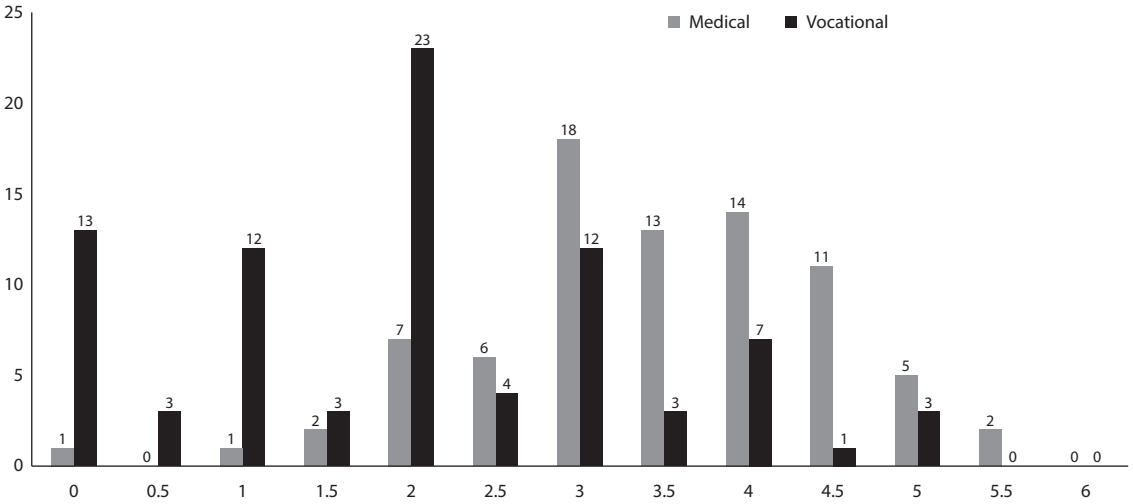

FIGURE 4. Comparison of knowledge between medical and vocational courses

tizacije. Od ukupnog broja ispitanika 51,85 % reklo bi bliskim osobama, a 34,77 % bi mogli svakome reći bez suzdržavanja.

Iz tablice 2 možemo vidjeti da se velika većina ispitanika slaže da bi rekli bliskim ljudima da imaju epilepsiju. Ispitanici medicinskih škola 47,5 %, a strukovne 55,93 %.

Pitanja 12-17 – stavovi o oboljelima od epilepsije koji povremeno dožive epileptički napadaj. Pitanja su korištena u procjeni predrasuda o oboljelima od epilepsije – procjena društvenih predrasuda.

U pitanju 12 dominira odgovor „A" odnosno da bi se ponašali isto prema nekoj osobi i kada bi saznali da boluje od epilepsije (85,4 %); 87,23 % ispitanika bi se i dalje s njima družilo (išli na koncerte, kino...), a 95,16 % bi s oboljelim mogli biti dobar prijatelj; 22,57 % ispitanika malo bi oklijevalo prilikom ulaska u brak s osobom koja ima epilepsiju, a 28,06 % bi malo oklijevali prigodom zapošljavanja oboljeloga u svojoj tvrtki; 90,28 % osoba bi pristalo da se njihova djeca igraju s djetetom koje ima epilepsiju.

Iz pitanja 12-17 (**tablica 3)** izračunali smo aritmetičke sredine dobivenih rezultata. Aritmetička sredina ispitanika medicinske škole iznosi 6,65 bodova, a strukovnih 8,56 boda. Utvrđena je vrlo niska razina stigmatizacije kod obje skupine. Analiza dobivenih podataka izračunata je nezavisnim t-testom uz P vrijednost 0,01, kojom je utvrđeno da je razlika između dobivenih rezultata statistički značajna te da učenici medicinskih struka imaju manju količinu predrasuda o osobama oboljelim od epilepsije od njihovih vršnjaka

Questions 11-18 – questions on attitudes toward patients with epilepsy, Question 11 (Table 2). With Question 11 we wanted to see how the participants reacted if they themselves were suffering from epilepsy and had to tell someone – the level of self-stigmatization. Out of the total number of participants, 51.85% would tell people close to them and 34.77% would talk about it freely with anyone.

Table 2 shows that the vast majority of participants would tell people close to them that they have epilepsy: 47.5% of medical school participants, 55.93% vocational school participants.

Question 12-17 – attitudes toward people with epilepsy who occasionally have seizures. Questions were used to assess the prejudice toward people with epilepsy – assessment of social prejudice.

Answer A dominates in Question 12, i.e. the participants would treat the person the same if they found out he/she suffered from epilepsy (85.4%); 87.23% of the participants would still socialize with them (go to concerts, cinema...), and 95.16% could be good friends with the patient; 22.57% would be a little hesitant before entering into marriage with someone with epilepsy, and 28.06% would be a little hesitant before hiring someone with epilepsy; 90.28% of participants would agree for their children to play with a child with epilepsy.

We calculated the arithmetic mean based on the data obtained from Questions 12-17 (Ta-

TABLE 2. Question 11 – question on attitudes toward patients with epilepsy

If you had epilepsy, how easily would you talk about it with other people?	MEDICAL SCHOOLS		VOCATIONAL SCHOOLS	
	N	%	N	%
I would never tell anyone.	1	1.25	2	2.38
I would only tell to people close to me.	38	47.5	47	55.93
I would talk about it freely with anyone.	34	42.5	23	27.37
I do not know.	7	8.75	12	14.28

TABLE 3. Question 12-17

QUESTION		MEDICAL SCHOOLS		VOCATIONAL SCHOOLS	
		N	%	N	%
12. How would you react if you learned that someone you know has epilepsy?	I would act the same.	76	95	64	76,16
	I would feel a little awkward and afraid and I would rather avoid him/her.	1	1,25	2	2,38
	I would feel very awkward and afraid and I would stop contacting him/her.	0	0	0	0
	I do not know	3	3,75	18	21,42
13. Would you like to associate with him/her in social situations? (concert, cinema)	Yes, no problem.	69	86,25	74	88,06
	I would be a little hesitant about it.	11	13,75	9	10,71
	I would be very hesitant about it.	0	0	1	1,19
	No	0	0	0	0
14. Could you be a close friend with person with epilepsy?	Yes, no problem.	79	98,75	77	91,63
	I would be a little hesitant about it.	1	1,25	7	8,33
	. I would be very hesitant about it.	0	0	0	0
	No	0	0	0	0
15. Would you agree to marry him/her provided this person is otherwise acceptable?	Yes, no problem.	57	71,25	50	59,5
	I would be a little hesitant about it.	18	22,5	19	22,61
	I would be very hesitant about it.	2	2,5	2	2,38
	No	3	3,75	10	11,9
	Unanswered			3	3,5
16. Would you hire him/her in your own business provided he-she had the skills or qualifications for it?	Yes, no problem.	67	83,75	42	49,98
	I would be a little hesitant about it..	12	15	34	40,46
	I would be very hesitant about it.	0	0	0	0
	No	1	1,25	8	9,52
17. Would you agree your children to play and have as a friend another child with epilepsy?	Yes, no problem.	73	91,25	75	89,25
	I would be a little hesitant about it.	7	8,75	6	7,14
	I would be very hesitant about it.	0	0	0	0
	No	0	0	3	3,57

iz strukovnih škola (sl. 5). Time smo potvrdili našu hipotezu povezanosti stigmatizacije i znanja jer su učenici medicinskih škola pokazali veće znanje i manju razinu predrasuda (sl. 6).

Iz grafikona (sl. 4) vidimo da je većina ispitanika pokazala nisku razinu stigmatizacije prema oboljelima od epilepsije.

Iz sl. 6 vidimo distribuciju odgovora koje smo i očekivali. Veću razinu znanja, a manju razinu stigmatizacije pokazali su učenici medicinskih škola.

ble 3). The arithmetic mean of participants from medical schools was 6.65 and 8.56 points for vocational schools. The level of stigmatization was very low in both groups. Analysis of the obtained data was performed by an independent T-test with P value of 0.01, which determined that the difference between the obtained results was statistically significant and that students from medical schools have less prejudice toward people with epilepsy than their peers from vocational schools. This confirms our hypothesis on the association of

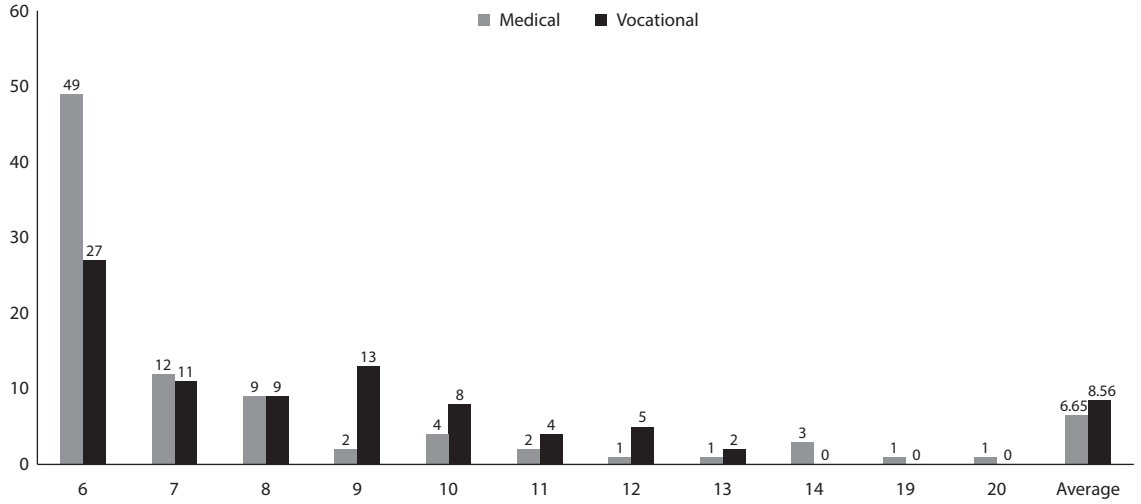

FIGURE 5. Questionnaire results – stigma scale

Pitanjem 18 (tablica 4) željeli smo saznati kako bi osobe kategorizirale navedene bolesti prema težini kada se radi o nekome tko im je blizak. Od 164 ispitanika na pitanje je odgovorilo 115 (sl. 6), većinom na pitanje nisu odgovarali učenici nezdravstvenih usmjerenja (42 od 49 neodgovorenih), a čak 70 % odgovorenih se opredijelilo za dijabetes kao najlakšu bolest.

Tablica 4 pokazuje distribuciju svih odgovora. Velik postotak neodgovorenih pitanja (49,98 %) kod strukovnih pripisujemo nerazumijevanju pitanja.

Iz sl. 7 možemo vidjeti da je većina ispitanika koji su odgovorili na pitanje odabrala dijabetes (67 %) kao potencionalno najlakše oboljenje, a potom slijedi epilepsija (23 %).

Analizom rezultata utvrđeno je utječe li mjesto stanovanja na razinu predrasuda. Izračunom su dobivene aritmetičke sredine razine stigmati-

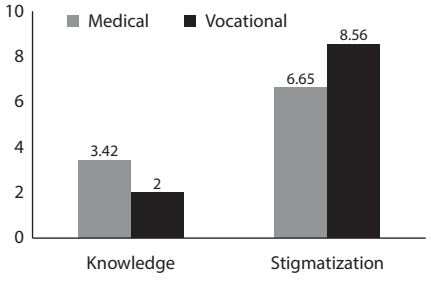

FIGURE 6. Comparison of knowledge and stigmatization

stigmatization and knowledge, since medical school students demonstrated more knowledge of people with epilepsy and therefore have less prejudice.

Figure 4 shows that most of the participants showed a low level of stigmatization toward patients with epilepsy.

Figure 6 presents the expected distribution of answers. Medical school students demonstrated a higher level of knowledge and a lower level of stigmatization.

With Question 18 (Table 4), we wanted to find out how people categorize these diseases according to severity when it comes to someone close to them. Out of the 164 participants, 115 answered the question (Figure 6); most of the participants from vocational schools did not answer the question (42 out of 49 unanswered), and 70% of the participants opted for diabetes as the disease they "prefer".

Figure 7 shows that most of the participants chose diabetes (67%) as the preferred disease, followed by epilepsy (23%).

The analysis showed whether the place of residence influences the level of prejudice. The arithmetic mean for the rural area was 7.83 and 7.71 points for the city. The analysis using independent T-test identified that the differ-

TABLE 4. Question 18

If a person close to you was to have a disease, which one would you "prefer" it to be?	MEDICAL SCHOOLS		VOCATIONAL SCHOOLS	
	N	%	N	%
Epilepsy	16	20	11	13.09
Diabetes	52	65	25	29.75
Chronic respiratory disease	2	2.5	2	2.38
Chronic cardiac disease	1	1.25	1	1.19
Psychiatric disease	2	2.5	3	3.57
No answer	7	8.75	42	49.98

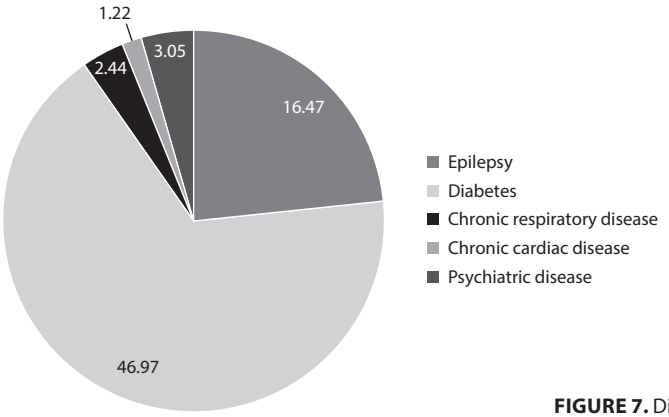

FIGURE 7. Distribution of participants who answered question 18

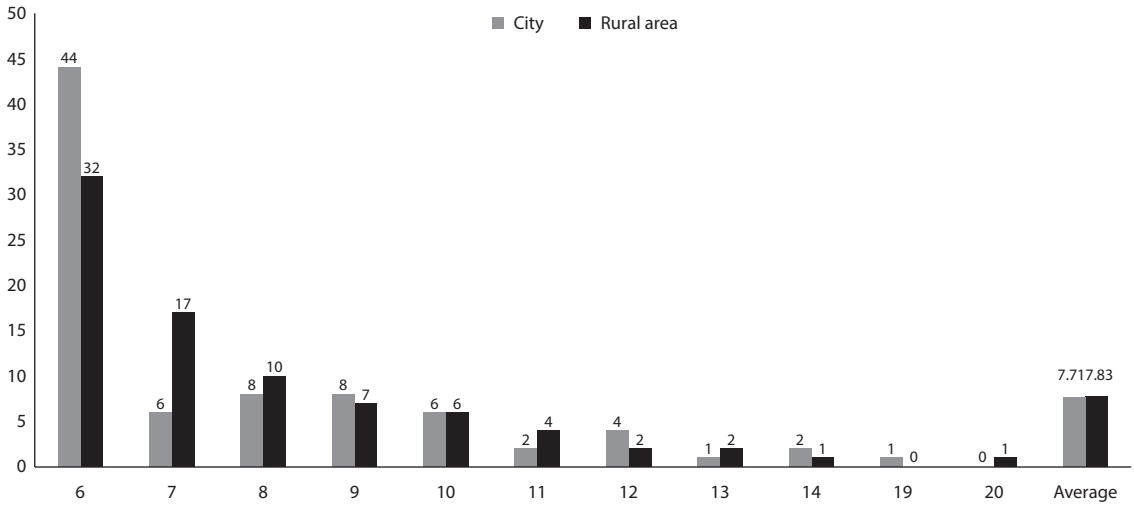

FIGURE 8. Difference in stigmatization according to place of residence

zacije od 7,83 za selo te 7,71 za grad. Analizom nezavisnim t-testom utvrđeno je da razlika nije statistički značajna i odbacujemo hipotezu da mjesto stanovanja utječe na razinu stigmatizacije (sl. 8).

Iz sl. 8 vidimo da razlika između stigmatizacije prema oboljelima od epilepsije prema mjestu stanovanja nije statistički značajna.

ence was not statistically significant, and we thus reject the hypothesis that the place of residence influences the level of stigmatization (Figure 8).

Figure 8 shows the difference between the level of stigmatization towards epilepsy patients according to place of residence is not statistically significant.

RASPRAVA

Danas je podložnost stigmatizaciji veća nego ikada, poglavito zbog visoko postavljenih standarda društvene prihvatljivosti. Od ljudi se danas očekuje da većini poslova pristupaju bez ikakvih ograničenja u funkcioniranju koja sa sobom nose pojedine bolesti kao što je epilepsija. Posvuda u svijetu stigmatizacija bolesnika je prepoznata kao veliki problem. Godine 2011. Europska unija je usvojila „Deklaraciju o epilepsiji" kako bi se podigla svijest javnosti, ali i osigurao novac za istraživanje ove česte bolesti. Danas je u Hrvatskoj oko 45 000 oboljelih od epilepsije, a oko 30 % odnosno 15 000 oboljelih mlađe je od 18 godina. Mlađe osobe podložnije su utjecaju okoline i samim time osjetljivije na predrasude iz društva (6).

Nakon testiranja prve radne hipoteze „veća razina znanja ujedno utječe na smanjenje predrasuda prema oboljelima od epilepsije" utvrdili smo pomoću nezavisnog t-testa da učenici medicinskih škola imaju veću razinu znanja te manju količinu predrasuda i da je ta razlika statistički značajna. Učenici medicinskih škola ostvarili su prosjek od 3,42 boda od mogućih 6, dok je kod učenika strukovnih škola prosjek bio 2 boda. Kod procjene stigme obje grupe su pokazale vrlo nisku razinu stigmatizacije. Prosjek kod medicinskih škola je bio 6,65 od mogućih 24, a kod strukovnih nešto viši, 8,56. Time potvrđujemo prvu radnu hipotezu.

Nakon testiranja druge radne hipoteze „Ispitanici iz ruralnog područja imaju manje predrasuda prema oboljelima od epilepsije u odnosu na ispitanike iz urbanih sredina" utvrđeno je nezavisnim t-testom da razlika među rezultatima nije statistički značajna.

Godine 2007. provedeno je istraživanje među studentima zdravstvenih usmjerenja u Brazilu (studenti četvrtog do sedmog semestra medicine, farmacije, radne terapije). Upitnik se

DISCUSSION

Today, stigmatization is greater than ever, especially due to high standards of social acceptability. People are expected to perform most jobs without any restrictions, which may be present in disorders such as epilepsy. Patient stigmatization is recognized as a major problem all over the world. In 2011, the European Union adopted the "Declaration on Epilepsy" in order to raise public awareness, but also to provide money for research of this common disorder. There are around 45,000 people with epilepsy in Croatia today, and around 30%, i.e. 15,000, patients are younger than 18 years of age. Younger people are more susceptible to peer pressure and thus more vulnerable to societal prejudice (6).

After testing the first working hypothesis, "A higher level of knowledge reduces the level of prejudice towards people with epilepsy", we used an independent T-test to determine that medical school students have a higher level of knowledge and a lower level of prejudice, and that this difference is statistically significant. Medical school students achieved an average of 3.42 out of the possible 6 points, while the average score of vocational school students was 2 points. In the assessment of stigma, both groups showed very low levels of stigmatization. Medical school students achieved an average of 6.65 out of the possible 24, and vocational school students had a slightly higher score of 8.56. This confirms the first working hypothesis.

After testing the second working hypothesis, "Participants from the rural area have less prejudice towards people with epilepsy in comparison with participants from the city", the independent T-test determined that the difference between the results was not statistically significant. In 2007, a survey was conducted among medical students in Brazil (students of the fourth and seventh semesters of medicine, pharmacy, and occupational therapy). The questionnaire was based on knowledge, attitudes, and procedures of epileptic seizures. 32% of

osnivao na poznavanju, stavovima i postupcima kod epileptičkog napada. 32 % ispitanika odgovorilo je da epilepsiju nasljeđujemo, a 11 % da je epilepsija psihijatrijska bolest (9). U našem istraživanju ti podatci su drugačiji. 65 % ispitanika medicinskih škola smatra epilepsiju nasljednom, a 21,12 % da je epilepsija psihijatrijska bolest, što ukazuje na lošiju edukaciju te veću razinu stigmatizacije u našim školama.

Kada sumiramo cijelo istraživanje, neke od dobivenih podataka možemo usporediti s istraživanjem koje je provedeno 2007. godine pod nazivom „Epilepsije i stigma", koje je provedeno u sklopu globalne kampanje „Izaći iz sjene" (tablica 5). Većina pitanja koja se podudara u istraživanjima su odgovorena u sličnom postotku. U istraživanju „Izaći iz sjene" dominantna predrasuda je svrstavanje epilepsije u psihičke bolesti (4). U našem istraživanju je postotak osjetno manji od 21 %, ali je i dalje vrlo visok, pogotovo kada uzmemo u obzir da je polovica naših ispitanika medicinske struke. Distribucija rezultata kod tog pitanja je neočekivana (tablica 1 – pitanje 6). Po 17 ispitanika iz obje skupine odgovorilo je potvrdno, tako da u slučaju tog pitanja (pitanje 6) razlika u znanju nije bila vidljiva. Pad u broju osoba koje misle da je epilepsija psihijatrijska bolest služi kao pokazatelj napretka. Za usporedbu, 2007. godine na isto pitanje u SAD-u je tek 5 % odgovorilo potvrdno, što pokazuje visoku razinu educiranosti populacije o epilepsiji (7). Nažalost, u Hrvatskoj takva razina znanja nije dosegnuta ni 10 godina kasnije. Kasnije ćemo usporediti i rezultate u drugim zemljama (**tablica 7**).

the participants answered that epilepsy is hereditary, and 11% that it is a psychiatric disease (9). Our study found different results. 65% of medical school participants consider epilepsy hereditary, and 21.12% consider it a psychiatric illness, indicating poor education and a higher level of stigmatization in our schools.

When we summarize the entire survey, some of the data obtained can be compared with the study "Epilepsy and Stigma" conducted in 2007 as a part of the global campaign "Out of the Shadows" (Table 5). The questions compatible between the two studies were answered at similar percentages. In "Out of the Shadows" research, the dominant prejudice was the classification of epilepsy as a psychiatric illness (4). In our survey, the percentage was significantly lower, 21%, but was still very high, especially when we consider that half of our participants were medical school students. The distribution of results for this question was unexpected (Table 1 – Question 6). 17 participants from each of the survey groups answered affirmatively, so in the case of this question (Question 6) the difference in the knowledge on epilepsy is not visible. The decline in the number of participants who think that epilepsy is a psychiatric illness serves as an indicator of progress. In comparison, only 5% of the participants in the United States survey (2017) answered affirmatively to the same question, indicating a higher level of education of the population on epilepsy (7). Unfortunately, even 10 years later, this level of knowledge is not present in Croatia. The results from other countries are compared below (Table 7).

The results of vocational school participants from questions 15 and 16 (Table 3) are interest-

TABLE 5. Comparison with the survey conducted in Croatia in 2007 (2)

QUESTION	2007 (%)	2016 (%)
Have you heard of epilepsy?	91	99
Have you seen an epileptic seizure?	40	50
Do you know anyone with epilepsy?	54	57
Epilepsy is a psychiatric illness.	41	21

TABLE 6. Comparison with research in Greece in 2006 (8)

QUESTION		2006 Greece	2016 Croatia
		%	%
12. How you would react if you learnt that someone you know has epilepsy?	I would act the same.	76.3	85.4
	I would feel a little awkward and afraid and I would rather avoid him.	8.9	1.8
	I would feel very awkward and afraid and I would stop contacting him.	6.5	0
	I do not know.	6.9	12.8
13. Would you like to associate with him/her in social situations? (concert, cinema)	Yes, no problem.	74.9	87.3
	I would be a little hesitant about it.	14.5	12.2
	I would be very hesitant about it.	4.9	0.6
	No.	4.1	0
14. Could you be a close friend with him/her?	Yes, no problem.	64.7	95.1
	I would be a little hesitant about it.	17.8	4.9
	I would be very hesitant about it.	7.8	0
	No	8,2	0
15. Would you agree to marry him/her provided this person is otherwise acceptable?	Yes, no problem.	9	65.3
	I would be a little hesitant about it.	22.8	22.6
	I would be very hesitant about it.	21	2.4
	No	45.4	7.9
	Unanswered		1.8
16. Would you hire him/her in your own business provided he-she had the skills or qualifications for it?	Yes, no problem.	37.7	66.5
	I would be a little hesitant about it.	35.7	28.1
	I would be very hesitant about it.	12.1	0
	No	12.8	5.4
17. Would you agree your children to play and have as a friend another child with epilepsy?	Yes, no problem.	65.2	90.3
	I would be a little hesitant about it.	18.9	7.9
	I would be very hesitant about it.	6.5	0
	No	7.9	1.8

TABLE 7. Comparison with similar researches (8)

Research	I have heard of epilepsy	I know someone with epilepsy	Epilepsy is a psychiatric illness	Do not want their children to play with someone with epilepsy	Do not want to marry someone with epilepsy	Would you hire someone with epilepsy
SAD Cavennes 1974. (11)	95	63	3	6	18	79
Italy Canger 1985. (12)	73	61	8	21	-	70
Denmark Jensen 1992. (13)	97	60	-	7	-	93
Hungary Mirnics 1994. (14)	88	51	15	19	53	45
China Lai 1990. (15)	93	77	16	57	87	35
New Zealand Hills 2002. (16)	95	73	1	18	5	69
Austria Spatt 2005. (17)	89	40	11	11	15	84
Greece 2006. (8)	94	40	15	14	66	73
Croatia Breček 2016.	99	54	21	2	8	95

Interesantni su rezultati pitanja 15 i 16 (tablica 3) kod ispitanika iz strukovnih škola, gdje je 23 % reklo da bi malo oklijevali prilikom ulaska u brak sa osobom koja boluje od epilepsije, a 41 % bi malo oklijevalo u slučaju zapošljavanja osobe s epilepsijom. Možemo zaključiti iz tih rezultata da smatraju kako osobe s epilepsijom nisu jednako radno sposobne kao zdrave osobe. Puno lakše se odlučuju na suživot, nego na poslovnu suradnju.

Možemo usporediti i dobivene podatke sa sličnim istraživanjem koje je 2006. godine provedeno u Grčkoj. Obuhvaćalo je raznoliku populaciju (750 ispitanika) pa smo kao usporedbu u našem istraživanju uzeli ukupne rezultate bez obzira na usmjerenje (8). U prva tri pitanja (12,13,14 – **tablica 6**) razlike su vrlo male. Ali kada gledamo iduća 3 pitanja (15, 16, 17), evidentna je razlika u razini predrasuda, kako je tih 6 pitanja i korišteno u procjeni stigmatizacije epilepsije. Na pitanje biste li ušli u brak s osobom koja ima epilepsiju u Grčkoj je čak 45,4 % ispitanika odgovorilo negativno, kod nas je taj postotak daleko manji, samo 7,9 %. Nadalje samo 37,7 % osoba bi bez oklijevanja zaposlilo oboljeloga u svojoj firmi, naspram 66,5 % u Hrvatskoj. I na kraju 65,2 % ispitanika u Grčkoj bi bez oklijevanja pristalo da se njihova djeca igraju s oboljelim, dok je kod našeg istraživanja i taj podatak pokazatelj manje razine predrasuda, 90,3 %.

Istraživanja o stigmatizaciji oboljelih od epilepsije provođena su i u drugim zemljama te ćemo priložiti odgovore na pitanja koja su se u našim istraživanjima podudarala. I u drugim istraživanjima se analizira mišljenje o epilepsiji kao psihijatrijskoj bolesti. Postotak je manji nego u našem istraživanju. U posljednjim godinama smo napredovali, ali i dalje je potrebno djelovati na stigmatizaciju u području znanja o bolestima.

Tablica 6 prikazuje pitanja iz sličnog istraživanja koje je provedeno u Grčkoj 2006 godine, a

ing: 23% of them answered that they would hesitate before entering into marriage with someone with epilepsy, and 41% would hesitate before hiring someone with epilepsy. These results allow us to conclude that they regard people with epilepsy less capable for work than healthy people. They chose cohabitation with people with epilepsy much more easily than business cooperation.

We can also compare the data obtained from a similar survey conducted in Greece in 2006. This survey included a diverse population (750 participants), and for the comparison with our results we used the overall results regardless of the profession (8). In the first three questions (12, 13, 14 – Table 6), the differences are very low. But when we look at the three following question (15, 16, 17), there is an obvious difference in the level of prejudice, as these six questions have been used in the assessment of stigmatization of patients with epilepsy. In Greece, 45.4% of the respondents answered negatively to the question: "Would you agree to marry him/her provided this person is otherwise acceptable?" In our survey this percentage is much lower, only 7.9%. In addition, only 37.7% of the participants would hesitate to hire a person with epilepsy to their company, compared with 66.5% in Croatia. Lastly, 65.2% of the participants in Greece would agree for their child to play with children with epilepsy, while in our survey these data are the indicator of a lower level of prejudice, 90.3%.

Studies on stigmatization of with patients epilepsy have been conducted in other countries, and we will supply the answers to questions which coincided those used in our study. Attitude towards epilepsy as a psychiatric illness was also analyzed in other studies. The percentage is lower than in our study. There has been progress in the last few years, but there is still a need to act on stigmatization in the education about this disorder.

Table 6 presents questions from a similar study conducted in Greece in 2006, from which we

iz kojeg smo preuzeli upitnik procjene stigme za naše istraživanje.

Tablica 7 prikazuje usporedbe pitanja koja se podudaraju s prijašnjim sličnim istraživanjima provedenim u drugim zemljama.

ZAKLJUČAK

Ako krenemo od teorije da je stigma pogled društva ili osobno iskustvo povezano s osjećajem krivnje i manje vrijednosti nastalo kao posljedica krivog shvaćanja bolesti, iz te teorije možemo uvidjeti važnost edukacije, odnosno ulogu znanja u sprječavanju nastanka predrasuda. Često se smatra da su osobe koje boluju od epilepsije znatno ograničenije u svojim životnim potrebama, a pri tome zaboravljamo na ljude koji su bili uspješni usprkos epilepsiji (Alfred Nobel, Vincent Van Gogh, Napoleon Bonaparte..). Do danas je liječenje epilepsije bitno uznapredovalo i čak 80 % medikamentno tretiranih ne dožive ni jedan napad (18). Epilepsija, dakako, remeti sve aspekte života i lako može postati fizičko, psihičko i socijalno opterećenje/problem za pojedinca, no i s njom osoba može živjeti ispunjen i zadovoljavajući život. Često je najteži dio života s epilepsijom kako se nositi s reakcijama drugih.

U konačnici je važno staviti naglasak na edukaciju, kako zdravstvenih djelatnika, tako i opće populacije, jer kao što smo dokazali u ovom istraživanju stigmatizacija je povezana s razinom znanja i stoga možemo reći: „Znanjem protiv stigme!“, kako za epilepsiju, tako i za mnoge druge bolesti kod kojih neznanje uzrokuje socijalnu izolaciju i time produbljuje problematiku pacijentovog stanja.

have taken the questionnaire on the assessment of stigmatization for our research.

Table 7 presents the comparison between questions that are consistent with similar surveys conducted in other countries.

CONCLUSION

If we start from the theory that stigma is the mindset of society or personal experience associated with the feeling of guilt and inferiority resulting from a misconception of an illness, we can see the importance of education and the role of knowledge in preventing the occurrence of prejudice. It is often thought that people with epilepsy are more limited in their needs, and we forget about those who have been successful despite epilepsy (Alfred Nobel, Vincent Van Gogh, Napoleon Bonaparte...). To date, the treatment of epilepsy has significantly improved, and as many as 80% of those medically treated do not experience a single seizure (18). Epilepsy clearly disrupts all aspects of life and can easily become a physical, psychological, and social burden or problem for the individual, but a person can also live a fulfilling and satisfying life with epilepsy. Often, the hardest part of living with epilepsy is dealing with the reactions of others.

Ultimately, it is important to focus on education of medical professionals and the general population, because, as we demonstrated in our research, stigmatization is associated with the level of knowledge, and we can therefore say: “Knowledge against stigma!” This applies to epilepsy and many other illnesses in which ignorance causes social isolation and thus deepens the problematics of the patient’s condition.

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QUESTIONNAIRE

Dear,

Before you is a questionnaire for the purpose of research work on the topic: **"Stigmatization and Stereotypes in Patients with Epilepsy"**. Please follow the instructions carefully and answer honestly to questions and offered statements. The data will be used solely for the purpose of research. We take responsibility for keeping your personal data.

We thank in advance all participants of the research!

1. Sex (mark with X)

- ☐ **M**
- ☐ **Ž**

2. Age (write age in years)

☐

3. Place of residence (mark with X)

- ☐ City - A
- ☐ Rural area -B

4. School /courses (mark with X)

- ☐ Nurse / technician - A
- ☐ Pharmaceutical technician - B
- ☐ Sales assistant - C
- ☐ Hairdresser - D
- ☐ Cook - E
- ☐ Waiter - F
- ☐ Other (name): _____

Knowledge and attitudes towards epilepsy patients (circle the answer you consider correct):

1. Have you ever heard of a disease called epilepsy?
   a) Yes
   b) No
   c) I do not know

2. Do you have a close relative with epilepsy?
   a) Yes
   b) No
   c) I do not know

3. Do you know anyone with epilepsy?
   a) Yes
   b) No
   c) I do not know

4. Have you ever seen an epileptic seizure?
   a) Yes
   b) No
   c) I do not know

5. Do you think epilepsy is a type of mental retardation?
   a) Yes
   b) No
   c) I do not know

6. Do you think epilepsy is a type of a psychiatric illness?
   a) Yes
   b) No
   c) I do not know

7. Do you think epilepsy is a type of brain disorder or malfunction?
   a) Yes
   b) No
   c) I do not know

8. What do you think is the cause(s) of epilepsy? (you may choose more than one answer).

a) A nervous system disorder
b) A congenital abnormality
c) A mental or psychological disorder
d) A hereditary disease
e) A blood disease
f) Some other cause
g) I do not know

9. An epileptic can be radically cured without taking any medications.
   a) Never
   b) Rarely
   c) Often
   d) Usually yes
   e) I do not know

10. An epileptic person (man or woman) has children. What do you think is the risk of his/her children having the same problem?
   a) No risk
   b) Low risk
   c) Moderate risk
   d) High risk
   e) I do not know

Before answering the following questions please consider, for the purpose of this questionnaire, an epileptic as a person who occasionally has a seizure but is otherwise normal.

11. If you had epilepsy, how easily would you talk about it with other people?
   a) I would never tell anyone
   b) I would tell only to people close to me
   c) I would talk about it freely with anyone
   d) I do not know

12. How would you react if you learned that someone you know has epilepsy?
   a) I would act the same
   b) I would feel a little awkward and afraid and I would rather avoid him/her
   c) I would feel very awkward and afraid and I would stop contacting him/her
   d) I do not know

13. Would you like to associate with him/her in social situations? (concert, cinema)
    a) Yes, no problem
    b) I would be a little hesitant about it
    c) I would be very hesitant about it
    d) No

14. Could you be a close friend with person with epilepsy?
    a) Yes, no problem
    b) I would be a little hesitant about it
    c) I would be very hesitant about it
    d) No

15. Would you agree to marry him/her provided this person is otherwise acceptable?
    a) Yes, no problem
    b) I would be a little hesitant about it
    c) I would be very hesitant about it
    d) No

16. Would you hire him/her in your own business provided he-she had the skills or qualifications for it?
    a) Yes, no problem
    b) I would be a little hesitant about it
    c) I would be very hesitant about it
    d) No

17. Would you agree your children to play and have as a friend another child with epilepsy?
    a) Yes, no problem
    b) I would be a little hesitant about it
    c) I would be very hesitant about it
    d) No

18. If a person close to you was to have a disease, which one would you "prefer" it to be?
    a) Epilepsy
    b) Diabetes
    c) Chronic respiratory disease
    d) Chronic cardiac disease
    e) Psychiatric disease