

## ZDRAVSTVENE PROFESIJE I ZNANOST

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Službeni i meni ne previše drag izraz za sestrinstvo jest zdravstvene profesije, pa ću taj izraz ovdje i rabiti. Znam da se to mora zato što je on širi od „sestrinstva“ i pokriva, čini mi se, deset ili jedanaest struka, ali „sestrinstvo“ mi je posebno drago zato što je ono ipak najljepši i najstariji simbol medicine i zdravstva i brige za bolesna čovjeka, a navlastito stoga što mu je nanesena velika, neoprostiva nepravda, širom svijeta a napose u Hrvatskoj, gdje stanje dobro poznajem.

Nazivlje na stranu, zadatak mi je reći zašto zdravstvene profesije treba obrazovati o znanosti i učiti znanstvenoistraživačkom radu. Meni je to laka i draga zadaća.

### Napredak i rast medicine i zdravstva

Zdravstvo i medicina su jako napredovali i školovanje ljudi za zdravstvene profesije traži – naprosto – više učenja, gradiva i time i trajanja izobrazbe. Liječnici su prvi dodatno opterećeni i novim spoznajama i znanim trijasom obveza – struka, znanost i nastava. Znanje, a time i dijagnostika i postupci liječenja, prošireni su na genomiku, proteomiku i štošta drugo i medicina čvrstim korakom kroči u tzv. personaliziranu medicinu, gdje će se svakog bolesnika liječiti specifično, prema njegovim urođenim zdravstvenim snagama i slabostima.

Možda za neke manje primjetno, ali skoro jednako tako i toliko napreduju i one grane medicine i zdravstva koje ni tradicionalno niti suvremeno ne pripadaju liječnicima. Te grane protežu se od poznavanja medicinske tehnologije i bavljenja njome, poput radiološkoga inženjerstva, preko organizacije kliničkih pokusa, do različitih oblika upravljanja, koje uključuje i stručne i specifične procjene učinkovitosti, troškova i kvalitete.

Ukratko, svi sudionici brige za ljudsko zdravlje dobivaju sve više tereta i posao im postaje sve složeniji; pojavljuje se nužda za timskim radom i podjelom zadataka i specijalnosti na što više ljudi. Konkretno rečeno, organizacija kliničkih pokusa usmjerava se sestrama, laboratorijska tehnologija odgovarajućim zdravstvenim profesijama, fizikalna

medicina fizioterapeutima, itd., a to znači ne samo više posla, nego i – složenijeg posla.

### Sveučilišna razina školovanja

Svijet se razvio (mi njemu pripadamo) do razine da se više ništa ne može raditi bez znanja; iskustvo i trud nisu dostatni. Povećala se i opća svijest i informiranost, kao i standard življenja, i Europa je procijenila da srednje škole više nisu dovoljne za obrazovanje potrebno za primjerenu produktivnost u suvremenom svijetu. Stvarno i konačno obrazovanje (o cjeloživotnom ovdje ne ćemo govoriti, iako ga trebamo biti jako svjesni) za većinu mladeži prebacuje se, dakle, na sveučilišnu razinu. Definira se bolonjski proces, kao 3 + 2 + 3, prvostupnik, magistrar i doktor znanosti. Zdravstvene profesije postaju sveučilišni studij.

A svaki sveučilišni studij počiva na znanstvenom svjetonazoru, tehnologiji, komunikaciji i kriterijima.

### Sveučilišno obrazovanje uključuje znanstveni način mišljenja

Najkraće i najjasnije rečeno, znanstveni način mišljenja ima tri sastavnice: a) uporaba podataka za orijentaciju, argument i susljedno djelovanje, b) kritički pristup podacima što se osniva na svijesti da je ljudsko znanje samo ljudsko, dakle nesavršeno i da mu uvijek moramo pristupiti kritički, ne slijepo i mehanički,

nego uvijek promišljajući i provjeravajući njegove moguće mane i nedostatnosti, c) pristup podacima analizama i mišljenim na razini pouzdanih znanstvenih izvora, što znači – znanstvenim časopisima.

Iz činjenice da se učenje znanstvenih profesija mora zasnivati na znanstvenom pristupu proistječe nužnost da se (i) na tom studiju uče, poštuju i prakticiraju osnove znanstvene metodologije. Možemo slobodno reći da učenje znanosti, barem na prvostupničkoj razini, ne znači ujedno i da svi studenti trebaju postati znanstvenici, dakle istraživači. No to što netko nema ambiciju baviti se znanstvenim istraživanjima, ne znači da mu znanost ne treba. Bez osnovnih elemenata znanstvenoga pristupa poslu, taj se posao ne može dolično raditi.

### Što treba i najmanje ambicioznima?

Rekli smo da treba upoznati, usvojiti i poštovati znanstveni način mišljenja. Nadalje, treba steći sposobnost i naviku praćenja literature koja se odnosi na posao koji čovjek radi, i to ne tzv. „stručne“ literature, jer znanje napreduje toliko brzo da zastarijevaju sve knjige i svi tekstovi stariji od oko pet godina. Treba pratiti izvornu literaturu, najbolje sustavne preglede (vrlo važna tema, ali ovdje je ne možemo razglabati), dakle dovoljno znati engleski jezik i uvježbati osnove traženja literature na svemrežju.

Tako sveučilišno obrazovanje u bolonjskom sustavu omogućuje zdravstvenim profesijama da postanu ravnopravni i bitno korisniji partneri liječnicima u liječenju bolesnika i brizi za zdravlje stanovništva. Upotrijebit ću moj omiljeni izraz i nešto grublju formulaciju: sveučilišnim obrazovanjem sestre postaju suradnice liječnika, a ne njihovi pomoćnici koji slijepo rade što im se odredi.

Ona(j) tko to odbija, radi na štetu svoju, štetu bolesnika i zdravstvenoga sustava, a onaj tko to ne može, treba ostati kod kuće.

### Problemi

Ono što studente zdravstvenih profesija želimo naučiti o znanosti nije nesavladivo, čak nije ni teško. Na žalost, stanje stvari nije dobro, jer studenti misle da im to ne treba, a, što je još žalosnije, to misli i dobar dio nastavnika, pa i javnosti. Tako se na kraju muče

i studenti; nastavnici i studenti ostanu bez nužnoga znanja i vještina, a nastavnici u tajnosti otkrivaju poniženje da su dobili plaću za posao koji nisu obavili.

### Ukupno se problemi mogu podijeliti u tri razine.

**Razina studenata** osniva se na nedostatku samopoštovanja u studenata. Oni prvi, možda i najviše, ne vjeruju da bi trebali učiti sve to što im se propisuje i onda slabo rade. O tom slabom radu mogle bi se napisati debele knjige, koje bi bile istodobno i smiješne i tužne, meni više tužne. Nedostatak vjere u vlastitu vrijednost vodi u slab rad, niži društveni status i manji ugled i naposljetku u neki stupanj siromaštva (licemjerno bi se reklo „slabijega ekonomskoga standarda“).

Zdravstvene profesije moraju same sebi izgraditi i održavati svoje samopoštovanje, jer im u tome, koliko ja vidim, nitko iskreno ne pomaže, dakle im ne će pomoći ni ubuduće.

**Razina fakulteta** zdravstvenih profesija daleko je ispod razine sveučilišnoga studiranja i to znaju i studenti i nastavnici. Budući da se radi o vrlo važnoj stvari za nebrojene mlade živote i za vrsnoću skrbi za bolesnika (što ćemo prije ili poslije i sami i svi biti), smatram da se obje strane trebaju stidjeti. Drago mi je da sam dobio priliku to ovdje javno reći. Bude li me tko „potezao za jezik“, tj. „u oči“ lagao da nije tako, iznijet ću konkretnu istinu, koja, na žalost, nije nimalo ugodna.

A ovdje je spominjem jer vruće želim da se stvari bitno poprave.

**Razina države** nije nimalo bolja od prethodne dvije. Stručnjaci za zdravstvo, stručnjaci za izobrazbu, političari i upravljači, čak i roditelji studenata – ne vjeruju dovoljno jako da sveučilišni studij sestrištva ima smisla, da je potreban i da je lijep, častan i perspektivan. Dopušta se upravo na tim fakultetima, bilo nezakonito, bilo nečasno, naplaćivanje školarina, a ne potiče se, ne organizira niti promiče znanstvena razina studiranja i rada. Održavanje i kvaliteta nastave gore su nego i inače jedna organizacija, odvijanje i kvaliteta nastave na sveučilištima i stvara se začarani krug neznanja, nepoštivanja, varanja i korupcije svake vrsti. Takav sustav ne može proizvesti (nego lažne) sveučilišne nastavnike i krug nesreće zatvara se i u kadrovskom pogledu.

Država, koja financira visoko školstvo, ne vodi brigu o kvaliteti i dosljednosti rada niti na „elitnim“ fakultetima, a o fakultetima zdravstvenih studija nikad i ne misli, a nekmoli da bi pomislila da ih uredi, ili, „ma dajte, nemojte se šaliti“ da na njima potiče i razvija znanost. Pod pritiskom lokalnih moćnika dane su bezbrojne dopusnice za otvaranje lažnih i pravih škola za zdravstvene profesije, ali nakon toga je država na njih zaboravila. Onda se na lokalnoj razini problem riješi tako da se sestrama – naplaćuje školarina. Predlažem da netko napravi malu analizu u kojim se fakultetima najčešće plaćaju školarine. I plaćaju li te školarine upravo oni studenti koji ionako dolaze iz siromašnijih društvenih slojeva i koje i kada diplomiraju imaju slabije plaćena radna mjesta.

## Zaključak

Ja vjerujem u Leibnizovu izreku „sve stvari su najbolje u najbolje uređenom svijetu“, i to ne zato što bih Leibniza smatrao većim genijem od drugih genija, nego zato što mi je njegovu misao potvrdilo vlastito iskustvo. Običnim riječima rečeno – svi smo dobili ono što smo zaslužili. I svi ćemo – dobiti – ono što zaslužimo.

Dakle, zapravo, nosim dobre vijesti: imamo sveučilišni studij, međunarodnu neoborivu koncepciju i upisali smo se; stvarno ne vidim razloga da budemo ili ostanemo nesretni u odnosu na našu zdravstvenu profesiju. A napose da ne budemo nesretni što nas g. Marušić i njegovi seraskeri tjeraju da malo otvorimo i mozak i srce – znanstvenoj metodologiji.

## HEALTH CARE PROFESSIONS AND SCIENCE

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Official and for me not too fond term for nursing is health care profession, and the term will be used here. I know that this has to be because it is wider than the “nursing” and covers, in my opinion, ten or eleven professions, but I am particularly pleased with “nursing” because it’s still the most beautiful and the oldest symbol of medicine and health care and care for the ill man, and especially because major, unforgivable injustice was caused to it, around the world and especially in Croatia, where I am familiar with the current situation.

Terminology aside, my task is to say why the medical profession should be educated about science and about scientific research. I find it easy and a pleasant task.

### Progress and growth of medicine and health

Health care and medicine have progressed and education of people for medical professions - simply - requires more learning, materials and longer duration of the training. Doctors are the first who are additionally burdened with new cognitions and the known triad of obligations - professions, science and education. Knowledge, and therefore diagnosis and treatment procedures, are extended to genomics, proteomics and medicine firmly steps into the so-called, personalized medicine, where they will treat any patient in a specific way, according to its innate health strengths and weaknesses.

Maybe, for some people this is less noticeable, but those branches of medicine and health care, that are not traditionally or contemporary connected with physicians thrive almost in the same way. These branches stretch from the knowledge of medical technology and dealing with it, such as radiological engineering, through the organization of clinical trials, to different forms of management, which include professional and specific assessment of the effectiveness, cost and quality.

Briefly, all the participants of caring for human health are gaining more burdens and their job becomes more complex; the necessity for teamwork and division of tasks and specialization to more people

appears. Specifically, the organization of clinical trials is directed to nurses, laboratory technology to appropriate health professions, physical medicine to physical therapists, etc., and that means not only more work, but also - more complex work.

### University level of education

The world has grown (we belong to it) to the extent that nothing can be done without knowledge; experience and hard work are not enough. General awareness and access to information has increased, as well as standard of living, and Europe has estimated that high school education is no longer sufficient for the education necessary for adequate productivity in the modern world. Real and final education (we will not speak here about lifelong education, although we have to be very aware of it) for the majority of youth is transferred, therefore, at the university level. The Bologna process is defined, as a 3 + 2 + 3, bachelor, master and doctor of science. The health professions are becoming university studies. And every university study is based on the scientific worldview, technology, communication and criteria.

### University education includes scientific way of thinking

The shortest and most clearly stated, scientific way of thinking has three components: a) the use of data

for orientation, argument and sequential activity, b) critical access to data that is based on the awareness that human knowledge is only human, so imperfect and that we always have to access to it critically, not blindly and mechanically, but always reflecting on and checking of its possible shortcomings and inadequacies, c) access to the data, analysis and opinion on the level of reliable scientific sources, which means - scientific journals.

The fact that learning for scientific professions must be based on scientific approach derives the need that (and) in that study the basics of scientific methodology have to be learned, observed and practiced. We can say that studying science, at least at bachelor level does not necessarily imply that all students need to become scientists, or researchers. But the fact that someone does not have the ambition to do scientific research, does not mean that he does not need science. Without the basic elements of a scientific approach to job, this job can not be done properly.

### What is necessary for the least ambitious?

We said we should meet, adopt and respect scientific way of thinking. Furthermore, man should acquire the ability and habit of monitoring the literature relating to the work that man does, and not only so called "professional" literature, because knowledge progresses so fast that all the books and texts older than five years become obsolete. The original literature should be followed, the best systematic reviews (very important issue, but here we can not prattle), therefore to have sufficient knowledge of the English language and to practice the basics of searching the literature on the Internet.

That type of university education in the Bologna system allows health professions to become equal partners and significantly more useful to physicians in treating patients and caring for the health of the population. I'll use my favorite phrase, and some coarser formulation: university degree nurses become associates to doctors and their assistants who do not blindly do what is determined.

The one who refuses this, works on its own damage, the damage of patients and the health care system, and the one who can not do this, should stay at home.

### Problems

What we want for the students of the health professions to learn about science is not invincible, not even hard. Unfortunately, the situation is not good, because students think they do not need it, and, what is even more regrettable that it is also thought by the great part of the teachers, and the public. So at the end, this is the torture for students; teachers and students run out of the necessary knowledge and skills, and teachers secretly reveal the humiliation that they get paid for the work they did not perform.

#### Total problems can be divided into three levels

**The level of students** is based on the lack of self-esteem in students. They first, and perhaps most, do not believe that they should learn all that they are prescribed and then do not work properly. About this poor work thick books could be written, which would be simultaneously funny and sad, more sad to me. The lack of faith in its own value leads to poor performance, lower social status and less prestige and eventually in some degree of poverty (hypocritically to say "limited economic standards").

Health care professions must build and maintain their self-esteem by themselves, because, as far as I can see, no one honestly does not help, and will not help them in the future.

**The level of the faculty** of health professions is far below the level of university study and this is known to both, the students and teachers. Since this is a very important matter for the countless young lives and for the excellence of care for patient (that we will, sooner or later, all become), I believe that both sides should be ashamed. I'm glad I got a chance to say this here publicly. And if someone "pulls my language", or lies in "the eyes" that this is not so, I will set out a concrete truth, which, unfortunately, is not at all pleasant.

And here I mention it because I warmly want things to improve markedly.

**The state level** is not better than the previous two. Experts in health, education experts, politicians and administrators, parents and even students - do not believe strongly enough that university study of nursing makes sense, that it is necessary and that it is beautiful, honorable and promising. At these institutions, illegally, or dishonorably, the tuition charging is allowed, and scientific level of study and work is not encouraged, nor organized or promoted. Maintenance and quality of teaching are worse than already poor organization, conduct and quality of teaching at universities and a vicious circle of ignorance, disrespect, cheating and corruption of every kind is created. Such a system can not produce (but fake) university teachers and accident circuit closes with cadres.

The state, which funds higher education, does not care about the quality and consistency of work at "elite" universities, and does not even think about faculties of health studies, nor it thinks to organize them, or, "come on, do not joke" to promote and develop science at these institutions. Under the pressure of local potentates, countless permissions to open fraudulent and right schools for health

professions are given, but after that, the state has forgotten them. Then, locally, the problem is solved so that the nurses pay the tuition. I suggest that someone makes a small analysis, on which faculties tuition fees are usually payed. And do these tuition fees pay those students who already come from the poorer strata of society, and who, after the graduation get low payed jobs.

## Conclusion

I believe in Leibniz's saying "all things are the best in the best-ordered world", and not because I think Leibniz is bigger genius than other geniuses, but because his saying is confirmed by my own experience. Mere words said - we all got what we deserved. And we'll - get - what we deserve.

So, actually, I have good news: we have a university degree, an irrefutable international concept and we enrolled; I really do not see any reason to be or remain unhappy with respect to our medical profession. And especially not to be unhappy because Mr. Marusic and his partners force us to open our brain and heart to scientific methodology.