

Demografske značajke medicinskih sestara i profesionalno sagorijevanje: *burnout* u domovima za starije osobe u Hrvatskoj i Sloveniji

/ Demographic Characteristics of Nurses and Professional Burnout: Burnout in Nursing Homes in Croatia and Slovenia

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Ispitan je sindrom profesionalnog sagorijevanja među medicinskim sestrama/tehničarima i njegovateljicama/njegovateljima u domovima za starije osobe u Hrvatskoj i Sloveniji. Ukupno je sudjelovalo 436 ispitanika (240 iz Hrvatske i 196 iz Slovenije). Istraživanje je uključivalo analizu demografskih podataka poput dobi, bračnog statusa, obrazovanja i radnog staža te njihovog odnosa sa sindromom profesionalnog sagorijevanja. Za ispitivanje razine profesionalnog sagorijevanja primijenjen je validirani upitnik *The Oldenburg Burnout Inventory* (OLBI). Rezultati su pokazali visoku razinu sindroma profesionalnog sagorijevanja u objema državama s gotovo polovicom ispitanika u kategoriji visokog intenziteta. Demografske varijable nisu iskazale jasan značajan učinak na varijablu profesionalnog sagorijevanja. Analize nisu pokazale značajne razlike između Hrvatske i Slovenije u pogledu izraženosti intenziteta sindroma sagorijevanja. Istaknuta je važnost problema sindroma profesionalnog sagorijevanja među zdravstvenim radnicima u domovima za starije osobe te potreba za daljnjim istraživanjem kako bi se bolje razumjeli faktori koji doprinose tom fenomenu kao i potreba za većim uzorkom ispitanika pojedinih potkategorija istraživanih varijabli.

/ This study examined the syndrome of professional burnout among nurses/technicians and caregivers in nursing homes in Croatia and Slovenia. A total of 436 respondents participated in the study (240 from Croatia and 196 from Slovenia). The study included an analysis of demographic data such as age, marital status, education and length of service, as well as the respondents' attitude towards the professional burnout syndrome. A validated questionnaire, The Oldenburg Burnout Inventory (OLBI), was used to assess the level of professional burnout. The results showed high levels of professional burnout syndrome in both countries, with almost half of the respondents being in the high-intensity category. Additionally, demographic variables did not have a clear significant impact on the professional burnout variable. Analyses did not show significant differences between Croatia and Slovenia in terms of burnout syndrome intensity. The importance of the professional burnout syndrome problem among healthcare workers in nursing homes was highlighted, as well as the need for further research in order to better understand the factors contributing to this phenomenon, and the need to include a larger sample of respondents within specific subcategories of the researched variables.

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UVOD

Sestrinska profesija smatra se jednom od težih profesija na globalnoj razini i karakterizirana je velikim opterećenjem, brzim tempom i intenzitetom rada (1) pa se stoga sestrištvo smatra rizičnom profesijom za nastanak profesionalnog sagorijevanja (2). Pojam sagorijevanje (engl. *burnout*) sedamdesetih je godina prošloga stoljeća u New Yorku prvi put u kliničkom smislu upotrijebio psiholog Herbert J. Freudenberger (3), kada se bavio ovisnicima o psihoaktivnim supstancijama koje se u to vrijeme nazivalo „burnouts“. Taj naziv označavao je osobu koja nije bila zainteresirana ni za što osim za drogu i postizanje njenog psihostimulativnog efekta što je za posljedicu kod osobe dovodilo do propadanja motivacije te radnih i životnih sposobnosti (4). Freudenberger je u članku izdanom 1974. godine opisao gubitak volje, snage, energije te iscrpljenost među liječnicima koji su pružali podršku ovisnicima. Tada je prvi put upotrijebljen izraz „burnout“ koji je ostao utemeljen te se kao takav zadržao do današnjeg dana (5).

Nekoliko godina kasnije profesorica socijalne psihologije Christine Maslach, koja se smatra jednom od vodećih istraživača na području profesionalnog sagorijevanja (4), zajedno sa suradnicima definira profesionalno sagorijevanje kao sindrom emocionalne iscrpljenosti, depersonalizacije i smanjenog osobnog postignuća u pojedinaca koji imaju kontaktnu odnosno

INTRODUCTION

The nursing profession is globally considered to be one of the more challenging professions, characterized by heavy workloads, fast pace and work intensity (1), therefore nursing is viewed as a profession with a high risk of developing professional burnout (2). The term “burnout” was first used in a clinical sense by psychologist Herbert J. Freudenberger (3) in New York in the 1970s while he was working with individuals addicted to psychoactive substances, who were at that time called “burnouts”. The term denoted an individual who was not interested in anything except drugs and achieving their psycho-stimulating effect, which resulted in declining motivation, work and life skills (4). In an article published in 1974, Freudenberger described the loss of will, strength and energy, as well as exhaustion, among doctors who provided support to addicts. This was when he first used the term “burnout”, which has remained a well-established term to this day (5).

A few years later, Christine Maslach, social psychology professor who is considered as one of the leading researchers in the field of professional burnout (4), together with her colleagues defined professional burnout as a syndrome of emotional exhaustion, depersonalization and reduced personal achievement in individuals who are engaged in a contact or helping profession and are working with people (6). Burnout is a long-term response to chronic emotional and interpersonal stressors at work, and is defined through three dimensions: exhaustion, feelings of cynicism,

pomagačku profesiju u radu s ljudima (6). Sagorijevanje je dugotrajni odgovor na kronične emocionalne i međuljudske stresore na poslu, a definira se u tri dimenzije: iscrpljenost, osjećaj cinizma i profesionalna neučinkovitost (7). Kasnije je ovaj sindrom prerastao specifičan radni kontekst pomagačkih profesija i smatra se da su stresu izloženi radnici na svim poslovima (8). Svjetska zdravstvena organizacija (SZO) definira sagorijevanje sindromom, a konceptualiziran je kao rezultat kroničnog stresa na radnom mjestu koji nije uspješno kontroliran. Karakteriziraju ga tri dimenzije: osjećaj gubitka energije ili iscrpljenost, povećana mentalna udaljenost od posla, osjećaj negativizma ili cinizma u vezi s poslom te smanjena profesionalna učinkovitost. Prema Svjetskoj zdravstvenoj organizaciji uzrok nastanka sagorijevanja je dugotrajan izloženost stresu u radu i posljedica je neriješenog stresa (9), dok teorija koju zastupa Maslach opisuje sagorijevanje kao stanje koje se javlja kao rezultat dugotrajne neusklađenosti između osobe i najmanje jedne od sljedećih šest dimenzija posla:

1. Opterećenje - oporavak se osobe ne može postići zbog pretjeranih zahtjeva;
2. Kontrola - zaposlenici nemaju dovoljnu kontrolu nad resursima potrebnima za rad;
3. Nagrada - izostanak adekvatne nagrade (financijske, društvene i intrinzične) za obavljeni posao;
4. Suradništvo - zaposlenici ne percipiraju osjećaj povezanosti sa svojim kolegama i menadžerima, što dovodi do frustracije;
5. Nepravda - nejednakost radnog opterećenja i plaća;
6. Vrijednosti - zaposlenici na poslu djeluju protiv vlastitih uvjerenja i težnji (10).

Jedna od podjela čimbenika rizika za nastanak sagorijevanja dijeli se u tri kategorije:

1. Intrapersonalni čimbenici gdje je fokus na nedostatku ravnoteže između očekivanja njegovatelja i stvarnosti;

and professional ineffectiveness (7). This syndrome later outgrew the specific work context of helping professions and it is considered that workers in all professions are exposed to stress (8). The World Health Organization (WHO) defines burnout as a syndrome, conceptualized as the result of chronic workplace stress that is not successfully managed. It is characterized by three dimensions: feelings of energy depletion or exhaustion, increased mental distance from one's job, feelings of negativism or cynicism relating to one's job, and reduced professional efficacy. According to the World Health Organization, the cause of burnout is long-term exposure to stress at the workplace and it represents a consequence of unresolved stress (9), while the theory advocated by Maslach describes burnout as a condition that occurs as the result of a long-term mismatch between an individual and at least one of the following six job dimensions:

1. Workload – an individual is unable to recover due to excessive demands;
2. Control – employees do not have sufficient control over the resources needed for work;
3. Reward – lack of adequate reward (financial, social and intrinsic) for the work performed;
4. Community – employees do not feel a sense of connection with their colleagues and managers, which leads to frustration;
5. Fairness - inequality in terms of workload and wages;
6. Values - employees act against their own beliefs and aspirations at work (10).

One of the divisions of risk factors for the occurrence of burnout includes three categories:

1. Intrapersonal factors where focus is on the lack of balance between caregiver's expectations and reality;
2. Interpersonal factors where the relationship between caregiver and client/patient is emphasized;
3. Organizational factors based on the mismatch between workers and work organization (11).

2. Interpersonalni čimbenici gdje se naglašava odnos između njegovatelja i klijenta/pacijenta;
3. Organizacijski čimbenici temeljeni na neusklađenosti između radnika i organizacije posla (11).

Sagorijevanje potiču stresori kao što su pretjerani i ometajući zahtjevi zbog vrlo zahtjevnih pacijenata, nedostatka dobrog odnosa i angažman samog pacijenta kao i nedostatak poštovanja, brojni administrativni poslovi te sam sadržaj rada (12).

Simptomi sagorijevanja se mogu svrstati u četiri ključne dimenzije:

1. iscrpljenost (ozbiljan gubitak energije koji rezultira osjećajem fizičke i mentalne iscrpljenosti);
2. mentalna udaljenost (nevoljkost ili odbojnost prema poslu, ravnodušnost i cinizam);
3. kognitivno oštećenje (problemi s pamćenjem, poremećaji pažnje i koncentracije te loša kognitivna izvedba);
4. emocionalno oštećenje (intenzivne emocionalne reakcije poput ljutnje ili tuge i osjećaj preplavljenosti vlastitim emocijama).

Sekundarni atipični simptomi karakteriziraju se kao depresivno raspoloženje, psihološki distress i psihosomatske tegobe (13). Različiti simptomi vezani uz tjelesne i psihičke probleme kao što su glavobolja, prehlada, nesаница, anksioznost te poremećaji povezani s koncentracijom i pamćenjem (14) rezultiraju čestim izostancima s posla kao i sveprisutnim napuštanjem postojećeg radnog mjesta (15).

Fizička, psihička i emocionalna iscrpljenost su ozbiljan problem s kojim se mnoge medicinske sestre suočavaju zbog dugotrajnog stresa na radnom mjestu, a karakteriziraju ih kronični umor, problemi sa spavanjem, pažnjom, fizički problemi poput boli u prsima, lupanja srca, vrtoglavice, gastrointestinalni simptomi, gubitak apetita, depresija i ljutnja (16).

Burnout is triggered by stressors such as excessive and disruptive demands due to very demanding patients, lack of a good relationship and engagement of the patients themselves, as well as lack of respect, numerous administrative tasks and the content of the work itself (12).

The symptoms of burnout can be classified into four key dimensions:

1. Exhaustion (serious loss of energy resulting in a feeling of physical and mental exhaustion);
2. Mental distance (reluctance or aversion to work, indifference and cynicism);
3. Cognitive impairment (memory problems, attention and concentration disorders, and poor cognitive performance);
4. Emotional impairment (intense emotional reactions such as anger or sadness, or feeling overwhelmed by one's own emotions).

Secondary atypical symptoms are characterized by depressed mood, psychological distress and psychosomatic complaints (13). Various symptoms related to physical and psychological issues such as headaches, colds, insomnia, anxiety and disorders associated with concentration and memory (14) result in frequent absences from work, as well as in general abandonment of the current workplace (15).

Physical, mental and emotional exhaustion are a serious problem present among many nurses due to long-term stress at the workplace, and are characterized by chronic fatigue, difficulty sleeping or paying attention, physical issues such as chest pain, palpitations, dizziness, gastrointestinal symptoms, loss of appetite, depression and anger (16).

Due to impaired mental and physical health of nurses, the consequences of burnout could be manifested in the quality of health care, which could affect the conditions of patients and their recovery (14).

The World Health Organization officially recognized burnout as an occupational phenomenon in 2019, and it was then included in the 11th re-

Zbog narušenog mentalnog i tjelesnog zdravlja medicinskih sestara, posljedice sagorijevanja se mogu očitovati u kvaliteti zdravstvene njege, što može utjecati na stanje pacijenata i njihov oporavak (14).

Svjetska zdravstvena organizacija je 2019. godine službeno priznala sagorijevanje kao profesionalni fenomen i uvrstila ga u 11. reviziju Međunarodne klasifikacije bolesti (MKB-11) (17).

Za mjerenje sagorijevanja najčešće se koristi *Maslach Burnout Inventory* (MBI), validirani upitnik (18), koji su po prvi puta operacionalizirali 1980-ih Maslach i suradnici te se smatra standardnim alatom za istraživanje u ovom području. Upitnik je posebno dizajniran za procjenu trodimenzionalnog iskustva sagorijevanja: emocionalne iscrpljenosti, depersonalizacije i manjka osobnog postignuća (19) za razliku od Oldenburškog upitnika (OLBI) koji je primijenjen u ovom istraživanju te procjenjuje dvije dimenzije: iscrpljenost i otuđenost (20). Općenito, u kasnijim radovima je doživljaj smanjenog postignuća izostavljen iz primarnih dimenzija sagorijevanja te se smatra njihovom posljedicom. S druge strane, iscrpljenost i depersonalizacija ili psihološka distanciranost od vlastitog posla su ključne dimenzije ovog sindroma (6) i važne su za diferencijalnu dijagnostiku gdje se ponajprije želi razlikovati sagorijevanje od kroničnog umora ili uz rad vezane depresivnosti (21).

Prije samo dvadesetak godina nije se pridavalo toliko pozornosti fenomenu sagorijevanja kao danas, međutim, koncept ima dugu tradiciju i istražuje se desetljećima (12). Istraživanja u ovom području rastu, kao i interes stručnjaka usmjerenih na mentalno zdravlje vezano uz rad što se najbolje može potkrijepiti trendom koji je vidljiv u broju objavljenih radova.

Povezano sa sociodemografskim karakteristikama brojne su studije pokazale da dob može biti jedan od čimbenika povezanih s profesionalnim sagorijevanjem.

vision of the International Classification of Diseases (ICD-11) (17).

The Maslach Burnout Inventory (MBI), a validated questionnaire (18) which was first operationalized in the 1980s by Maslach et al. and which is considered a standard research tool in this field, is used for the purpose of measuring burnout. The questionnaire was specially designed to assess the three-dimensional experience of burnout: emotional exhaustion, depersonalization and reduced personal accomplishment (19), as opposed to the Oldenburg Burnout Inventory (OLBI) which was applied in this study and which assesses two dimensions: exhaustion and disengagement (20). In general, the feeling of reduced accomplishment was omitted from the primary dimensions of burnout in the later works, and is considered to be its consequence. On the other hand, exhaustion and depersonalization or psychological distancing from one's work are key dimensions of this syndrome (6), and are important for differential diagnostics where the primary goal is to distinguish burnout from chronic fatigue or work-related depression (21).

Only twenty years ago, the burnout phenomenon did not receive as much attention as it receives today, however, the concept has a long tradition and has been researched for decades (12). Research in this field is growing, as is the interest of experts focused on work-related mental health, which can be best supported by the trend that is observable in the number of works published.

In relation to sociodemographic characteristics, numerous studies have shown that age can be one of the factors associated with professional burnout.

It was noted that burnout mainly affects nurses under the age of 35 (22, 23), and emphasis was placed on the need to take into account the fact that young nurses represent the largest percentage of medical staff working in nursing homes (24, 25). Among women, burnout is most often present between the ages of 20 and 35, and after the age of 55 (26). Younger nurses who are at the start of their careers may experience more stress

Napominje se da sagorijevanje uglavnom pogađa medicinske sestre mlađe od 35 godina (22, 23) te se naglašava da treba uzeti u obzir kako su upravo mlađe medicinske sestre najveći postotak medicinskog osoblja prisutnog u domovima (24,25). Kod žena je najviše sagorijevanje prisutno u dobi od 20 do 35 godina i nakon 55. godine (26). Mlađe medicinske sestre, koje su na početku svoje karijere, mogu biti pod većim stresom zbog prilagodbe na zahtjevno radno okruženje, visoki tempo rada uz češći noćni rad i nedostatak iskustva u suočavanju s teškim situacijama (27). Starije medicinske sestre mogu biti izložene sagorijevanju zbog dugogodišnjeg rada, akumuliranog stresa i nedostatka promocija ili napredovanja u karijeri (28), dok neki autori tvrde da dob nije značajno povezana sa sagorijevanjem (29-31).

Kod istraživanja bračnog statusa, pojedina istraživanja ukazuju da je razina sagorijevanja kod udanih medicinskih sestara niža nego kod neudanih, odnosno da je kod samaca viša nego kod oženjenih. Mnoga istraživanja pokazuju da medicinske sestre i tehničari koji žive sami ili imaju problema u partnerskim odnosima mogu biti izloženiji emocionalnom iscrpljivanju i većem riziku za nastanak profesionalnog sagorijevanja (32), dok se kod nekih istraživanja nije pronašla značajnu povezanost između varijabli sagorijevanja i bračnog statusa (33), jer se smatra da na parove pozitivno utječe siguran i podržavajući način života koji im pruža obiteljsko okruženje (34), odnosno dostupnost socijalne podrške.

Što se tiče variable obrazovanja, istraživanja pokazuju da su više razine sagorijevanja povezane s medicinskim sestrama niže razine obrazovanja, jer se u svom radu mogu suočiti sa složenim medicinskim zadacima i donošenjem odluka što može rezultirati većim stresom i osjećajem nesigurnosti u vlastite sposobnosti (35,36). Zdravstveni radnici mogu biti skloniji ozbiljnom sagorijevanju ako nisu u mogućnosti unaprijediti svoje obrazovanje ili ako su to učinili, a njihov je posao ostao isti (35). Manja je

because they are adapting to a demanding working environment and a high working pace with more frequent night work, and they lack experience in dealing with difficult situations (27). Older nurses may be exposed to burnout due to their long-term work, accumulated stress and lack of promotions or career advancement (28), while some authors claim that there is no significant correlation between age and burnout (29-31).

When it comes to researching marital status, some studies have shown that the level of burnout among married nurses is lower than among unmarried nurses, i.e. that it is higher among single individuals than among those who are married. Many studies have shown that nurses and technicians who live alone or have problems in their partner relationships may be more exposed to emotional exhaustion and are at a higher risk of professional burnout (32), while some studies did not find a significant correlation between burnout variables and marital status (33) because it is considered that couples are positively influenced by a safe and supportive lifestyle provided by the family environment (34), i.e. the availability of social support.

As regards the education variable, studies have shown that higher levels of burnout are associated with nurses with lower levels of education, because they may face complex medical tasks and decision-making situations in their work, which can result in higher stress levels and a sense of insecurity in their own abilities (35, 36). Healthcare workers may be more prone to severe burnout if they are unable to further their education or if they have done so, but their job has remained the same (35). Nurses with a master's degree are less likely to report severe burnout than nurses with a high school education (37), because a higher academic degree in nursing is associated with lower odds of developing professional burnout due to greater expertise and confidence in performing their duties (38). The connection between education levels and burnout can also be observed in other professions, and it is related to job complexity, difficulty of tasks performed and autonomy in one's work (39).

vjerojatnost da će visoko sagorijevanje prijaviti medicinske sestre s magisterijem za razliku od sestara na razini srednjoškolskog obrazovanja (37), jer je viši akademski stupanj u sestrinstvu povezan s manjim izgledima za profesionalno sagorijevanje zbog veće stručnosti i samopouzdanja u obavljanju svojih dužnosti (38). Veza između razine obrazovanja i sagorijevanja prisutna je i u drugim profesijama, a povezana je uz složenost poslova, izazovnost zadataka te autonomiju u radu (39).

Radni staž odnosi se na ukupno razdoblje provedeno na radnom mjestu uključujući sve prethodne radne pozicije te je često povezan sa sagorijevanjem medicinskih sestara. One mlađe od 27 godina s radnim stažem manjim od četiri godine pokazuju visoke razine sagorijevanja (40). Što osoblje duže radi, njihova razina zadovoljstva i postignuća u vezi s poslom je niža, jer dugogodišnjim radnim iskustvom može biti izloženo većem riziku od sagorijevanja zbog akumuliranog stresa, emocionalnog iscrpljivanja i fizičkog napora koji dolazi s dugotrajnim radom u zahtjevnom okruženju zdravstvene skrbi (41). Zato se u cilju smanjenja sagorijevanja te zbog vlastite dobrobiti mora osvijestiti i temeljito razumjeti fenomen profesionalnog sagorijevanja, kako samih medicinskih sestara, tako i uprave zdravstvenih i socijalnih ustanova (42).

Uspoređujući dobivene podatke raznih istraživanja te povezanosti sociodemografskih značajki s profesionalnim sagorijevanjem, zaključci autora su različiti i često se ne podudaraju.

CILJ ISTRAŽIVANJA

Cilj istraživanja je opisati pojavnost i izraženost profesionalnog sagorijevanja kod medicinskih sestara/tehničara i njegovateljica/njegovateljica zaposlenih u hrvatskim i slovenskim domovima za starije osobe, usporediti ih te utvrditi odnos dobi, spola, bračnog statusa, obrazovanja i radnog staža s profesionalnim sagorijevanjem.

Length of service refers to the total period spent at a workplace, including all previous positions, and is often associated with burnout among nurses. Nurses under 27 years of age with less than four years of work experience display high levels of burnout (40). The longer the staff work, the lower are their levels of job satisfaction and achievement, because long-term work experience may expose them to a greater risk of burnout due to accumulated stress, emotional exhaustion and physical strain that come with long-term work in the demanding healthcare environment (41). It is, therefore, important to bring awareness to and thoroughly understand the phenomenon of professional burnout both among the nurses themselves and among the management of health and social care institutions, in order to reduce burnout and ensure the individuals' own well-being (42).

When comparing the data obtained from various studies and the connection of sociodemographic features with professional burnout, the conclusions of authors differ and often do not coincide.

AIM

The aim of the study is to describe the incidence and severity of professional burnout among the nurses/technicians and caregivers employed in Croatian and Slovenian nursing homes, to compare them and to determine how age, gender, marital status, education and length of service are associated with professional burnout.

METHODOLOGY

Participants

A total of 436 participants took part in the study. Requests were sent via e-mail to the addresses of nursing homes in Croatia and Slovenia. Directors, head nurses/technicians and health care managers received the requests in which they were informed about the method of conducting

Sudionici

U istraživanju je sudjelovalo 436 sudionika. Zamolbe su poslone putem elektroničke pošte na adrese domova za starije i nemoćne osobe u Hrvatskoj i Sloveniji. Ravnatelji, glavne medicinske sestre / tehničari te voditelji zdravstvene njege zaprimili su zamolbe u kojima im je objašnjeno na koji će se način provoditi istraživanje. Rukovoditelji su imali zadaću prosljediti upitnike te potaknuti medicinske sestre / tehničare na ispunjavanje.

Podatci kažu da je u Hrvatskoj sudjelovalo 240 sudionika zaposlenih u domovima za starije osobe [Ž=221 (92 %); M=14 (6 %); neodgovoreno = 4 (2 %)] te 196 sudionika u Sloveniji [Ž=181 (92 %); M=15 (8 %)].

Zbog izrazite razlike u broju muških i ženskih sudionika u hrvatskom i slovenskom uzorku, statističke analize vezane uz spol nisu provedene te ovaj cilj istraživanja nije ispunjen.

Radni staž bio je sličan u obje države. Kod sudionika u hrvatskim domovima za starije osobe iznosio je od tri mjeseca do 42 godine, dok je medijan iznosio 18 godina. Kod sudionika u slovenskim domovima bio je od tri mjeseca do 43 godine, dok je medijan bio 15 godina.

Bračni status kod hrvatskog uzorka: 133 sudionika bilo je u *braku* (55 %), 51 (21 %) bio je u *vezi*; *samaca* je bilo 26 (10 %), *rastavljenih* 22

the study. The managers' task was to forward the questionnaires and encourage the nurses/technicians to complete them.

The data show that the Croatian sample included a total of 240 participants working in nursing homes [F=221 (92%); M=14 (6%); not completed = 4 (2%)], while the Slovenian sample included 196 participants [F= 181 (92%); M=15 (8%)].

Due to a significant difference in the number of male and female participants both in the Croatian and Slovenian samples, statistical analyses relating to gender were not conducted and this research goal was not fulfilled.

The length of service was similar in both countries. For participants in Croatian nursing homes, it ranged from three months to 42 years, while the median was 18 years. For participants in Slovenian nursing homes, it ranged from three months to 43 years, while the median was 15 years.

As regards the marital status in the Croatian sample, 133 participants were *married* (55%), 51 (21%) were in *a relationship*; 26 (10%) were *single*, 22 (9%) were *divorced* and eight (3%) were *widowed*. In the Slovenian sample, 86 participants were *married* (44% of the sample), while a total of 76 (39%) were in *a relationship*. A total of 21 (10%) participants were *single*; nine were *divorced* (4%), and four (2%) were *widowed*.

The Croatian and Slovenian samples mostly differ in the percentages of the participants involved in relationships, which amounted to 39% in the Cro-

TABLICA 1. Frekvencije i postotci sudionika u istraživanju iz Hrvatske (N=240) i Slovenije (N=196) prema potkategorijama varijabli dobi i obrazovanja

TABLE 1. Frequencies and percentages of study participants from Croatia (N=240) and Slovenia (N=196) according to the sub-categories of age and education variables

	Dob f (%) kategorije u godinama / Age f (%) categories according to age					Obrazovanje f (%) / Education f (%)				
	18-24	25-33	34-44	45-54	55- 65	Njegovatelji / Caregivers	SSS / High School	Bacc. med. techn.	Mag. med. techn.	Ostalo / Other
Hrvatska / Croatia	31	40	56	69	44	76	99	35	12	18
	13%	17%	23%	29%	18%	32%	41%	15%	5%	7,5%
Slovenija / Slovenia	16	53	49	53	25	29	77	74	5	11
	8%	23%	25%	23%	13%	15%	39%	38%	2%	6%

(9 %) i *udovaca/ica* osam (3 %). Kod slovenskog uzorka 86 sudionika je u *braku* (44 %) uzorka, dok je u *vezi* ukupno 76 (39 %). U skupini *samaca* je 21 (10 %); *rastavljenih* je devet (4 %) te *udovaca/ica* četiri (2 %).

Hrvatski i slovenski uzorak se u najvećem dijelu razlikuju s obzirom na sudionike u vezi gdje ih u hrvatskom uzorku ima 39 %, dok ih je u slovenskom 21 %. U uzorak su bile uključene medicinske sestre/tehničari svih razina obrazovanja te njegovateljice/njegovatelji. Hrvatski i slovenski uzorak ispitanika s obzirom na udio pojedinih razina obrazovanja razlikuju se kod njegovateljica gdje u hrvatskim domovima one čine 32 % uzorka, dok je u slovenskim domovima taj udio svega 15 %. Bacc. med. techn. u hrvatskim domovima čine 15 %, a u slovenskim 38 % uzorka, dok je udio mag. med. techn. u hrvatskom uzorku 5 %, a u slovenskom svega 2 %.

Instrumenti

The Oldenburg Burnout Inventory (OLBI) – upitnik sagorijevanja koji je validiran na hrvatskom uzorku od 3010 nastavnika (43), preuzet je od autora Demerouti i Bakker (44) te preveden na hrvatski jezik metodom dvostrukog prijevoda. Upitnik mjeri ukupni intenzitet, kao i dvije dimenzije profesionalnog sagorijevanja, iscrpljenost i otuđenost. Sastoji se od ukupno 16 tvrdnji s kojima se ispitanik mogao složiti ili ne složiti te odabrati na Likertovoj 4-stupanjskoj ljestvici odgovor, odnosno broj za koji smatra da odgovara njegovom stanju:

1 = Uopće se ne slažem; 2 = Ne slažem se; 3 = Slažem se; 4 = Potpuno se slažem.

Ukupni rezultat na upitniku može se formirati kao zbroj odgovora na čestice i tada je ukupni raspon od 16 do 64 ili kao prosječan rezultat po čestici pa je ukupan rezultat moguć u rasponu od 1 do 4, gdje se u oba slučaja mora napraviti prethodno obrnuto bodovanje pozitivnih formuliranih čestica. Viši ukupni rezultat podrazumijeva viši stupanj sagorijevanja na poslu. U

atian sample, and 21% in the Slovenian sample. Nurses/technicians of all levels of education, as well as caregivers, were included in the sample. The Croatian and Slovenian samples of respondents when it came to the share of different levels of education differed among caregivers, i.e. in Croatian nursing homes they made up 32% of the sample, while in Slovenian nursing homes that share was only 15%. The share of bacc. med. techn. in Croatian nursing homes was 15%, and in Slovenian nursing homes they made up 38% of the sample, while the share of mag. med. techn. in the Croatian sample was 5%, while in the Slovenian sample it was only 2%.

Instruments

The Oldenburg Burnout Inventory (OLBI) – burnout questionnaire validated on a Croatian sample of 3010 teachers (43), was taken from the authors Demerouti and Bakker (44) and translated into Croatian using the double translation method. The questionnaire measures the total intensity, as well as the two dimensions of professional burnout, exhaustion and disengagement. It consists of a total of 16 items with which the respondent could agree or disagree, and could then select an answer on the provided 4-point Likert scale, i.e. they could select the number that they believe corresponds to their condition:

1 = Strongly disagree; 2 = Disagree; 3 = Agree; 4 = Strongly agree.

The total score on the questionnaire can be formed as the sum of the answers provided for the items and then the total range spans from 16 to 64, or as an average score per item, in which case the total score is achievable in the range from 1 to 4. In both cases a previous reverse scoring of the positively formulated items shall be performed. A higher overall score implies a higher degree of burnout at work. In this study, we used the total score of the average per item. The scores can also be presented through the categories of professional burnout levels. Since there are no generally accepted threshold values for categories

ovom istraživanju koristili smo ukupan rezultat prosjeka po čestici. Rezultate je moguće prikazati i preko kategorija razine profesionalnog sagorijevanja. Budući da u literaturi nema opće prihvaćenih graničnih vrijednosti za kategorije niti kliničkih validacija, koristili smo uz upute o bodovanju navedenih graničnih vrijednosti za kategorije razina profesionalnog sagorijevanja: *low* = nisko ($\leq 1,62$), *medium* = srednje (1,63 do 2,67) i *high* = visoko ($\geq 2,68$) prema Delgadillo i sur. (45).

Indeks pouzdanosti upitnika OLBI izražen Cronbach Alpha-om u hrvatskom uzorku iznosio je 0,87, a u slovenskom 0,85.

Anketni upitnik sastavili su autori za opsežnije istraživanje i sadrži pitanja o sociodemografskim značajkama. Iz tog su upitnika za potrebe ovog rada preuzete četiri značajke: dob, bračni status, obrazovanje i radni staž medicinskih sestara/ tehničara. Varijable radnih uvjeta i drugih okolinskih faktora nismo uzeli u ovo istraživanje jer su nas zanimale samo demografske varijable.

Postupak

Za prikupljanje podataka koristila se *online* metoda anketiranja putem anketnog upitnika *Google Forms*, a podatci su se prikupljali na prigodnom uzorku medicinskih sestara/tehničara svih razina obrazovanja te njegovateljica. U Hrvatskoj je ispitivanje provedeno u deset, a u Sloveniji u devet gradova u kojima su medicinske sestre pristale na ispunjavanje upitnika. Za dozvolu istraživanja u Hrvatskoj se kontaktirao Gradski ured za socijalnu zaštitu, zdravstvo, branitelje i osobe s invaliditetom Grada Zagreba koji je dao dozvolu za istraživanje u 10 državnih domova na području Grada Zagreba, a isti je princip primijenjen za Zadarsku i Istarsku županiju.

Dozvolu za istraživanje u slovenskim domovima odobravali su ravnatelji ustanova. Oni su

or clinical validations in the literature, along with the scoring instructions, we used the following specified threshold values for professional burn-out level categories:

low (≤ 1.62), medium (1.63 to 2.67) or high (≥ 2.68), according to Delgadillo et al. (45).

The reliability index of the OLBI questionnaire, expressed by Cronbach's Alpha coefficient, amounted to 0.87 in the Croatian sample, and 0.85 in the Slovenian sample.

The survey questionnaire was compiled by the authors for the purpose of conducting a more extensive study and it contains questions about the sociodemographic characteristics. Four characteristics were taken from this questionnaire for the purposes of this paper: age, marital status, education and length of service of nurses/technicians. We did not consider the variables of working conditions and other environmental factors in this study because we were only interested in exploring the demographic variables.

Procedure

The online method of surveying by means of a Google Forms survey questionnaire was used for data collection, and the data were collected from a convenience sample of nurses/technicians of all levels of education and caregivers. The survey was conducted in ten cities in Croatia and nine cities in Slovenia, where nurses agreed to fill out the questionnaire. In order to obtain the research permits in Croatia, we contacted the City of Zagreb – City Office for Social Protection, Health, War Veterans and People with Disabilities which issued the permit for research in 10 state nursing homes in the area of the City of Zagreb, and the same principle was applied in the Zadar and Istria Counties.

The research permits in Slovenian nursing homes were approved by the directors of the institutions. They forwarded the request to the head nurses/technicians and health care managers who were asked to further communicate the information and encourage their colleagues to fill

zamolbu prosljeđivali glavnim medicinskim sestrama/tehničarima te voditeljima zdravstvene njege koji su bili zamoljeni za daljnji prijenos informacija i animiranje radnih kolegica i kolega na ispunjavanje upitnika. Ispitanicima se uz zamolbu i objašnjenje o istraživanju navela poveznica na koju mogu pristupiti svojim mobitelom ili računalom putem nekih trenutnih aplikacija *Viber, Messenger, WhatsApp* i sl. Upitnik se ispunjavao dobrovoljno i anonimno, a samo ispunjavanje i slanje istom ispituvaču imalo je isto značenje kao i informirani pristanak za sudjelovanje u istraživanju.

REZULTATI

Rezultati su prvo prikazani prema ukupnom rezultatu na upitniku profesionalnog sagorijevanja – OLBI (prosjeak po čestici), kao i prema mjeri kategorija prema intenzitetu profesionalnog sagorijevanja za Hrvatsku i Sloveniju i njihova statistička usporedba te onda i analiza za obje skupine sudionika prema istraživanim demografskim varijablama.

a) Ukupni rezultat na upitniku profesionalnog sagorijevanja (prosjeak po čestici)

Budući da su zadovoljene sve pretpostavke za provedbu parametrijskog testa s ciljem utvrđivanja razlike između prosječnog rezultata ispitanika iz Hrvatske i Slovenije, proveden je *t-test* rezultati kojega pokazuju da se prosječni rezultati na upitniku OLBI između ispitanika iz Hrvatske i onih iz

out the questionnaire. Along with the request and explanation concerning the research, the respondents were given a link that they could access on their mobile phones or computers via an application currently in use, such as *Viber, Messenger, WhatsApp*, etc. They filled out the questionnaire anonymously and on a voluntary basis, and the action of filling out the questionnaire and sending it back to the researcher also served as an informed consent to participate in the study.

RESULTS

The results were first presented according to the total score on the professional burnout questionnaire - OLBI (average per item), as well as by the measure of categories according to the intensity of professional burnout both for Croatia and Slovenia, their statistical comparison, and then through an analysis concerning both groups of participants according to the researched demographic variables.

a) Total score on the professional burnout questionnaire (average per item)

Since all the prerequisites for the implementation of the parametric test with the aim of determining the difference between the average score of the respondents from Croatia and Slovenia were met, a *t-test* was conducted the results of which showed that there was no significant statistical difference in the average scores on the OLBI questionnaire between the respondents from Croatia and those from Slovenia $t(434) = .97, p = .331$.

TABLICA 2. Deskriptivna statistika ukupnog rezultata na upitniku OLBI za sudionike u istraživanju iz Hrvatske (N=240) i Slovenije (N=196)

TABLE 2. Descriptive statistics of the total score achieved on the OLBI questionnaire for study participants from Croatia (N=240) and Slovenia (N=196)

	M	SD	CI (95 %) donja granica / CI (95%) lower limit	CI (95 %) gornja granica / CI (95%) upper limit	C	Min	Max	Skewness	Kurtosis	Shapiro-Wilk p
OLBI ukupni rezultat HR / OLBI total score CRO	2.57	.47	2.51	2.64	2.56	1.31	3.88	0.04	-0.03	.165
OLBI ukupni rezultat SLO / OLBI total score SLO	2.59	.44	2.52	2.65	2.56	1.19	3.81	-0.025	0.59	.229

Slovenije statistički značajno ne razlikuju $t(434) = .97, p = .331$.

Iz tablice se vidi da se distribucije ukupnog rezultata na upitniku OLBI kod sudionika iz Hrvatske i Slovenije ne razlikuju statistički značajno od normalne (prema testu Shapiro-Wilk). Većina rezultata u hrvatskom dijelu (oko 70 %) uzorka nalazi se u rasponu prosječnog rezultata po čestici na OLBI-u od 2,1 do 3,04, dok se kod slovenskog uzorka nalazi u rasponu od 2,15 do 3,03.

b) Rezultati ispitanika na upitniku OLBI izraženi u kategorijama razine profesionalnog sagorijevanja

S ciljem utvrđivanja postojanja statistički značajnih razlika između frekvencija hrvatskih i slovenskih medicinskih sestara unutar pojedinih kategorija razina profesionalnog sagorijevanja proveden je hi-kvadrat test koji je pokazao da statističke razlike ne postoje (hi-kvadrat 2, $N = 436 = 0.35, p = .839$).

c) Rezultati prema demografskim značajkama

Dob

U istraživanju su se uspoređivali rezultati hrvatskog dijela uzorka na upitniku OLBI između pet dobnih skupina: 18-24 ($N=31$), 25-33

As can be seen in the table, the distributions of the total score on the OLBI questionnaire among participants from Croatia and Slovenia did not significantly statistically differ from normal (according to the Shapiro-Wilk test). Most of the results in the Croatian part (approx. 70%) of the sample were in the range of the average score per item on the OLBI questionnaire, from 2.1 to 3.04, while in the Slovenian sample they were in the range from 2.15 to 3.03.

b) Respondents' scores on the OLBI questionnaire expressed in professional burnout level categories

With the aim of determining the existence of statistically significant differences between the frequencies of Croatian and Slovenian nurses within individual categories of professional burnout levels, a Chi-square test was conducted which showed that there were no statistical differences (Chi-square 2, $N = 436 = 0.35, p = .839$).

c) Scores according to demographic characteristics

Age

The scores in the Croatian part of the sample on the OLBI questionnaire were compared among five age groups in the study: 18-24 ($N=31$), 25-33 ($N=40$), 34-44 ($N=56$), 45-54 ($N=69$) and 55-65 ($N=44$). According to the one-way ANOVA

TABLICA 3. Deskriptivna statistika rezultata sudionika u istraživanju prema kategorijama razine profesionalnog sagorijevanja na upitniku OLBI u hrvatskim i slovenskim domovima za starije osobe

TABLE 3. Descriptive statistics of the scores of the study participants according to the professional burnout level categories on the OLBI questionnaire in Croatian and Slovenian nursing homes

Mjesto rada / Place of work		Niska / Low	Srednja / Medium	Visoka / High	Ukupno / Total
Hrvatska / Croatia	Opažene frekvencije / Observed frequencies	5	124	111	240
	Postotak unutar skupine / Percentage within group	2%	52%	46%	100%
Slovenija / Slovenia	Opažene frekvencije / Observed frequencies	3	98	95	196
	Postotak unutar skupine / Percentage within group	1.5%	50%	48.5%	100%

TABLICA 4. Deskriptivna statistika rezultata sudionika iz Hrvatske i Slovenije na upitniku OLBI prema demografskim varijablama i njihovim potkategorijama te rezultati ANOVA-e između potkategorija unutar pojedinih varijabli**TABLE 4.** Descriptive statistics of the scores of participants from Croatia and Slovenia on the OLBI questionnaire according to demographic variables and their subcategories, as well as ANOVA results between subcategories within individual variables

	Hrvatska / Croatia					Slovenija / Slovenia				
	N	M	SD	Schapiro Wilk p	ANOVA	N	M	SD	Schapiro Wilk p	ANOVA
Dob / Age 18-24	31	2.64	.47	.230	$F=1.537$ (df)=4 $p=.192$	16	2.45	.53	.630	$F = 2.789$ (df)=4 $p =.028$
Dob / Age 25-33*	40	2.53	.50	.763		53	2.46	.43	.123	
Dob / Age 34-44*	56	2.53	2.65	.141		49	2.71	.50	.825	
Dob / Age 45-54	69	2.50	.50	.390		53	2.63	.38	.631	
Dob / Age 55-65	44	2.72	.40	.570		25	2.65	.27	.251	
Bračni status - samci / Marital status - single	26	2.62	.54	.813	$F=2.273$ (df)=3 $p=.081$	21	2.44	.35	.342	$F=1.199$ (df)=3 $p=.311$
Bračni status - u braku / Marital status-married	133	2.64	2.72	.404		86	2.60	.39	.522	
Bračni status - u vezi / Marital status - in a relationship	51	2.51	.47	.212		76	2.60	.51	.907	
Bračni status - rastavljeni/udovci / Marital status - divorced/widowed	30	2.41	.41	.519		13	2.71	.40	.281	
Obrazovanje - njegovatelji / Education - caregivers	76	2.62	.54	.698	$F=.390$ (df)=2 $p=.677$	29	2.53	.37	.702	$F=2.403$ (df)=2 $p=.093$
Obrazovanje - SSS / Education - high school	99	2.55	.45	.156		77	2.55	.41	.327	
Obrazovanje - bacc./mag. / Education - bacc./mag.	47	2.57	.45	.155		79	2.68	.44	.556	
Radni staž / Length of service	240	18	11.5	<.001		196	17.58	12.44	<.001	

*Statistički značajna razlika između tih dviju dobnih skupina kod slovenskih sudionika
/ *statistically significant difference between these two age groups among Slovenian participants

(N=40), 34-44 (N=56), 45-54 (N=69) i 55-65 (N=44). Jednosmjerni ANOVA test pokazao je da nema razlika u intenzitetu profesionalnog sagorijevanja između različitih dobnih skupina $F(4)=1.537$, $p=.192$. I u slovenskom uzorku uspoređivali su se rezultati na upitniku OLBI između pet dobnih skupina: 18-24 (N=16), 25-33 (N=53), 34-44 (N=49), 45-54 (N=53) i 55-65 (N=25). Jednosmjerni ANOVA test pokazao je da se dobne skupine razlikuju prema rezultatu na upitniku profesionalnog sagorijevanja $F(4) = 2,789$, $p = .028$, dok je kvadrirana eta = 0,05, što prema Cohenovoj konvenciji (46) upućuje na malu veličinu učinka i znači praktično nebitnu razliku između dobnih skupina. Istovremeno se ta statistička razlika prema Bonferroni *post hoc* testu temelji samo na razlici između dviju dobnih skupina, "25-33" i "34-44" i to u

test, there were no differences in the intensity of professional burnout between different age groups $F(4)=1.537$, $p =.192$. The scores on the OLBI questionnaire in the Slovenian sample were compared among five age groups as well: 18-24 (N=16), 25-33 (N=53), 34-44 (N=49), 45-54 (N= 53) and 55-65 (N=25). According to the one-way ANOVA test, the age groups differed according to the score on the professional burnout questionnaire $F(4) = 2.789$, $p = .028$, while the eta squared was = 0.05, which according to Cohen's convention (46) indicates a small effect size and represents a practically insignificant difference between age groups. At the same time, this statistical difference according to the Bonferroni *post hoc* test is based only on the difference between two age groups, "25-33" and "34-44", in the direction of higher scores on the OLBI questionnaire of the "25-33" age group, while no

smjeru većih rezultata na upitniku OLBI do-
ne skupine "25-33", dok između ostalih dobnih
skupina značajne razlike nisu utvrđene.

Bračni status

- a) S ciljem usporedbe rezultata ispitanika ra-
zličitog bračnog statusa na upitniku OLBI,
usporedili smo pet kategorija bračnog
statusa kod *hrvatskog dijela uzorka*: *samce*
(N=26), *u braku* (N=133), *u vezi* (N=51), *ra-*
stavljene (N=22) i *udovice/udovci* (N=8). U
cilju uravnoteženja broja ispitanika prema
potkategorijama i mogućnosti komparacije
sa slovenskim uzorkom spojene su katego-
rije "rastavljenih" i "udovaca" u jednu ka-
tegoriju koju smo onda koristili u analizi.
Jednosmjerni ANOVA test pokazao je da
nema značajnih razlika između ispitanika
različitog bračnog statusa s obzirom na
profesionalno sagorijevanje $F(3) = 2,273, p = .081$
- b) U *slovenskom uzorku* sudionika s ciljem
utvrđivanja odnosa varijable bračnog statu-
sa i varijable profesionalnog sagorijevanja
usporedilo se pet kategorija: *samci* (N=21),
u braku (N=86), *u vezi* (N=76), *rastavljeni*
(N=9) i *udovice/udovci* (N=4). Kao i kod hr-
vatskog uzorka, u cilju uravnoteženja broja
sudionika prema potkategorijama, spojene
su kategorije "rastavljenih" i "udovaca" u
jednu kategoriju koju smo onda koristili u
analizi. Rezultati jednosmjernog ANOVA
testa pokazali su da nema razlika izme-
đu rezultata sudionika različitog bračnog
statusa na upitniku OLBI kod slovenskog
uzorka $F(3) = 1,199, p = .311$.

Obrazovanje

- a) S ciljem utvrđivanja odnosa varijable obra-
zovanja i varijable profesionalnog sagorije-
vanja u *hrvatskom dijelu uzorka* počeli smo s
usporedbom pet kategorija različitog stup-
nja obrazovanja: *njegovatelji* (N=76), me-

significant differences were found among other
age groups.

Marital status

- a) In order to compare the scores of respon-
dents of different marital status on the OLBI
questionnaire, we compared five categories
of marital status in *the Croatian part of the*
sample: *single* (N=26), *married* (N=133), *in a*
relationship (N=51), *divorced* (N=22) and *wid-*
owed (N=8). In order to balance the number
of respondents per subcategory and to allow
comparisons with the Slovenian sample, the
categories of "divorced" and "widowed" were
combined into one category which was then
used in the analysis. The results of the one-
way ANOVA test showed that there were no
significant differences between respondents
of different marital status when it comes to
professional burnout $F(3) = 2.273, p = .081$
- b) In *the Slovenian sample* of participants, with
the aim of determining the correlation be-
tween the marital status variable and the
professional burnout variable, five catego-
ries were compared: *single* (N=21), *married*
(N=86), *in a relationship* (N=76), *divorced*
(N=9) and *widowed* (N=4). As with the Croa-
tian sample, in order to balance the number
of participants per subcategory, the catego-
ries "divorced" and "widowed" were combined
into one category which was then used in the
analysis. The results of the one-way ANOVA
test showed that there were no differences
between the results of participants of differ-
ent marital status on the OLBI questionnaire
in the Slovenian sample $F(3) = 1.199, p = .311$.

Education

- a) In order to determine the relationship be-
tween the variable of education and the
variable of professional burnout in *the Cro-*
atian part of the sample, we started with a
comparison of the five categories of different
education levels: *caregivers* (N=76), *nurses/*
technicians with a high school level of educa-

dicinske sestre/tehničari na srednjoškolskoj razini obrazovanja (N=99), bacc. med. techn. (N=35), mag. med. techn. (N=12) i ostali (N=18). S ciljem uravnoteženja broja sudionika prema pojedinim kategorijama spojili smo kategorije bacc. i mag. med. techn. u jednu, uklonili kategoriju „ostali“ koji se nisu izjasnili o svom stupnju obrazovanja te u konačnici u obradi rezultata radili s tri kategorije (njegovatelji, medicinske sestre/tehničari na srednjoškolskoj razini obrazovanja te bacc. med. techn./mag. med. techn). Rezultati jednosmjernog ANOVA testa pokazali su da se ispitanici različitog stupnja obrazovanja u hrvatskom dijelu uzorka statistički značajno ne razlikuju s obzirom na intenzitet profesionalnog sagorijevanja $F(2) = .390, p = .677$.

- b) S ciljem utvrđivanja odnosa varijable obrazovanja i varijable profesionalnog sagorijevanja, u slovenskom se uzorku također usporedilo pet kategorija različitog stupnja obrazovanja: njegovatelji (N=29), medicinske sestre/tehničari na srednjoškolskoj razini obrazovanja (N=77), bacc. med. techn. (N=74), mag. med. techn. (N=5) i ostali (N=11) prema istom principu spajanja kategorija bacc. i mag. med. techn. i bez kategorije „ostali“ kao i kod hrvatskog uzorka. Rezultati jednosmjernog ANOVA testa su kao i u hrvatskom uzorku pokazali da se sudionici različitog stupnja obrazovanja statistički značajno ne razlikuju s obzirom na intenzitet profesionalnog sagorijevanja $F(2) = 2,403, p = .093$.

Radni staž

- a) S ciljem utvrđivanja povezanosti između varijable radnog staža i varijable profesionalnog sagorijevanja, a budući da distribucija varijable radnog staža u hrvatskom uzorku značajno odstupa od normalne (Shapiro-Wilk, tablica 5), koristio se neparametrijski Spearmanov test povezanosti.

tion (N=99), bacc. med. techn. (N=35), mag. med. techn. (N=12) and others (N=18). In order to balance the number of participants per individual category, we combined the bacc. and mag. med. techn. categories into one category, removed the category “others” who did not declare their level of education, and we ultimately observed three categories when processing the results (caregivers, nurses/technicians with a high school level of education, and bacc. med. techn./mag. med. techn.). The results of the one-way ANOVA test showed that there was no statistically significant difference among the respondents of different education levels in the Croatian part of the sample when it comes to the intensity of professional burnout $F(2) = .390, p = .677$.

- b) In order to determine the relationship between the variable of education and the variable of professional burnout, the five categories of different education levels were compared in the Slovenian sample as well: caregivers (N=29), nurses/technicians with a high school level of education (N=77), bacc. med. techn. (N=74), mag. med. techn. (N=5) and others (N=11), following the same principle of combining the bacc. and mag. med. techn. categories and removing the “others” category, as in the case of the Croatian sample. As in the Croatian sample, the one-way ANOVA test results showed that there was no statistically significant difference among participants of different education levels when it comes to the intensity of professional burnout $F(2) = 2.403, p = .093$.

Length of service

- a) In order to determine the connection between the length of service variable and the professional burnout variable, and since the distribution of the length of service variable in the Croatian sample significantly deviated from normal (Shapiro-Wilk, see Table 5), the non-parametric Spearman correlation test was used. It was determined that in the Croatian part of the sample there was no sta-

Utvrđeno je da u hrvatskom dijelu uzorka varijable radnog staža i profesionalnog sagorijevanja nisu statistički značajno povezane - $r_{ho} (238) = 0.03, p = .671$.

- b) Za razliku od većine ostalih varijabli, distribucija varijable radnog staža i u slovenskom uzorku značajno odstupa od normalne (Shapiro-Wilk, tablica 4). Rezultati su pokazali da iako postoji statistički značajna povezanost između radnog staža i rezultata na upitniku OLBI, $r_{ho} (194) = .17, p = .021$, ta je povezanost prema veličini koeficijenta nikakva ili neznatna uz koeficijent determinacije od 0,03 (dakle, samo 3 % zajedničke varijance obih varijabli), dok je i veličina učinka prema Cohenovoj konvenciji mala (r_{ho} manji od 0,2).

RASPRAVA

Sestrinska profesija mora se suočiti sa značajnim izazovima kako bi smanjila prevalenciju sagorijevanja, jednog od sindroma koji najviše utječe na zdravlje medicinskih sestara i ima ozbiljne posljedice, kako za pacijente, tako i ustanove u kojima rade (47). Analizirajući rezultate na upitniku OLBI prema korištenim kriterijima u kategorijama razine profesionalnog sagorijevanja, uočljivo je da gotovo 50 % sudionika u hrvatskom uzorku pripada kategoriji visoke razine profesionalnog sagorijevanja. Vrlo slični rezultati dobiveni su i u slovenskom dijelu uzorka. Statistički značajnih razlika između sudionika iz Hrvatske i onih iz Slovenije s obzirom na intenzitet profesionalnog sagorijevanja kao i prema pripadnosti pojedinim kategorijama razine profesionalnog sagorijevanja nema.

Promatrajući varijablu dobi, između različitih dobnih skupina, u ovom istraživanju u hrvatskom dijelu uzorka značajne razlike nisu utvrđene, dok je u slovenskom uzorku nađena statistički značajna razlika, ali male veličine učinka i to samo između dviju dobnih skupina. Re-

tistically significant correlation between the length of service variable and professional burnout variable - $r_{ho} (238) = 0.03, p = .671$.

- b) As opposed to the majority of other variables, the distribution of the length of service variable significantly deviated from normal in the Slovenian sample as well (Shapiro-Wilk, see Table 4). The results showed that although there was a significant statistical correlation between the length of service and scores on the OLBI questionnaire, $r_{ho} (194) = .17, p = .021$, according to the size of the coefficient, this correlation was nil or insignificant, with a coefficient of determination amounting to 0.03 (therefore, only 3% of the common variance of both variables), while the effect size according to Cohen's convention was small (r_{ho} lower than 0.2).

DISCUSSION

The nursing profession must face significant challenges in order to reduce the prevalence of burnout, one of the syndromes with the greatest effects on the health of nurses, which has serious consequences both for the patients and for the institutions where they work (47). Upon analyzing the results of the OLBI questionnaire according to the used criteria in the categories of professional burnout levels, it is noticeable that almost 50% of the participants in the Croatian sample were placed in the high level of professional burnout category. Very similar results were obtained in the Slovenian part of the sample as well. There were no statistically significant differences between the participants from Croatia and those from Slovenia with regard to the intensity of professional burnout, as well as in terms of belonging to certain categories of professional burnout levels.

In observing the age variable, no significant differences were found in the Croatian part of the sample in this study, while a statistically significant difference was found in the Slovenian sample, however with a small effect size and only between two age groups. The results of other authors are not uniform either. According to some

zultati ostalih autora također nisu ujednačeni. Prema nekim istraživanjima dob medicinskih sestara nije povezana s profesionalnim sagorijevanjem (48), druga potvrđuju da su starije medicinske sestre više izložene profesionalnom sagorijevanju (35,49-52), dok neki autori navode da su profesionalnom sagorijevanju izložene mlađe medicinske sestre (53).

Vežano uz bračni status, medicinske sestre u hrvatskim i slovenskim domovima različitog bračnog statusa, bez obzira jesu li u braku, u vezi, samci ili udovice, ne razlikuju se statistički značajno prema razini profesionalnog sagorijevanja (33,49). Analizirajući istraživanja ostalih autora i ovdje su mišljenja podijeljena. Biti samac ili u braku nije povezano sa sagorijevanjem (54), dok neki navode da je veća prevalencija sagorijevanja među samcima (55,56) i to kod mladih, muških, neoženjenih medicinskih tehničara. Niža razina sagorijevanja je kod oženjenih, ali bez djece (57), dok neka istraživanja navode da je brak varijabla bitna za nastanak sagorijevanja (53).

Uspoređujući rezultate medicinskih sestara/tehničara različitog stupnja obrazovanja počevši od njegovateljica, medicinskih sestara/tehničara na razini srednjoškolskog obrazovanja, bacc. i mag. med. techn. u objema državama, rezultati pokazuju da se oni statistički značajno ne razlikuju. Ovakve nalaze moguće je možda tumačiti i djelovanjem treće varijable (vrsta posla), koja je prikrila pravi odnos varijable obrazovanja i profesionalnog sagorijevanja.

Naime, nerijetko se događa da se medicinske sestre uz rad obrazuju, ali i nakon što steknu viši stupanj obrazovanja, nastavljaju raditi na istom radnom mjestu. Dakle, bez obzira na stupanj obrazovanja, dio sestara radi isti posao i izložene su istim zahtjevima i stresorima. Drugo objašnjenje bilo bi nedovoljna snaga testa zbog čega je i realno postojeće razlike u izražnosti profesionalnog sagorijevanja između potkategorija obrazovanja teško detektirati.

studies, there is no association between the age of nurses and professional burnout (48), other studies confirm that older nurses are more exposed to professional burnout (35, 49-52), while some authors observe that younger nurses experience more exposure to professional burnout (53).

In terms of marital status, there is no significant statistical difference according to the level of professional burnout among the nurses of different marital status who are working in Croatian and Slovenian nursing homes, regardless of whether they are married, in a relationship, single or widowed (33, 49). After analyzing the studies conducted by other authors, it was observed that opinions are divided in this matter as well. On the one hand, there was no association between single or married status and burnout (54), while some authors reported that the prevalence of burnout was higher among single individuals (55, 56), specifically among younger, male, unmarried medical technicians. A lower level of burnout was found in individuals who are married, but without children (57), while some studies indicated that marriage represents an important variable for the occurrence of burnout (53).

Upon comparing the results among nurses/technicians with different levels of education, starting from caregivers, nurses/technicians with a high school education level, bacc. and mag. med. techn. in both countries, the results show that there is no statistically significant difference. Such findings could perhaps be interpreted through the action of a third variable (type of job), which could have obscured the true connection between the education variable and professional burnout.

More precisely, it often happens that nurses undergo additional education while working, but even after obtaining a higher level of education, they continue to work at the same workplace. Therefore, regardless of the level of education, some nurses still perform the same job and are exposed to the same demands and stressors. Another explanation could be seen in an insufficient power of the test, which is why it is difficult to detect real existing differences in the expression

Istraživanja pokazuju da između razine sagorijevanja i sociodemografskih karakteristika kao što je razina obrazovanja, nema značajne povezanosti (33,49,50). Neki autori navode da je viši obrazovni status povezan s višim stupnjem sagorijevanja (58), dok pojedini imaju upravo suprotne zaključke i smatraju da mag. med. techn. na menadžerskim pozicijama imaju nizak stupanj sagorijevanja (59).

Uspoređujući dobivene rezultate vezane uz radni staž ne možemo izvesti jednoznačni zaključak budući da u hrvatskom uzorku nije utvrđena statistički značajna povezanost varijable radnog staža i profesionalnog sagorijevanja, dok je u slovenskom uzorku ta povezanost pozitivna i statistički značajna, ali gledajući i druge statističke parametre osim p , ta povezanost bi se mogla promatrati i kao neznčajna, no na budućim je istraživanjima da utvrde pravu prirodu tog odnosa.

Istraživanja autora su oprečna i kod ove varijable. Dužina radnog staža nema učinak na profesionalno sagorijevanje (49), dok se prema nekim istraživanjima medicinske sestre od šeste godine rada često suočavaju s fizičkim i psihičkim problemima povezanima s radnim pritiskom ili preopterećenjem, signalizirajući početak emocionalne iscrpljenosti i sagorijevanja (50). Osobe koje imaju malo radnog iskustva imaju veliku predispoziciju za nastanak profesionalnog sagorijevanja (55,60).

ZAKLJUČAK

Na našem uzorku sudionika, korištenom metodologijom i instrumentarijem, nismo uspjeli utvrditi značajne razlike unutar demografskih varijabli s obzirom na profesionalno sagorijevanje medicinskih sestara/tehničara u domovima za starije u Hrvatskoj i Sloveniji.

Iako je naše istraživanje provedeno na prigodnim, dostupnim uzorcima zaposlenih u Hrvatskoj i Sloveniji, ono pokazuje da je profesional-

of professional burnout between the subcategories of education.

Studies have shown that there is no significant correlation between the level of burnout and sociodemographic characteristics such as the level of education (33, 49, 50). Some authors state that a higher educational status is associated with a higher degree of burnout (58), while some have reached the exact opposite conclusions and believe that individuals with mag. med. techn. education in managerial positions experience a low degree of burnout (59).

Comparing the results obtained with regard to the length of service, we could not draw an unequivocal conclusion since no statistically significant correlation was observed between the length of service and professional burnout variables in the Croatian sample, while in the Slovenian sample this connection was positive and statistically significant. However, looking at other statistical parameters besides p , this correlation could also be viewed as insignificant, but it is up to future studies to determine the true nature of this relationship.

The studies conducted by different authors are conflicting in terms of this variable as well. On the one hand, the length of service had no effect on professional burnout (49), while according to some studies, nurses from the sixth year of work onward often face physical and psychological problems related to work pressure or overload, thus signaling the beginning of emotional exhaustion and burnout (50). Individuals with little work experience have a high predisposition for the occurrence of professional burnout (55, 60).

CONCLUSION

In our sample of participants, with the methodology and instrumentation used, we were unable to determine significant differences within the demographic variables in terms of professional burnout among nurses/technicians in nursing homes in Croatia and Slovenia.

no sagorijevanje ili engl. *burnout* prisutno među medicinskim sestrama/tehničarima i njegovateljicama/njegovateljima koje rade u domovima za starije osobe. Istraživanje je pokazalo da se oko 50 % sudionika nalazi u kategoriji visoke razine profesionalnog sagorijevanja. Nisu utvrđene značajne razlike između hrvatskog i slovenskog uzorka s obzirom na korištene mjere profesionalnog sagorijevanja. Također, između ispitivanih potkategorija demografskih varijabli (dobi, bračnog statusa i obrazovanja) nisu se pokazale značajne razlike među sudionicima s obzirom na intenzitet profesionalnog sagorijevanja. Za varijablu radnog staža temeljem statističkih pokazatelja iz ovog istraživanja ne možemo jasno reći da je povezana s varijablom profesionalnog sagorijevanja, ali niti odlučno osporiti tu povezanost.

Ograničenja ovog istraživanja u prvom redu proizlaze iz prigodnog uzorka te nedovoljnog broja sudionika u pojedinim demografskim kategorijama. Razlike u broju sudionika u pojedinim kategorijama utjecale su i na valjanost rezultata i snagu testova. To je mogući razlog zbog kojeg nismo utvrdili neke razlike koje smo očekivali. Dakle, uglavnom negativni nalazi dobiveni u ovom istraživanju mogu biti posljedica upravo ovih metodoloških ograničenja koja proizlaze iz malog i homogenog uzorka. Također, nismo uključili varijable koje bi opisale mehanizme koje stoje u podlozi povezanosti sociodemografskih varijabli i profesionalnog sagorijevanja. Buduća istraživanja trebala bi uključiti medijacijske varijable poput konflikta uloga, socijalne podrške ili dostupnih resursa na poslu kako bi objasnili povezanost između sociodemografskih značajki zaposlenih i razine sagorijevanja na poslu.

Kao smjernicu za buduća istraživanja izdvojili bismo potrebu za prikupljanjem podataka na reprezentativnim uzorcima zdravstvenih radnika u domovima za starije te uključivanje individualnih i organizacijskih prediktora sagorijevanja na poslu.

Although our study was conducted on available convenience samples of employees in Croatia and Slovenia, its results have shown that professional burnout is indeed present among the nurses/technicians and caregivers working in nursing homes. The study has shown that approximately 50% of the participants could be placed in the high level professional burnout category. No significant differences were found between the Croatian and Slovenian samples with regard to the professional burnout measures used. Furthermore, in the examined subcategories of demographic variables (age, marital status and education), no significant differences were observed among the participants when it comes to the intensity of professional burnout. For the length of service variable, based on the statistical indicators from this study, we cannot clearly state that it is associated with the professional burnout variable, but we cannot decisively dispute this connection either.

The limitations of this study primarily stem from the convenience sample and the insufficient number of participants in certain demographic categories. Differences in the number of participants in some cases affected the validity of the results and the strength of the tests. This could be a possible reason due to which we did not find some differences that we expected. Therefore, the mostly negative findings obtained in this study may well be the result of these methodological limitations resulting from a small and homogeneous sample. Moreover, we did not include variables that would describe the mechanisms underlying the association between sociodemographic variables and professional burnout. Future studies should include mediating variables such as role conflict, social support or resources available at work in order to explain the association between the sociodemographic characteristics of employees and the level of burnout at work.

As a guideline for future studies, we would like to single out the need for data collection on representative samples of healthcare workers in nursing homes and the inclusion of individual and organizational predictors of burnout at work.

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