

# Diplomski studiji sestrinstva u Hrvatskoj – ima li ih dovoljno ili previše?

## Graduate nursing studies in Croatia – are there enough or too many?

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U Republici Hrvatskoj obrazovanje medicinskih sestara izvodi se na tri razine: srednjoškolskoj, prijediplomskoj i diplomskoj. Nakon završetka srednje škole stječe se titula *medicinska sestra opće njege*, nakon završetka prijediplomskog studija stječe se titula *prvostupnik sestrinstva*, a nakon završetka diplomskog studija stječe se titula *magistar sestrinstva*. Svaka od navedenih razina uključuje zakonom propisana očekivanja i kompetencije koje su za srednjoškolsko i prijediplomsko obrazovanje usklađene s Direktivom Europske unije [1].

Diplomsko obrazovanje medicinskih sestara uvedeno je u Republici Hrvatskoj 2005. godine u sklopu prvog stručnog diplomskog studija *Menadžment u sestrinstvu* koje je izvodilo, a i danas izvodi, Zdravstveno veleučilište u Zagrebu. Kasnije su dodani i drugi specijalistički programi koje je sadržajno, prema svojim procjenama, predlagao izvoditelj studija [2]. Godine 2010. pokrenut je prvi sveučilišni diplomski studij pri Medicinskom fakultetu Sveučilišta u Osijeku koji se sadržajno razlikovao od prethodna tri postojeća studija [3]. Iako su se u početku razlikovale titule nakon završetka studija (nakon stručnog studija dobivala se titula *diplomirana medicinska sestra*, a nakon sveučilišnog studija *magistar/a sestrinstva*), izmjenama Zakona o visokom obrazovanju 2022. godine one su izjednačene<sup>1</sup> [4]. Početna ideja osnutka diplomskih studija bila je osigurati vertikalnu obrazovnu prohodnost medicinskim sestrama koja do tada nije bila moguća. Istovremeno se nije pretpostavilo koliko medicinskih sestara s diplomskim obrazovanjem i s kojim kompetencijama treba sustavima u kojima one rade. Od 2005. do 2023. godine pokrenuto je ukupno 18 programa diplomskih studija koji su sadržajno različiti.

In the Republic of Croatia, nursing education is carried out at three levels: high school, undergraduate, and graduate. After finishing high school, the title of general care nurse is obtained, after completing undergraduate studies, the title of bachelor's degree in nursing is obtained, and after completing graduate studies, the title of master's degree in nursing is obtained. Each of the mentioned levels includes legally prescribed expectations and competencies, which, for high school and undergraduate education, are harmonized with the European Union Directive.

The graduate education of nurses was introduced in the Republic of Croatia in 2005 as part of the first professional graduate study in Nursing Management, which was and still is, conducted by the University of Applied Health Sciences in Zagreb. Later, other specialist programs were added, the contents of which were proposed by the study provider [2]. In 2010, the first university graduate study at the Faculty of Medicine of the University of Osijek was launched, which differed in content from the previous three existing studies [3]. Although at the beginning, the titles after the end of the studies differed (after the professional studies, the title of the graduate nurse was obtained, and after the university studies, the master's degree in nursing), with the amendments of the Act on Higher Education in 2022, they were equalized<sup>1</sup> [4]. The initial idea of establishing graduate studies was to ensure vertical educational mobility for nurses, which was not possible until then. At the same time, it was not assumed how many nurses with graduate education and with what competencies the systems in which they work need. From 2005 to 2023, a total of 18 graduate study programs were launched, which differ in content.

<sup>1</sup> Uz titulu magistra/magistar sestrinstva navodi se oznaka je li završen studij stručni ili sveučilišni studij. / Along with the master's degree in nursing, it is indicated whether the completed study was a professional or university study.

**TABLICA/TABLE 1.** Broj obrazovnih institucija / programa za školovanje medicinskih sestara u Republici Hrvatskoj 2023./2024. / Number of educational institutions / programs for the education of nurses in the Republic of Croatia in 2023/2024.

<b>SREDNJA ŠKOLA / HIGH SCHOOL (broj škola) / (number of schools)</b>	<b>PRIJEDIPLOMSKI STUDIJ / UNDERGRADUATE STUDIES (broj programa) / (number of programs)</b>	<b>PRIJEDIPLOMSKI STUDIJ / GRADUATE STUDY (broj programa) / (number of programs)</b>
25	15	18

Jedan od čestih dodatnih argumenata za pokretanje diplomskih studija sestrinstva, a zatim i povećanje broja studenata na njima, pretpostavka je da će se time osigurati čvršći profesionalni status i autonomija medicinskih sestara, kao i viša kvaliteta sestrinske skrbi. To se u mnogim drugim državama nije pokazalo točnim. Godine 1999. Ann Bradshaw u prikazu i analizi britanskog sestrinstva ukazala je na to da se medicinske sestre ne mogu jasnije profesionalizirati ni autonomno učvrstiti putem isključivo sveučilišnog obrazovanja, već je za to nužno poboljšanje kvalitete i jedinstvenosti neposredne sestrinske skrbi za pacijente [5]. To znači da je sestrinstvo tim autonomnije što se više jačaju kompetencije onih koji su pacijentima najbliži. Dakle, ključno je podizanje kvalitete temeljnog sestrinskog obrazovanja. Najčešće biva upravo suprotno, pa se visoka razina obrazovanja planira za one sestrinske poslove koji su manje vezani za skrb o pacijentima (upravljanje, organizaciju, obrazovanje, znanstveno-istraživački rad), te je primijećeno da su najobrazovanije medicinske sestra zapravo i najudaljenije od pacijenata [6]. Sličan zaključak prikazuju i rezultati istraživanja američkog sestrinskog obrazovanja koje su objavili Benner i sur. 2010. godine [7]. Navedeno pretpostavlja nužnu potrebu za visokoobrazovanim medicinskim sestrama na određenim radnim mjestima i sa specifičnim kompetencijama, unutar unaprijed određenog broja, odnosno omjera naspram medicinskih sestara u neposrednoj skrbi za pacijente.

Treba istaknuti da je u Republici Hrvatskoj u 18 godina od pokretanja prvog programa diplomskog studija pokrenuto 18 različitih programa (uz najavu za pokretanjem devetnaestog tijekom 2024. godine). Oni se izvode kao stručni ili kao sveučilišni studiji. Iako njihova usporedba zbog različitih sadržaja nije moguća, za jasniju daljnju analizu bilo je potrebno utvrditi sljedeće: 1) koji je broj studenata na diplomskim studijima i 2) koja je realna potreba poslodavca za visokoobrazovanim medicinskim sestrama. Kao što ćemo vidjeti u nastavku, nijedan od tih podataka nije lako dostupan.

Prije svega, trenutno nije moguće točno odrediti koliko je studenata upisano na diplomske studije sestrinstva jer broj mjesta na natječajima za upis, ali i broj upisanih studenata često nisu isti. Stoga su ovdje prikazani podaci proizašli iz: a) službeno objavljenih natječaja visokih učilišta, b) direktne korespondencije između autora rada i voditelja studija te c) prikazanog broja studenata na službenim stranicama fakulteta. U jednom je slučaju broj prilagođen medijskom napisu o pokretanju novog studija i broju upisanih studenata koji nije bio u skladu s natječajem ni službeno objavljenim podatkom. Između 2005. i 2011. godine na razini države upisivano je oko 150 studenata na diplomske studije sestrinstva. Pokretanjem novih diplomskih studija taj se broj postepeno povećavao. Prema prikupljenim podacima,

One of the frequent additional arguments for starting graduate nursing studies and then increasing the number of students in them is the assumption that this will ensure a stronger professional status and autonomy of nurses, as well as a higher quality of nursing care. That has not proven to be true in many other countries. In 1999, Ann Bradshaw, in her presentation and analysis of British nursing, pointed out that nurses cannot be more clearly professionalized or autonomously strengthened through university education alone, but it is necessary to enhance the quality and uniqueness of direct nursing care for patients [5]. That means that nursing is all the more autonomous as the competencies of those closest to the patients are strengthened. Therefore, raising the quality of primary nursing education is crucial. The opposite is most often the case, so a high level of education is planned for those nursing jobs that are less related to patient care (management, organization, education, scientific research work), and we notice that the most educated nurses are actually the most distant from patients [6]. The results of research on American nursing education published by Benner et al. in 2010 show a similar conclusion [7]. The above presupposes the necessity for highly educated nurses in certain workplaces and with specific competencies within a pre-determined number, that is, the ratio of nurses in direct patient care.

It should be noted that 18 different programs have been launched in the Republic of Croatia in the 18 years since the launch of the first graduate study program (with the announcement of the launch of the nineteenth in 2024). They are carried out as professional or university studies. Although their comparison is not possible due to their different contents, for a clearer further analysis, it was necessary to determine the following: 1) what is the number of students in graduate studies and 2) what is the employer's real need for highly educated nurses. As we will see below, none of this data is easily accessible.

First of all, at the moment, it cannot be precisely determined how many students are enrolled in graduate nursing studies because the number of places in admission competitions and the number of enrolled students are often not the same. Therefore, the data presented in this paper is derived from a) officially published tenders of higher education institutions, b) direct correspondence between the author of the paper and the head of studies, and c) the number of students shown on the official website of the faculty. In one case, the number was adapted to a media article about the launch of a new study and the number of enrolled students, which was not in accordance with the competition or the officially published data. Between 2005 and 2011, approximately 150 students were enrolled in graduate nursing studies at the level of the Republic of Croa-

u ak. god. 2023./2024. na diplomske studije sestrinstva upisana su 704 studenta. Na jednom visokom učilištu upisano ih je više od 150, na četiri studijska programa upisano je između 50 i 100 studenata, deset studijskih programa upisalo je manje od 50 studenata, a tri studijska programa nisu upisala studente. Shodno navedenom, vidljiva je pojava da broj upisanih studenata često ne odgovara početnim natječajima za upis. Tako imamo primjer visokog učilišta koje je svoj početni natječaj za 30 studenata promijenilo prema broju prijavljenih kandidata na natječaj, te su konačno upisali 157 studenata [8]. U ak. god. 2023./2024. ima i nekoliko studija koji su primili nešto manji broj studenata od početnog natječaja.

Osim prikazanog broja, vrijedi analizirati podatak o dosadašnjem udjelu visokoobrazovanih medicinskih sestara u sveukupnom broju. Trenutno je u Hrvatskoj (podatak je iz siječnja 2024. godine) 41 276 medicinskih sestara upisano u registar Hrvatske komore medicinskih sestara<sup>2</sup>. Od prikazanog broja, prema podacima Hrvatskog zavoda za javno zdravstvo, njih 32 440 radi unutar zdravstvenog sustava. Od sveukupnog broja medicinskih sestara, 5 025 njih ima visoko obrazovanje (diplomirane medicinske sestre / magistri sestrinstva), odnosno 12 %. Ovaj podatak treba staviti u širi kontekst. Iako nije moguće jasno odrediti koliki je udio visokoobrazovanih medicinskih sestara na razini u Europske unije (EU), prema podacima Eurostata unutar članica EU-a djeluje 3,9 milijuna medicinskih sestara, a prema sporadičnim podacima pojedinih zemalja članica udio diplomiranih sestara (drugi stupanj visokog obrazovanja usklađen s Bolonjskom deklaracijom) iznosi 5 – 20 % [9]. Ipak, udio je precizan za američko sestrinstvo gdje prema podacima *Američkog udruženja medicinskih sestara* udio magistara sestrinstva iznosi 17,4 % 2022. godine [10]. Potrebno je ipak istaknuti razliku između obrazovnih sustava s obzirom na to da je titula magistra sestrinstva u Sjedinjenim Američkim Državama ujedno specijalistička (s jasnim kompetencijama), ali i znanstvena, dok je na području Europske unije ona stručna. Gledajući ukupan broj hrvatskih medicinskih sestara, taj bi se američki standard dosegao s nešto više od 7 000 medicinskih sestara. S obzirom na tendenciju otvaranja novih diplomskih studija i broj upisnih mjesta, vrlo je vjerojatno da ćemo uskoro taj udio i premašiti. Ukoliko se prouče podaci Eurostata za 2022. godinu, utoliko je to nesporno tako jer smo već sad peta država u Europskoj uniji prema broju diplomanata sestrinstva na 100 000 stanovnika (ispred nas su Danska, Švedska, Njemačka i Francuska) [11].

Kad bismo postavili pitanje koliko nam studenata diplomskih studija treba, tad bismo kvantitativnim određivanjem potreba mogli izračunati da na očekivani broj medicinskih sestara u Hrvatskoj i procjenu da nam treba 20 % visokoobrazovanih medicinskih sestara (uz pretpostavku da radni vijek traje 40 godina), godišnje treba 150 – 200 diplomanata diplomskih studija. No, ovdje se postavlja dodatno pitanje i problem. Naime, drugo problemsko pitanje odnosi se

tia. With the launch of new graduate studies, that number gradually increased. According to the collected data, in the academic year 2023/2024, 704 students were enrolled in graduate nursing studies. At one university, more than 150 of them were enrolled, four study programs had between 50 and 100 students, ten study programs had fewer than 50 students, and three study programs had no students. According to the above, it is evident that the number of enrolled students often does not correspond to the initial applications for admission. Thus, we have an example of a higher education institution that changed its initial competition for 30 students according to the number of candidates registered for the competition and finally enrolled 157 students [8]. In the academic year 2023/2024, several studies enrolled a slightly smaller number of students than the initial competition.

In addition to the number shown, it is worth analyzing the data on the share of highly educated nurses in the total number. Currently, in Croatia (the data is from January 2024), 41,276 nurses are registered in the Croatian Chamber of Nurses<sup>2</sup>. Of the number shown, according to the Croatian Institute of Public Health's data, 32,440 nurses work within the health system. Out of the total number of nurses, 5,025 of them have higher education (nursing graduates/nursing masters), or 12%. This information should be placed in a wider context. Although it is not possible to determine the share of highly educated nurses at the level of the European Union (EU), according to Eurostat data, 3.9 million nurses are working within the EU member states, and, according to sporadic data from individual member states, the share of nurses with a degree (second degree of education aligned with the Bologna Declaration) amounts to 5-20% [9]. Nevertheless, the share is precise for American nursing, where, according to the data of the American Nurses Association, the share of master's degrees in nursing is 17.4% in 2022 [10]. However, it is necessary to point out the difference between the educational systems, considering that the master's degree in nursing in the United States is both specialist (with clear competencies) and scientific, while in the European Union, it is professional. Considering the total number of Croatian nurses, the American standard would be reached with slightly more than 7,000 nurses. Considering the tendency to open new graduate studies and the number of enrollment places, it is very likely that we will soon exceed that share. If we study Eurostat data for 2022, this is indisputably true because we are already the fifth country in the European Union in the number of nursing graduates per 100,000 inhabitants (Denmark, Sweden, Germany, and France are ahead of us) [11].

If we were to ask the question of how many graduate students we need, then by quantitatively determining the needs, we could calculate that based on the expected number of nurses in Croatia and the estimate that we need 20% of highly educated nurses (assuming that the working life lasts 40 years), we need 150-200 graduates of graduate

<sup>2</sup> Podatak je dobiven u službenoj korespondenciji s predstavnicima Hrvatske komore medicinskih sestara. / The data is obtained in the official correspondence with representatives of the Croatian Chamber of Nurses.

na realne potrebe poslodavaca za visokoobrazovanim medicinskim sestrama. Godine 2022. Vlada Republike Hrvatske donijela je uredbu kojom se priznaje status visokog obrazovanja medicinskim sestrama sa završenim diplomskim obrazovanjem, no ne svima, već sukladno pojedinim radnim mjestima [12]. Potrebno je istaknuti da se ova uredba odnosi na medicinske sestre unutar zdravstvenog sustava, što isključuje medicinske sestre koje su dio obrazovnog sustava jer se njima taj status priznaje po drugoj osnovi. Ovdje se uočavaju dva problema. Prvi se odnosi na to da, dok je uredbom priznata visoka stručna sprema, očito je da nisu priznate i kompetencije koje bi je pratile. Naime, navedeni dokument imenuje radna mjesta na kojima će se stupanj obrazovanja priznati, ali ne zahtijeva da na određenom radnom mjestu medicinska sestra ima određen stupanj obrazovanja. Odnosno, ako ga ima – prizna joj se, no ako ga nema – ne zahtijeva se. Time se ne vrednuju kompetencije, već obrazovni stupanj, što dugoročno može biti problematično. Drugi je problem, kojim se moguće objašnjava upravo navedeno, u činjenici da obrazovni programi diplomskih studija nisu ujednačeni i nemaju kompetencije koje bi proizašle iz nužnih potreba poslodavca / zdravstvenog sustava. To je pak posljedica toga što se diplomski studiji otvaraju prema programima koje kreiraju visoka učilišta, a ne prema zahtjevima potencijalnih poslodavaca. Zanimljivo je napomenuti da u statističkim podacima Eurostata nije prikazan podatak za Hrvatsku o udjelu visokoobrazovanih medicinskih sestara unutar zdravstvenog sustava. Na razini EU-a njih 62 % radi upravo u bolničkom sustavu [11]. Ovo bi mogla biti smjernica za vrednovanje studijskih programa koji bi i sadržajno morali biti prilagođeni realnim potrebama.

Budući da u Republici Hrvatskoj trenutno ima više od 5 000 medicinskih sestara s diplomskim obrazovanjem, odnosno više od 12 % od ukupnog broja, postavlja se pitanje stvarnih potreba i ishoda učenja koji bi bili usklađeni s realnim potrebama potencijalnih poslodavaca. Da bi se moglo jasnije predvidjeti što će se događati u budućnosti, a na tragu sličnih preporuka u svijetu, trebalo bi učiniti sljedeće: (1) odrediti realne potrebe poslodavaca za visokoobrazovanim medicinskim sestrama (kvantitativni zahtjev), (2) odrediti očekivane ishode učenja diplomanata (kvalitativni zahtjev), (3) utvrditi koliki je trenutni *drop out* (udio studenata koji ne uspiju završiti diplomski studij), (4) usporediti i utvrditi upisne kriterije sukladno prethodno navedenom, te tek nakon toga (5) odrediti broj mjesta na diplomskim studijima koji bi bili usklađeni sa stvarnim potrebama. Ukoliko se ovo ne učini, utoliko predviđamo da će povećanje broja studijskih programa dovesti do umanjenja kvalitete zbog sve veće dostupnosti istih. Posljedično, poslodavci neće moći pratiti financijsko vrednovanje stečenog obrazovnog statusa sa svim negativnim posljedicama istog.

Ovaj prilog završavamo komentarom na činjenicu da nije nužnost da kvantiteta s vremenom prelazi u kvalitetu. Štoviše, za kvalitetu u skrbi za čovjeka nema alternative do iznimno dobrog, a to nerijetko znači i vrlo zahtjevnog obrazovanja. Takvo se obrazovanje može ostvariti jedino unutar sustava koji njeguju ideale skrbi za čovjeka u potrebi, a to isključuje poučavanje u virtualnim okruženjima. Pojava da svi pristupnici natječaju bivaju upisani na diplomske studije, a studiji imaju težnju akreditacije online programa,

studies per year. However, an additional question and problem arises here. Namely, the second problematic question refers to the real needs of employers for highly educated nurses. In 2022, the Government of the Republic of Croatia adopted a Decree that recognizes the status of higher education for nurses with completed graduate education, but not all of them, in accordance with individual workplaces [12]. We should point out that this regulation refers to nurses within the health system, which excludes nurses who are part of the educational system, as they are recognized for this status on a different basis. There are two problems here. The first refers to the fact that, while the Decree recognizes higher education, obviously, the competencies that would accompany it are not recognized. The aforementioned document names workplaces where the level of education will be recognized, but it does not require that a nurse has a certain level of education in a certain position. That is, if there is one - it is acknowledged, but if there is none - it is not required. That does not evaluate competencies but educational level, which can be problematic in the long term. Another problem, which possibly explains what has just been stated, is that educational programs of graduate studies are not uniform and do not have the competencies that would arise from the needs of the employer/health system. That is a consequence of the fact that graduate studies are opened according to the programs created by higher education institutions and not according to the requirements of potential employers. It is interesting to note that the statistical data of Eurostat does not show data for Croatia on the share of highly educated nurses within the health system. At the EU level, 62% of them work in the hospital system [11]. That could be a guideline for the evaluation of study programs, which would also have to be content-adjusted to the real needs.

Since there are currently more than 5,000 nurses with graduate education in the Republic of Croatia, i.e., more than 12% of the total number, the question arises of real needs and learning outcomes that would be aligned with the real needs of potential employers. To be able to predict more clearly what will happen in the future, following similar recommendations in the world, we should: (1) determine the real needs of employers for highly educated nurses (quantitative requirement), (2) determine the expected learning outcomes of graduates (qualitative requirement), (3) determine the current dropout rate (rate of students who fail to complete graduate studies), (4) compare and determine the enrollment criteria in accordance with the above, and only after that, (5) determine the number of places in graduate studies that would be aligned with actual needs. If this is not done, we predict that the increase in number of study programs will lead to a decrease in quality due to their increasing availability. Consequently, employers will not be able to follow the financial evaluation of the acquired educational status with all its negative consequences.

We end this contribution with a comment on the fact that it is not necessary that quantity turns into quality over time. Moreover, there is no alternative to exceptionally good quality human care, and that often implies a very demanding education. Such an education can only be achieved within a system that nurtures the ideals of caring for people in

ne govori u prilog prethodnom. Kad se pak uspoređi broj upisanih s brojem diplomanata, također se uviđa da gotovo ne postoje studenti koji ne završavaju studij. No, ono što se uočava, njihovo je nezadovoljstvo kad im se stečena diploma i financijski ne kompenzira. To nezadovoljstvo i nije neopravdano s obzirom na to da se svi programi sestrijskih studija izvode na javnim sveučilištima, dakle, onima čije programe neposredno usmjerava i nadzire država.

Sestrinstvo poslodavcu mora jasno ponuditi visoku razinu obrazovanja kao kriterij koji on zbog nedvojbene kvalitete i potrebe neće moći odbiti. Ono mora biti usklađeno s realnim potrebama, ali i atraktivnošću kompetencija koje će pomoći u rješavanju nekih neposrednih problema sustava. Postoje modeli evaluacije sadašnjeg stanja, kao i oni kojima je moguće usmjeravati buduće obrazovne procese.

### **Nema sukoba interesa.**

need, and that excludes teaching in virtual environments. The fact that all applicants are enrolled in graduate studies and that the studies aspire to accredit online programs does not speak in favor of the previous one. When comparing the number of enrolled students with the number of graduates, we notice that almost all enrolled students complete their studies. However, we notice their dissatisfaction when their diploma is not financially compensated. This dissatisfaction is not unjustified considering that all programs of nursing studies are implemented at public universities, that is, those whose programs are directed and supervised by the state.

Nursing must clearly offer the employer a high level of education as a criterion not to be able to refuse due to the undoubted quality and need. It must be aligned with real needs but also with the attractiveness of competencies that will help solve some immediate problems of the system. There are models for evaluating the current state, as well as those that can guide future educational processes.

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