doi: 10.5937/opmed0-62880

Opšta medicina

UDC:

Motivacija za kontinuiranu medicinsku edukaciju zdravstvenih radnika i održivost zdravstvenog sistema

Tijana Smiljković[1], Jelena Ivković[2]

[1]Opšta bolnica Kruševac, Služba za anesteziju, reanimaciju i intenzivnu terapiju, Kruševac, Srbija
[2]Dom zdravlja Kruševac, Kruševac, Srbija

Sažetak

Uvod. Kontinuirana medicinska edukacija (KME) predstavlja ključni faktor profesionalnog razvoja zdravstvenih radnika. Omogućava unapređenje znanja i veština, prateći najnovija istraživanja i tehnološki napredak. Savremeni pristup KME usmeren je na programe koji odgovaraju potrebama zdravstvenih ustanova i populacije.

Cilj rada. Ispitivanje nivoa zadovoljstva i motivacije zdravstvenih radnika za učešće u programima KME, identifikovanje ključnih nedostataka ovih programa i analiziranje njihovog uticaja na profesionalni razvoj zdravstvenih radnika i održivost zdravstvenog sistema.

Metod. U radu su najpre definisani osnovni pojmovi u vezi sa programima KME u Srbiji, uključujući organizaciju, akreditaciju i proces validacije programa. Sprovedena je empirijska studija preseka sa ciljem ispitivanja zadovoljstva i motivacije zdravstvenih radnika zaposlenih u Domu zdravlja Kruševac i Opštoj bolnici Kruševac za učešće u KME programima.

Rezultati. U istraživanju je uočen veći odziv ispitanika ženskog pola (85,7%), koji su pokazali i veću spremnost za učešće u anketi. U starosnoj strukturi dominirala je grupa 40–49 godina (41,6%), dok je najzastupljeniji radni staž bio 10–20 godina (42,9%), što ukazuje na uzorak sa značajnim profesionalnim iskustvom. Najveći broj ispitanika činile su medicinske sestre/tehničari (62,3%), dok su lekari bili zastupljeni sa 23,4%.

Zaključak. Kontinuirana medicinska edukacija predstavlja ključni faktor profesionalnog razvoja zdravstvenih radnika i unapređenja kvaliteta zdravstvene zaštite. Rezultati ukazuju na potrebu daljeg unapređenja i jačanja motivacije za učešće u KME programima. Kontinuirano usavršavanje neophodno je za održivost zdravstvenog sistema i kvalitetniju brigu o pacijentima.

Ključne reči: kontinuirana medicinska edukacija, komunikacija, motivacija, zdravlje, zajednica, zdravstveni radnik, kvalitet zdravstvene zaštite

Motivation for Continuous Medical Education of Health Workers and Sustainability of the Health System

Tijana Smiljkovic[1], Jelena Ivkovic[2]

[1]General Hospital Krusevac, Department of Anesthesia, Resuscitation and Intensive Care, Krusevac, Serbia
[2]Primary Healthcare Center Krusevac, Krusevac, Serbia

Abstract

Introduction. Continuous Medical Education (CME) represents a cornerstone of professional development for healthcare workers. It enables the ongoing enhancement of knowledge and skills while ensuring alignment with the latest scientific research and technological advancements. Modern approaches to CME emphasize the design of programs that are compatible with the evolving needs of health professionals and responsive to the health demands of the population.

Objective. We aimed to examine the level of satisfaction and motivation among health workers in participating in CME programs, to identify their principal shortcomings, and to analyze their impact on professional development as well as on the sustainability of the health system.

Method. First, we defined the basic concepts related to CME in Serbia, including its organization, accreditation, and the process of program validation. We then conducted an empirical cross-sectional study to assess the satisfaction and motivation of health workers in Primary Healthcare Center Krusevac and General Hospital Krusevac regarding their participation in CME programs.

Results. Our research revealed a predominance of female respondents (85.7%), who also demonstrated greater willingness to participate in the survey. In terms of age distribution, the 40–49 age group was most represented (41.6%). The most common length of work experience was between 10 and 20 years (42.9%), indicating that the sample consisted of participants with substantial professional experience. The majority of respondents were nurses/technicians (62.3%), while physicians accounted for 23.4%.

Conclusion. Continuous Medical Education (CME) is a key factor in the professional development of health workers and in enhancing the overall quality of healthcare. Our findings highlight the need for further improvement and for strengthening motivation to participate in CME programs. Ongoing advancement in this area is essential to ensure the sustainability of the health system and the delivery of high-quality patient care.

Keywords: Continuous Medical Education, communication, motivation, community, healthcare workers, quality of healthcare

Correspondence to:
Dr Tijana Smiljković
Kosovska 218, Kruševac
tsmiljkovic1985@gmail.com
+381652777985

Creative Commons Licence CCL (CC BY-SA)

Uvod

Kontinuirana medicinska edukacija (KME) predstavlja jedan od ključnih faktora profesionalnog razvoja zdravstvenih radnika i važan mehanizam za unapređenje kvaliteta zdravstvene zaštite[1]. Ona omogućava stalno obnavljanje i proširivanje znanja i veština u skladu sa savremenim naučnim dostignućima, tehnološkim napretkom i promenama u organizaciji zdravstvenih sistema[2]. Savremeni pristup kontinuiranoj edukaciji zasniva se na ciljanim i problemski orijentisanim programima koji odgovaraju potrebama zdravstvenih ustanova i populacije, uz naglasak na neposrednu primenu stečenog znanja u kliničkoj praksi[3].

Koncept kontinuirane medicinske edukacije razvijen je tokom osamdesetih godina XX veka u Latinskoj Americi pod pokroviteljstvom Panameričke zdravstvene organizacije, sa ciljem integracije procesa učenja i svakodnevne zdravstvene prakse radi unapređenja kvaliteta zdravstvene zaštite[4]. Savremeni modeli kontinuirane edukacije naglašavaju multidisciplinarni i interprofesionalni pristup, kao i značaj učenja kroz radno okruženje i svakodnevnu kliničku praksu[2, 4].

Poseban značaj ima uključivanje primarne zdravstvene zaštite u programe kontinuirane edukacije, jer se na ovom nivou zdravstvenog sistema ostvaruje prvi kontakt sa pacijentima, prati zdravstveno stanje populacije i sprovode aktivnosti promocije zdravlja i prevencije bolesti. Kontinuirana edukacija doprinosi razvoju kompetencija zdravstvenih radnika za pravovremeno prepoznavanje zdravstvenih problema i unapređenje kvaliteta zdravstvenih usluga.

Alekrim i saradnici naglašavaju da kontinuirana medicinska edukacija predstavlja kontinuiran proces učenja i stručnog usavršavanja koji omogućava zdravstvenim radnicima da prate najnovija medicinska dostignuća i adekvatno reaguju u kompleksnim kliničkim situacijama[1]. Lima i saradnici ističu da kvalitet zdravstvene zaštite i uspešnost medicinskih intervencija u velikoj meri zavise od kvalitetnih programa kontinuirane medicinske edukacije[2]. Međutim, pojedina istraživanja ukazuju na postojanje prepreka u realizaciji KME programa. Ibsen i saradnici navode da su najčešće prepreke nedostatak vremena i finansijskih sredstava[3], dok Reis i saradnici ističu značaj zajedničke odgovornosti zdravstvenih radnika, menadžmenta i obrazovnih institucija u održavanju kvaliteta edukativnih programa[4].

U Republici Srbiji kontinuirana medicinska edukacija regulisana je Zakonom o zdravstvenoj zaštiti i predstavlja zakonsku obavezu zdravstvenih radnika. Stručno usavršavanje povezano je sa sistemom licenciranja zdravstvenih radnika i predstavlja uslov za samostalno obavljanje zdravstvene delatnosti. Nikolić-Mandić i saradnici ukazuju na potrebu unapređenja organizacionih modela kontinuirane edukacije u Srbiji i većeg uključivanja medicinskih fakulteta u razvoj savremenih edukativnih programa[5].

Introduction

Continuous Medical Education (CME) is one of the key factors in the professional development of healthcare workers and serves as an important mechanism for improving the quality of healthcare[1]. It enables the continuous renewal and expansion of knowledge and skills in accordance with contemporary scientific achievements, technological progress, and changes in the organization of health systems[2]. A modern approach to CME emphasizes targeted, problem-oriented programs designed to meet the needs of both health institutions and the population. Particular importance is placed on the immediate application of acquired knowledge in clinical practice[3].

The concept of Continuous Medical Education (CME) was developed in the early 1980s in Latin America under the sponsorship of the Pan American Health Organization, with the aim of integrating the learning process into everyday health practices to improve the quality of healthcare[4]. Contemporary models of CME emphasize a multidisciplinary and interprofessional approach, as well as the importance of learning within the workplace and through daily clinical practice[2,4].

Special importance is given to the inclusion of primary healthcare in continuous education programs, as it represents the first point of contact between patients and the health system. Primary care providers continuously monitor the health status of the population and carry out activities related to health promotion and disease prevention. Continuous education contributes to the development of competencies among health workers, enabling them to recognize health problems in a timely manner and to improve the quality of healthcare services.

Alekrim et al. emphasize that Continuous Medical Education (CME) represents an ongoing process of learning and professional development, enabling health workers to keep pace with the latest medical achievements and to respond effectively in complex clinical situations[1]. Lima et al. highlight that the quality of healthcare and the success of medical interventions largely depend on the availability of well-structured CME programs[2]. However, some studies indicate that there are obstacles to the effective implementation of CME. According to Ibsen et al., the most common barriers are lack of time and financial resources[3], while Reis et al. stress the importance of shared responsibility among healthcare workers, management teams, and educational institutions in maintaining high-quality educational programs[4].

In the Republic of Serbia, Continuous Medical Education (CME) is regulated by the Health Care Act and constitutes a legal obligation for healthcare workers. Professional development is closely linked to the licensing system and serves as a prerequisite for independent practice. Nikolic-Mandic et al. emphasize the necessity of improving organi-

Razvoj digitalnih tehnologija omogućio je i razvoj *on-line* platformi za kontinuiranu medicinsku edukaciju, koje omogućavaju zdravstvenim radnicima pristup stručnim predavanjima, vebinarima, podkastima i drugim oblicima savremenog stručnog usavršavanja.

Kontinuirana medicinska edukacija ima značajnu ulogu i u održivosti zdravstvenog sistema. Edukovani zdravstveni radnici mogu efikasnije primenjivati savremene medicinske metode, uvoditi inovacije i smanjivati rizik od medicinskih grešaka, čime se direktno doprinosi kvalitetu zdravstvene zaštite i stabilnosti sistema[6].

Savremeni zdravstveni sistemi suočavaju se sa brojnim izazovima, među kojima se posebno izdvajaju starenje populacije, porast hroničnih bolesti i migracija zdravstvenih radnika. Globalne procene ukazuju na značajan nedostatak zdravstvenog kadra u narednim decenijama[7], dok migracija zdravstvenih radnika predstavlja jedan od ključnih izazova održivosti zdravstvenih sistema u mnogim zemljama, uključujući i zemlje jugoistočne Evrope[8, 9,10].

Ciljevi

- Analizirati demografske karakteristike ispitanika (pol, uzrast, zanimanje, mesto zaposlenja) i njihov uticaj na učešće u KME programima.
- Ispitati motivaciju ispitanika za učešće u KME programima u odnosu na njihovo radno mesto i obrazovno iskustvo.
- Evaluirati zadovoljstvo dosadašnjim KME programima i identifikovati ključne faktore koji utiču na zadovoljstvo učesnika.
- Prepoznati oblasti za unapređenje KME programa na osnovu analiza potreba i zadovoljstva ispitanika.

Metod

Istraživanje je podeljeno u dve tematske celine. Prvi deo obuhvata definisanje osnovnih pojmova vezanih za KME/KPO programe u Srbiji, uključujući organizaciju, akreditaciju i validaciju programa. Posebno je analizirana dostupnost informacija zdravstvenim radnicima o planiranim programima kontinuirane edukacije, kao i značaj primene informacionih tehnologija i *on-line* platformi za popularizaciju edukacije. Drugi deo istraživanja predstavlja empirijsku studiju preseka sa ciljem ispitivanja zadovoljstva i motivacije zdravstvenih radnika Doma zdravlja Kruševac i Opšte bolnice Kruševac za učešće u KME programima.

zational models of continuous education in Serbia, as well as the greater involvement of medical universities in the development of contemporary educational programs[5].

The development of digital technologies has enabled the creation of online platforms for Continuous Medical Education (CME), providing access to lectures, webinars, podcasts, and other forms of professional development for healthcare workers.

Continuous Medical Education (CME) also plays an important role in ensuring the sustainability of the health system. Well-trained healthcare workers are able to efficiently apply modern medical methods, introduce innovations, and reduce the risk of medical errors, thereby directly contributing to both the quality of healthcare and the stability of the system[6].

Modern health systems face numerous challenges, including population aging, the rise of chronic diseases, and the migration of healthcare workers. Global estimates suggest a significant shortage of healthcare professionals in the decades ahead[7], while the migration of healthcare workers remains one of the key challenges to the sustainability of health systems in many countries, insluding those in Southeast Europe[8,9,10].

Objectives

- Analize demographic characteristics of the participants (gender, age, profession, working place) and their influence on the participation in CME programs.
- To examine the motivation of participants in engaging with CME programs, we analyzed their responses in relation to their workplace setting and educational background.
- Evaluate the satisfaction with previous CME programs and identify key factors influencing the participants' satisfaction.
- Recognize the areas for improvement of CME programs, based on analysis of the needs and participants' satisfaction.

Method

The research was divided into two thematic sections. The first part encompassed the definition of basic concepts related to CME/CPT programs in Serbia, including their organization, accreditation, and program validation. We specifically analyzed the availability of information for healthcare workers regarding planned programs of continuous education, as well as the importance of applying informational technologies and online platforms to promote education. The second part of the study consisted of an empirical cross-sectional analysis aimed at examining the satisfaction and motivation of healthcare workers from the Primary Healthcare Center Krusevac and the General Hospital Krusevac to participate in CME programs.

Za potrebe istraživanja formulisana je anketa na *Google Forms* platformi koja je u jednomesečnom periodu, septembar 2024. godine, prosleđena zdravstvenim radnicima OB i DZ Kruševac. Anketa je anonimna, podeljena u dve sekcije: prva se odnosi na socio-demografske podatke (5 pitanja o polu, starosti, obrazovanju i radnom mestu), dok druga, sa 14 pitanja, ispituje iskustva i stavove prema kontinuiranoj edukaciji, uključujući i otvorena pitanja za sugestije i motivacione smernice.

Rezultati

U anketi je učestvovalo 77 ispitanika, od čega je 85,7% žena i 14,3% muškaraca, što ukazuje na dominantnu zastupljenost žena u zdravstvenim profesijama i veću spremnost žena da učestvuju u anketi. Prema starosnoj strukturi ispitanika najviše odgovora bilo je u grupi 40–49 godina (41,6%), dok su najmanje zastupljene grupe 20–29 i preko 60 godina (po 6,5%). Ovaj podatak ukazuje da je pozitivan odnos prema anketi bio među radno aktivnom populacijom, tzv. srednje životno doba što upućuje na održavanje želje za usavršavanjem i napredovanjem tokom čitavog radnog veka, ali nas takođe upućuje na potrebu za boljom motivacijom mladih koji su na početku karijere i penzionera koji i dalje imaju šta da prenesu mlađim generacijama. Doprinos ovome daje najveći broj ispitanika sa radnim stažom od 10 do 20 godina (42,9%), što potvrđuje stabilnost i iskustvo u poslu. Prema nivou obrazovanja, učestvovanje u anketi podržalo je 62,3% medicinskih sestara/tehničara, dok lekari specijalisti čine 23,4%. Većina je zaposlena u Opštoj bolnici Kruševac (59,7%) ili Domu zdravlja Kruševac (31,2%) (Tabela 1).

For the purposes of our research, we designed a survey using the Google Forms platform. The survey was conducted over the course of one month, in September 2024, and was distributed to healthcare workers at the Primary Healthcare Center Krusevac and the General Hospital Krusevac. Participation was anonymous, and the survey was divided into two sections: the first included five questions on socio-demographic characteristics (gender, age, education, and workplace), while the second contained 14 questions examining experiences and attitudes toward continuous education. This section also included open-ended questions allowing participants to provide suggestions and motivational guidelines.

Results

A total of 77 participants took part in our survey, of whom 85.7% were women and 14.3% men, reflecting both the predominance of women in the health professions and their greater willingness to participate in the study. Regarding age distribution, the largest proportion of responses came from the 40–49 age group (41.6%), while the fewest responses were recorded in the 20–29 and over-60 age groups (6.5% each). These findings suggest that positive attitudes toward the survey were most evident among actively employed, middle-aged healthcare workers, indicating a strong desire for continuous professional development throughout their careers. At the same time, the results highlight the need to strengthen motivation among younger professionals at the beginning of their careers, as well as among retirees, who still have valuable knowledge and experience to share with younger generations. The largest contribution came from participants with 10 to 20 years of work experience (42.9%), confirming both professional stability and accumulated expertise. With regard to educational level, 62.3% of the participants were nurses/technicians, while 23.4% were specialist physicians who supported the survey. The majority of respondents were employed at the General Hospital (59.7%) and the Primary Healthcare Center Krusevac (31.2%) (Table 1).

Tabela 1. Socio-demografske karakteristike ispitanika
Table 1. Socio-demographic characteristics of respondents

Karakteristike/Characteristics	Broj ispitanika/Number of participants	Procentualno učešće/ Percentage
Pol/Gender		
Ženski/Female	66	85,7
Muški/Male	11	14,3
Uzrast (u godinama)/**Age** (in years)		
40–49	32	41,6
30–39	22	28,6
50–59	13	16,9
20–29	5	6,5
Preko 60/over 60	5	6,5
Zanimanje/Profession		
Medicinska sestra/tehničar/Nurse/technician	48	62,3
Lekar specijalista/Specialist physician	18	23,4
Lekar na specijalizaciji/Resident physician	5	6,5
Lekar opšte prakse / klinički lekar/ General physician/ clinician	3	3,9
Penzioner/Pensioner	2	2,6
Biohemijski tehničar / laborant/Biochemical technician/Lab worker	1	1,3
Nivo obrazovanja/doškolovanje nakon osnovnog obrazovanjaLevel of education/ Additional training after basic education		
Da/Yes	53	68,8
Ne/No	24	31,2
Mesto trenutnog zaposljenja/Current work place		
Opšta Bolnica Kruševac/General Hospital Krusevac	46	59,7
Dom Zdravlja Kruševac/Primary Healthcare Center Krusevac	24	31,2
Privatni sector/Private sector	5	6,5
Penzioner, privatni sector/Pensioner/private sector	1	1,3
Penzioner/Pensioner	1	1,3
Godine radnog staža/Work experience		
Manje od 5 godina/Less than 5 years	5	6,49%
10–20 godina/years	33	42,86%
20–30 godina/years	19	24,68%
5 – 10 godina/years	15	19,48%
preko 30 godina/over 30 years	5	6,49%

Glavni motivi su sakupljanje bodova/relicenciranje (19,5%), obnova i sticanje novih znanja, razmena iskustava i naučna komunikacija. Postoji značajna negativna korelacija između pola i motivacije (r = -0,25, p = 0,029), što znači da pol ima uticaj na motivaciju, ali slab. Godine starosti i radnog staža nemaju statistički značajan uticaj na motivaciju za učešće (Tabela 2).

The main motives identified were re-licensing requirements (19.5%), the renewal and acquisition of new knowledge, the exchange of experiences, and scientific communication. A significant negative correlation was found between gender and motivation (r = -0.25, p = 0.029), indicating that gender does influence motivation, although the effect is weak. Neither age nor work experience showed a statistically significant impact on participation motivation (Table 2).

Tabela 2. Motivacija za učešće u kontinuiranoj edukaciji
Table 2. Motivation for participation in continuous education

MOTIVACIJA/MOTIVATION	Broj ispitanika/ Number of participants	Procenat/ Percentage
SAKUPLJANJE BODOVA/RELICENCIRANJE/COLLECTION OF CREDITS/RELICENCING	15	19,5
SAKUPLJANJE BODOVA/RELICENCIRANJE, OBNOVA STEČENOG ZNANJA I ISKUSTVA, STICANJE NOVIH ZNANJA, RAZMENA ISKUSTVA I INFORMACIJA, NAUČNA KOMUNIKACIJA/ COLLECTION OF CREDITS/RELICENCING, RENEWAL OF ACQUIRED KNOWLEDGE AND EXPERIENCE, ACQUISITION OF NEW COMPETENCIES, EXCHANGE OF PROFESSIONAL INFORMATION, AND SCIENTIFIC COMMUNICATION	14	18,2
STICANJE NOVIH ZNANJA/ ACQUISITION OF NEW COMPETENCIES	11	14,3
STICANJE NOVIH ZNANJA, RAZMENA ISKUSTVA I INFORMACIJA, NAUČNA KOMUNIKACIJA/ ACQUISITION OF NEW COMPETENCIES, EXCHANGE OF PROFESSIONAL INFORMATION, AND SCIENTIFIC COMMUNICATION	9	11,7
SAKUPLJANJE BODOVA/RELICENCIRANJE, STICANJE NOVIH ZNANJA/ COLLECTION OF CREDITS/RELICENCING, ACQUISITION OF NEW COMPETENCIES	7	9,1
SAKUPLJANJE BODOVA/RELICENCIRANJE, OBNOVA STEČENOG ZNANJA I ISKUSTVA, STICANJE NOVIH ZNANJA/ COLLECTION OF CREDITS/RELICENCING, RENEWAL OF ACQUIRED KNOWLEDGE AND EXPERIENCE, ACQUISITION OF NEW COMPETENCIES	4	5,2
RAZMENA ISKUSTVA I INFORMACIJA, NAUČNA KOMUNIKACIJA/ EXCHANGE OF PROFESSIONAL INFORMATION, SCIENTIFIC COMMUNICATION	4	5,2
OBNOVA STEČENOG ZNANJA I ISKUSTVA, STICANJE NOVIH ZNANJA, RAZMENA ISKUSTVA I INFORMACIJA, NAUČNA KOMUNIKACIJA/ RENEWAL OF ACQUIRED KNOWLEDGE AND EXPERIENCE, EXCHANGE OF PROFESSIONAL INFORMATION, AND SCIENTIFIC COMMUNICATION	3	3,9
OBNOVA STEČENOG ZNANJA I ISKUSTVA/ RENEWAL OF ACQUIRED KNOWLEDGE AND EXPERIENCE	3	3,9
SAKUPLJANJE BODOVA/RELICENCIRANJE, OBNOVA STEČENOG ZNANJA I ISKUSTVA/ COLLECTION OF CREDITS/RELICENCING, RENEWAL OF ACQUIRED KNOWLEDGE AND EXPERIENCE	3	3,9
OBNOVA STEČENOG ZNANJA I ISKUSTVA, STICANJE NOVIH ZNANJA/ RENEWAL OF ACQUIRED KNOWLEDGE AND EXPERIENCE, ACQUIRING NEW KNOWLEDGE	2	2,6
SAKUPLJANJE BODOVA/RELICENCIRANJE, STICANJE NOVIH ZNANJA, RAZMENA ISKUSTVA I INFORMACIJA, NAUČNA KOMUNIKACIJA/ COLLECTION OF CREDITS/ RELICENCING, ACQUIRING NEW KNOWLEDGE, EXCHANGE OF PROFESSIONAL INFORMATION, AND SCIENTIFIC COMMUNICATION	2	2,6

U programima KME u prethodnih godinu dana učestvovalo je 79,2% ispitanika, dok se u pogledu *on-line* edukacija ili vebinara 59,7% ispitanika izjasnilo pozitivno. Kao najveće prepreke za pohađanje KME markirani su finansijska barijera (27,3%) i organizacija posla (24,7%). Prema dužini trajanja i organizaciji programa najzastupljeniji su višednevni tematski seminari (29,9%) i jednodnevna predavanja (27,3%). Optimalan broj učesnika u programu je do 25 (53,3%) ili 25–50 (36,4%), što ukazuje na sklonost ka radu u manjim grupama. Značajan deo ispitanika (37,7%) smatra da KME podrazumeva sticanje i obnovu praktičnih veština (Tabela 3).

Approximately 79.2% of participants reported taking part in CME during the previous year, while 59.7% attended online education or webinars. The main obstacles to participation in CME were financial constraints (27.3%) and work organization (24.7%). Regarding program duration and structure, the most common formats were thematic seminars lasting several days (29.9%) and one-day lectures (27.3%). The optimal number of participants was considered to be up to 25 (53.3%) or between 25 and 50 (36.4%), indicating a preference for smaller group settings. A considerable proportion of participants (37.7%) believed that CME should primarily encompass the acquisition and renewal of practical skills (Table 3).

Tabela 3. Učestvovanje u programima KME
Table 3. Participation in CME programs

Učestvovanje u programima KME u prethodnih godinu dana/Participation in CME programs in the previuos year	Broj ispitanika/ Number of participants	Procentualna učestalost/ Percentage
Da/Yes	61	79,2
Ne/No	16	20,8
Učestvovanje u *on-line* programima KME u prethodnih godinu dana/Paricipation in online CME programs in the previous year	Broj ispitanika/ Number of participants	Procentualna učestalost/ Percentage
Da/Yes	46	59,7
Ne/No	31	40,3
Osnovne barijere za pohađanje programa KME/Basic barriers in attending CME programs	Broj ispitanika/ Number of participants	Procentualna učestalost/ Percentage
Finansijska barijera/Financial barrier	21	27,27
Organizacija posla/Work organization	19	24,68
Finansijka barijera, organizacija posla/ Financial barrier, work organization	9	11,69
Jezička barijera/Language barrier	6	7,79
Smenski rad/Shift work	5	6,49
Organizacija posla, smenski rad i finansijska barijera/Work organization, shift work and financial barrier	5	6,49
Organizacija posla, smenski rad/Work organization, shift work	4	5,19
Napredne informacione tehnologije/Cutting-edge information technologies	3	3,9
Napredne informacione tehnologije, jezička barijera, finansijska barijera/ Cutting-edge information technologies, language barrier, financial barrier	2	2,6
Jezička barijera, finansijska barijera/ Language barrier, financial barrier	1	1,3
Organizacija posla, smenski rad, napredne informacione tehnologije/Work organization, shift work, cutting-edge information technologies	1	1,3
Organizacija posla, napredne informacione tehnologije, finansijska barijera/Work organization, cutting-edge information technologies, financial barrier	1	1,3
Dužina trajanja programa KME/Duration of CME program	Broj ispitanika/ Number of participants	Procentualna učestalost/ Percentage
Višednevni tematski seminar sa pojedinačnim predavanjima/Multi-day thematic seminar featuring individual lectures	23	29,87
Jednodnevno/celodnevno predavanje/One-day/full-day lecture	21	27,27
Tematsko predavanje do 2h na kraju radnog dana/nedelje/Thematic lecture for up to 2h at the end of work day/week	18	23,38
Tematsko predavanje 4–6h/Thematic lecture 4-6h	7	9,09
Višednevni tematski seminar sa pojedinačnim predavanjima Tematsko predavanje do 2h na kraju radnog dana/nedelje/Multi-day thematic seminar featuring individual lectures, Thematic lecture up to 2h at tne end of working day/week	4	5,19
Višednevni tematski seminar sa pojedinačnim predavanjima Tematsko predavanje 4–6h/ Multi-day thematic seminar featuring individual lectures, Thematic lecture 4-6h	3	3,9
Tematsko predavanje do 8h/ Thematic lecture up to 8h	1	1,3

Optimalni broj učesnika u programu KME/Optimal number of participants in CME programs	Broj ispitanika/ Number of participants	Procentualna učestalost/ Percentage
Do 25 polaznika tzv rad u malim grupama/Up to 25 participants, so called, work in small groups	41	53,25
25–50 polaznika/25-50 participants	28	36,36
50–100 polaznika/50-100 participants	7	9,09
Preko 100 polaznika tzv rad u velikim grupama/Over 100 participants, so called, work in larger groups	1	1,3
Prema Vašem mišljenju KME podrazumeva/According to your opinion CME implies	Broj ispitanika/ Number of participants	Procentualna učestalost/ Percentage
Sticanje novih praktičnih znanja i veština/Acquiring new practical knowledge and skills	29	37,66
Obnova postojećeg teorijskog i praktičnog znanja, sticanje novog teorijskog i praktičnog znanja/Renewal of existing theoretical and practical knowledge, acquiring new theoretical and practical knowledge	16	20,78
Sticanje novog teorijskog znanja/Acquiring new theoretical knowledge	9	11,69
Sticanje novog teorijskog i praktičnog znanja/Acquiring new theoretical and practical knowledge	7	9,09
Obnova postojećeg i sticanje novog praktičnog znanja/ Renewal of existing and acquiring new practical knowledge,	5	6,49
Sticanje novog teorijskog i praktičnog znanja, obnova postojećeg teorijskog znanja/ Acquiring new theoretical and practical knowledge, renewal of existing theoretical knowledge	3	3,9
Sticanje novih praktičnih i teorijskih znanja i veština, obnova teorijskog znanja/ Acquiring new theoretical and practical knowledge and skills, renewal of of theoretical knowledge	2	2,6
Obnova postojećeg praktičnog znanja i veština/Renewal of existing practical knowledge and skills	2	2,6
Obnova postojećeg praktičnog znanja i veština, sticanje novog teorijskog i praktičnog znanja/ Renewal of existing practical knowledge and skills, acquiring new theoretical and practical knowledge	1	1,3
Obnova postojećeg teorijskog znanja/Renewal of existing theoretical knowledge	1	1,3
Obnova postojećeg praktičnog znanja, sticanje novog teorijskog znanja/Renewal of existing practical knowledge, acquiring new theoretical knowledge	1	1,3
Obnova postojećeg i sticanje novog teorijskog znanja/Renewal of existing and acquiring new theoretical knowledge	1	1,3
Uspešna KME podrazumeva/Successful CME implies	Broj ispitanika/ Number of participants	Procentualna učestalost/ Percentage
Predavanje, diskusija i savladavanje praktičnih veština/Lecture, discussion, and mastery of practical skills	29	37.66
Interaktivno predavanje/Interactive lecture	17	22.08
Predavanje, diskusija i savladavanje praktičnih veština, interaktivno predavanje/ Lecture, discussion, and mastery of practical skills, interactive lecture	10	12.99
Predavanje ex katedra i diskusija na kraju predavanja/Ex cathedra lecture followed by end-of-session discussion	9	11.69
Predavanje ex katedra i diskusija na kraju predavanja, Predavanje, diskusija i savladavanje praktičnih veština/ Ex cathedra lecture followed by end-of-session discussion, Lecture, discussion, and mastery of practical skills,	4	5.19

Predavanje, diskusija i savladavanje praktičnih veština, interaktivno predavanje, predavanje ex katedra/ Lecture, discussion, and mastery of practical skills, interactive lecture, ex cathedra lecture	3	3.9
Interaktivno predavanje, učestvovanje slušaoca tokom predavanja, predavanje ex katedra i diskusija na kraju predavanja, Predavannje, diskusija i savladavanje praktičnih veština/ Interactive lecture, participation of the listeners during the lecture, ex cathedra lecture and end-of-session discussion, Lecture, discussion, and mastery of practical skills,	2	2.6
Predavanje ex katedra/Ex cathedra lecture	1	1.3
Predavanje ex katedra, predavanje, diskusija i savladavanje praktičnih veština/ Ex cathedra lecture, lecture, discussion, and mastery of practical skills,	1	1.3
Interaktivno predavanje, učestvovanje slušaoca tokom predavanja Predavanje ex katedra i diskusija na kraju programa/Interactive lecture, participation of the listeners during the lecture, ex cathedra lecture and end-of-session discussion	1	1.3

Najviše ispitanika je izrazilo zadovoljstvo (41,6% ocenilo sa 5), a prosečna ocena zadovoljstva je 4,03 (na Likertovoj skali 1–5) (Tabela 4).

The majority of participants reported being very satisfied, with 41.6% awarding the highest rating (5). The average satisfaction score was 4.03 on a five-point Likert scale (Table 4).

Tabela 4. Zadovoljstvo dosadašnjim programima KME
Table 4. Satisfaction with previous CME programs

Zadovoljstvo dosadašnjim KME programima/Satisfaction with current CME programs		
Ocena/Rating	**Broj ispitanika/ Number of participants**	**Procenat/ Percentage**
5	32	41,6
3	23	29,9
4	19	24,7
2	2	2,6
1	1	1,3

Ženski pol češće učestvuje u programima edukacije ($p = 0,039$). Mlada populacija, starosna grupa ispitanika 20–29 godina, značajno manje učestvuje ($p < 0,001$) što ukazuje na potrebu za motivacijom u programima KME. Dužina radnog staža, manje od pet godina, značajno utiče na učestvovanje u programima KME ($p = 0,003$) i potvrđuje potrebu za motivacijom mlade populacije i zdravstvenih radnika na početku karijere. Učešće u *on-line* programima KME je značajno češće u starosnoj grupi 50–59 godina ($p = 0,034$), čime se ukazuje da tehnološki razvoj i napredne tehnike ne predstavljaju barijeru (Tabela 5. i 6).

Female healthcare workers participated more frequently in educational programs ($p = 0.039$). The younger age group (20–29 years) participated significantly less ($p < 0.001$), underscoring the need to strengthen motivation within CME programs. Work experience of less than five years had a significant influence on participation in CME ($p = 0.003$), further confirming the importance of motivating younger professionals and those at the beginning of their careers. Participation in online CME programs was significantly more common among the 50–59 age group ($p = 0.034$), indicating that technological advancement and modern methods do not represent barriers (Tables 5 and 6).

Tabela 5. Učestvovanje u programima KME prema karakteristikama ispitanika
Table 5. Participation in CME programs according to the characteristics of the participants

Karakteristike/Characteristics		Da/Yes (n=61)	%	Ne/No (n= 16)	%	p-vrednost/ p-value
Pol/Gender	Ženski/ female	55	52,29	11	13,71	**0,039**
Muški/male	6	8,71	5	2,29		
Godine starosti/Age	20–29	0	3,96	5	1,04	**<0,001**
30–39	20	17,43	2	4,57	0,089	
40–49	24	25,35	8	6,65	0,444	
50–59	13	10,3	0	2,7	**0,01**	
Preko 60/Over 60	4	3,96	1	1,04	0,964	
Godine radnog staža/ Work experience	Manje od 5/Less than 5	1	3,96	4	1.04	**0,003**
	5–10	12	11,88	3	3,12	0,934
	10–20	29	26,14	4	6,86	0,097
	20–30	15	15,05	4	3,95	0,973
	Preko 30/Over 30	4	3,96	1	1,04	0,964
Nivo obrazovanja/ Level of education	Medicinska sestra/Nurse	36	38,03	12	9,97	
	Laboratorijski tehničar/Lab technician	1	0,79	0	0,21	
	Lekar opšte prakse/General physician	3	2,38	0	0,62	
	Lekar na specijalizaciji/ Resident doctor	4	3,96	1	1,04	
	Lekar specijalista/Specialist doctor	15	14,26	3	3,74	
	Penzioner/Pensioner	2	1,58	0	0,42	
Mesto zaposlenja/Work place	Dom zdravlja Kruševac/ Primary Healthcare Center Krusevac	22	19,01	2	4,99	
	Opšta bolnica Kruševac/General Hospital Krusevac	32	36,44	14	9,56	
	Penzioner/Pensioner	1	0,79	0	0,21	
	Privatni sector/Private sector	5	3,96	0		

Tabela 6. Učestvovanje u *on-line* KME programima prema karakteristikama ispitanika
Table 6. Participation in online CME programs according to participants' characteristics

Karakteristike/Characteristics		Da/Yes (n= 46)	%	Ne/No (n= 31)	%	p-vrednost/ p-value
Pol/Gender	Ženski/female	41	39,43	25	26,57	0,297
	Muški/male	5	6,57	6	4,43	
Godine starosti/ AGE	20–29	1	2,99	4	2,01	0,06
	30–39	14	19,12	8	12,88	0,658
	40–49	17	13,14	15	8,86	0,319
	50–59	11	7,77	2	5,23	**0,034**
	Preko 60/Over 60	3	2,99	2	2,01	0,99
Godine radnog staža/Work experience	Manje od 5/Less than 5	2	2,99	3	2,01	
	5–10	6	8,96	9	6,04	
	10–20	23	19,71	10	13,29	
	20–30	11	11,35	8	7,65	
	Preko 30/Over 30	4	2,99	1	2,01	
Nivo obrazovanja/ Level of education	Medicinska sestra/Nurse	23	28,68	25	19,32	
	Laboratorijski tehničar/ Lab technician	0	0,6	1	0,4	
	Lekar opšte prakse/General physician	3	1,79	0	1,21	
	Lekar na specijalizaciji/ Resident doctor	4	2,99	1	2,01	
	Lekar specijalista/ Specialist doctor	15	10,75	3	7,25	
	Penzioner/Pensioner	1	1,19	1	0,81	
Mesto zaposlenja/ Work place	Dom zdravlja Kruševac/ Primary Healthcare Center Krusevac	22	14,34	2	9,66	
	Opšta bolnica Kruševac/ General Hospital Krusevac	20	27,48	26	18,52	
	Penzioner/Pensioner	1	0,6	1	0,4	
	Privatni sector/Private sector	3	2,99	2	2,01	

Diskusija

Istraživanje je obuhvatilo 77 zdravstvenih radnika sa značajnom dominacijom ženskog pola (85,7%), što je u skladu sa strukom gde je zastupljenost žena tradicionalno veća. Starosna struktura pokazuje da je najzastupljenija kategorija 40–49 godina, što ukazuje na zrelost i stabilnost radnog kolektiva, a što potvrđuje i dominacija radnog staža između 10 i 20 godina. Ovi podaci sugerišu da se radi o populaciji sa značajnim radnim iskustvom, što može uticati na motivaciju za kontinuiranom edukacijom.

Motivacija za učešće u programima kontinuirane medicinske edukacije (KME) dominantno je usmerena ka sakupljanju bodova za relicenciranje, ali i ka obnovi i sticanju novih znanja, što ukazuje na kombinaciju formalnih i profesionalnih potreba. Statistički značajna negativna korelacija između pola i motivacije može da sugeriše da muškarci i žene različito poimaju važnost određenih motiva za učešće u KME, što može biti interesantna tema za dalje istraživanje.

Učešće u KME je generalno visoko (79,2%) sa značajnim udelom *on-line* edukacije (59,7%), što pokazuje adaptaciju zdravstvenih radnika na savremene forme učenja. Međutim, finansijske barijere i organizacija posla ostaju glavni izazovi za još širi angažman, što je u skladu sa prethodnim studijama koje ukazuju da su ove prepreke često limitirajući faktori.

Sklonost ka radu u manjim grupama i trajanje programa u vidu višednevnih seminara ili jednodnevnih predavanja sugeriše da ispitanici više vrednuju interaktivne i praktično orijentisane pristupe edukaciji. Ovo je potvrđeno i kroz definiciju uspešnog KME programa koja uključuje predavanje, diskusiju i savladavanje praktičnih veština.

Zadovoljstvo dosadašnjim programima KME je relativno visoko (prosečna ocena 4,03), što ukazuje na uspešnost postojećih programa ali i prostor za dalje unapređenje, posebno u prevazilaženju identifikovanih barijera. Ali se ovde moramo osvrnuti i na istraživanje iz 2021. koje nas upućuje na stagnaciju razvoja programa KME i ističe značaj potrebe širokog uključivanja medicinskih fakulteta i strukovnih škola sa ciljem organizacije, kontrole i vođenja programa KME[5, 9]. Stagnacija razvoja programa KME prisutna je širom sveta, pri čemu dominira uska profesionalna orijentacija i ciljno usmereno delovanje, uz težnju da se bude najbolji u okviru jedne oblasti ili regiona. Iz tog razloga, kako globalno tako i u našoj zemlji, neophodno je razvijati šire sagledavanje profesionalne komunikacije i jačati interprofesionalno obrazovanje[3].

Statistička analiza učestvovanja u KME pokazuje da pol, starosna dob i radni staž imaju različit uticaj na angažman u edukaciji, sa značajnim razlikama posebno u odnosu na pol i starosnu grupu, što može ukazivati na potrebu za ciljanim pristupima u motivaciji i organizaciji edukacionih programa. Ove smernice su u skladu sa znanjem i stavovima rukovodioca RFZO RS o značaju standardizovanih sistema

Discussion

The survey included 77 healthcare workers, with a clear predominance of women (85.7%), which is consistent with the profession where female representation has traditionally been higher. The age distribution showed that the largest proportion of respondents were in the 40–49 age group, reflecting the maturity and stability of the workforce. This finding was further supported by the fact that most participants had 10–20 years of work experience. Taken together, these data suggest that this population possesses substantial professional experience, which likely influences their motivation for continuous education.

Motivation for participation in CME programs is primarily driven by the accumulation of points required for relicensing, but also by the desire to renew and acquire new knowledge, reflecting a combination of formal requirements and professional needs. A statistically significant negative correlation between gender and motivation suggests that men and women may perceive the importance of certain motives for CME participation differently, which could be of interest for further research.

Participation in CME was generally high (79.2%), with notable engagement in online education (59.7%), demonstrating the adaptability of healthcare workers to modern forms of learning. However, financial constraints and work organization remain major challenges to broader participation. This finding is consistent with previous studies, which have shown that such obstacles often represent limiting factors.

The tendency to work in smaller groups, along with program formats such as multi-day seminars or one-day lectures, suggests that participants place greater value on interactive and practice-oriented approaches to education. This was further confirmed by their definition of a successful CME program, which includes lectures, discussions, and the mastery of practical skills.

Satisfaction with previous CME programs was relatively high, with an average rating of 4.03, indicating the success of existing initiatives while also highlighting areas for improvement, particularly in overcoming identified barriers. It is also important to reference a 2021 study, which reported stagnation in the development of CME programs and emphasized the need for broader involvement of medical universities and vocational schools. Such institutions should play a key role in the organization, oversight, and leadership of CME programs[5, 9]. Stagnation in the development of CME programs has been observed worldwide, characterized by a narrow professional orientation and highly targeted activities, often with the tendency to excel in a single field or region. Therefore, it is necessary to foster a broader introspection of professional communication and to strengthen interprofessional education, both within our country and globally.[3].

Statistical analysis of participation in CME programs shows that gender, age, and work experience exert different

menadžmenta i formiranju preporuka koje će omogućiti razvoj i stabilnost zdravstvenog sistema. Ukazuje se na slabe tačke organizacije i mesta gde treba delovati, a usavršavanje i napredovanje je važna karika[8].

Predlozi za dalje korake i preporuke:

• Povećanje učešća mlađih i manje iskusnih radnika u KME programima, jer su trenutno manje uključeni.

• Smanjenje finansijskih i organizacionih prepreka za učešće kroz subvencije, fleksibilnije radno vreme ili bolje organizovane programe.

• Fokus na praktične veštine u programima KME, jer ih većina smatra ključnim za uspeh.

• Promovisanje *on-line* KME programa, jer značajan broj ispitanika već koristi ovu formu edukacije, posebno među starijim grupama.

Značaj studije

Ova studija ima nekoliko ključnih aspekata koji se odnose na unapređenje kontinuiranog medicinskog obrazovanja (KME) u Opštoj bolnici Kruševac i šire.

Razumevanje motivacije i potreba zdravstvenih radnika. Istraživanje motivacije za učešće u KME programima pruža uvid u to šta podstiče zdravstvene radnike na obrazovanje i usavršavanje, što može doprineti boljoj prilagođenosti programa njihovim potrebama i interesovanjima. Ovo je ključno za povećanje angažovanosti i dugoročnog učenja.

Povezanost između demografskih faktora i KME. Ova studija pomaže u identifikaciji ključnih faktora kao što su pol, uzrast, zanimanje i prethodno obrazovanje koji utiču na učešće u KME. Razumevanje ovih faktora može doprineti razvijanju personalizovanih i specifičnih KME programa koji odgovaraju potrebama različitih grupa zdravstvenih radnika.

Poboljšanje kvaliteta KME programa. Identifikovanjem oblasti u kojima zdravstveni radnici nisu u potpunosti zadovoljni, istraživanje može pomoći u unapređenju postojećih KME programa čineći ih efikasnijim, relevantnijim i prilagođenijim potrebama specifičnih vrsta zanimanja unutar zdravstvene ustanove. Ovo može dovesti do boljeg sticanja znanja i veština koje su direktno primenljive u svakodnevnoj praksi.

Razvoj preporuka za politiku i praksu. Na osnovu rezultata, mogu se formulisati preporuke za razvoj budućih KME programa i strategija usmerenih na zdravlje i obrazovanje u Srbiji, sa ciljem poboljšanja profesionalnog razvoja zdravstvenih radnika i kvaliteta zdravstvene zaštite.

Ograničenja studije

Iako je studija korisna, postoje i određene slabosti koje treba uzeti u obzir.

Ograničena veličina uzorka. Rezultati se temelje na relativno malom broju ispitanika, što može ograničiti generalizaciju nalaza na širu populaciju. Takođe, većina ispitanika dolazi iz jednog regiona (Kruševac), što može uticati na regionalnu pristrasnost i smanjiti reprezentativnost uzorka za celu zemlju.

influences on engagement in education, with significant differences particularly related to gender and age. These findings may indicate the need for a targeted approach to motivation and the organization of educational programs. Such guidelines are consistent with the views of the leadership of the Republic Health Insurance Fund of Serbia, which emphasize the importance of standardized management systems and the development of recommendations to ensure the growth and stability of the healthcare system. Weak organizational points have also been identified, highlighting areas where action is required, while upgrading and improvement remain essential links in strengthening the system[8].

Suggestions for further steps and recommendations:

• Efforts should be directed toward increasing the participation of younger and less experienced colleagues in CME programs, given their current low level of involvement.

• Financial and organizational obstacles to CME participation should be reduced by introducing subsidies, implementing flexible working hours, and improving program organization.

• An emphasis on practical skills in CME programs is crucial, since most participants regard them as fundamental to program success.

• Promotion of online CME programs is warranted, given that many participants—especially those in older age groups—are already utilizing this mode of education.

Importance of the study

This study outlines key areas for enhancing CME in the General Hospital Krusevac and more broadly.

Understanding motivation and needs of healthcare workers. Research into the motivation for participation in CME programs provides valuable insight into the factors that encourage healthcare workers to pursue education and professional development. Such understanding can lead to better adaptation of programs to their needs and interests, which is crucial for increasing engagement and fostering long-term learning.

Connection between demographic factors and CME. Our study identifies key factors—such as gender, age, profession, and prior education—that may influence participation in continuing medical education (CME). Recognizing these determinants can support the development of tailored CME programs designed to meet the diverse needs of different groups of healthcare professionals.

Improving quality of CME programs. By identifying areas in which healthcare workers express dissatisfaction, this study may contribute to the enhancement of existing continuing medical education (CME) programs, making them more efficient, relevant, and responsive to the specific needs of different professional groups within the institution. Such improvements can foster more effective acquisition of knowledge and skills, ensuring that learning outcomes are directly applicable to everyday clinical practice.

Mogućnost pristrasnosti u odgovorima. Postoji mogućnost da ispitanici daju odgovore koji su društveno prihvatljiviji ili da se ne osećaju potpuno slobodno u izražavanju nezadovoljstva sa KME programima, što može uticati na tačnost podataka. Na primer, zdravstveni radnici možda neće želeti da javno kritikuju program, naročito ako je vezan za njihov posao ili karijeru.

Kratkoročna procena zadovoljstva. Studija se bazira na trenutnim percepcijama zadovoljstva KME programima, ali ne pruža uvid u dugoročne efekte tih programa na praktičnu primenu stečenih znanja. Dugoročne promene u kvalitetu zdravstvene prakse i ishoda pacijenata nisu obuhvaćene, a to bi mogli biti ključni indikatori uspeha KME programa.

Nedostatak uvida u sadržaj KME programa. Iako su motivacija i zadovoljstvo istraženi, nije detaljno analiziran sadržaj i metodologija samih KME programa. Bez razumevanja koja tačno znanja i veštine učesnici stiču, teško je proceniti efikasnost programa u postizanju svojih ciljeva.

Povezanost sa krajnjim ishodima. Iako studija razmatra motivaciju i zadovoljstvo, ne postoji jasna povezanost između učešća u KME programima i konkretnih poboljšanja u zdravstvenoj praksi ili pacijentovim ishodima. Ovaj nedostatak može ograničiti sposobnost da se dokazuje stvarna vrednost KME za kvalitet zdravstvene zaštite.

Development of politics and practice guidelines. Based on our findings, we can formulate recommendations for the development of future continuing medical education (CME) programs and strategies in Serbia, aimed at strengthening professional development among healthcare workers and enhancing the overall quality of healthcare delivery.

Study limitations

Although this study provides valuable insights, certain limitations should be acknowledged and taken into consideration.

Limitations of the sample size. The results are based on a relatively small sample size, which may limit the generalizability of our findings to the broader population. Furthermore, as the majority of participants were recruited from a single region (Krusevac), the sample may reflect regional biases and reduce its representativeness for the entire country.

Possibility of response bias in the participants' answers. There is a possibility that participants provided socially desirable responses or felt uncomfortable expressing dissatisfaction with CME programs, which may have influenced the validity of the data. For instance, healthcare workers might be reluctant to publicly criticize programs, particularly when these are closely linked to their workplace or career advancement.

Short-term satisfaction assessment. This study is based on current perceptions of satisfaction with CME programs and does not provide insight into their long-term effects on the practical application of acquired knowledge. Long-term changes in the quality of healthcare practice and patient outcomes were not assessed, although these may represent key indicators of the overall success of CME initiatives.

Lack of insight into the content of CME programs. Although motivation and satisfaction were examined, the content and methodology of CME programs were not analyzed in detail. Without a clear understanding of the specific knowledge and skills participants acquire, it is difficult to accurately assess the effectiveness of these programs in achieving their intended goals.

Connection with end outcomes. While motivation and satisfaction were examined, the content and methodology of CME programs were not explored in depth. Without a detailed understanding of the specific knowledge and skills participants acquire, it is challenging to rigorously evaluate the effectiveness of these programs in achieving their intended objectives.

Zaključci

1. Dominacija ženskog pola i srednje starosne dobi potvrđuju profil stabilne i iskusne radne snage u zdravstvenom sektoru.

2. Motivacija za učešće u KME je višestruka sa fokusom na relicenciranje i profesionalni razvoj, što treba imati u vidu pri dizajnu programa.

3. Visok nivo učešća u KME, uključujući i *on-line* forme, ukazuje na spremnost za učenje i adaptaciju na savremene edukacione modele.

4. Finansijske prepreke i organizacija rada su ključni faktori koji ograničavaju učestvovanje u edukativnim programima, što zahteva institucionalne mere i podršku.

5. Sklonost ka malim grupama i interaktivnim programima naglašava potrebu za praktičnim i participativnim pristupom u kontinuiranoj edukaciji.

6. Visok nivo zadovoljstva dosadašnjim programima potvrđuje kvalitet ponuđenih sadržaja, ali ukazuje i na mogućnosti za dalja poboljšanja.

7. Statistički značajne razlike u motivaciji i učešću u KME ukazuju na potrebu za personalizovanim pristupom u planiranju edukacionih aktivnosti uzimajući u obzir pol, starosnu strukturu i radni staž.

Conclusions

1. The predominance of female participants and those in middle age reflects the profile of a stable and experienced workforce within the healthcare sector.

2. Motivation for participation in CME is multifaceted, with a primary emphasis on relicensing and professional development. These factors should be carefully considered when designing future programs to ensure they align with the needs and expectations of healthcare professionals.

3. The high level of participation in CME programs, including online formats, demonstrates healthcare professionals' readiness for continuous learning and their adaptability to modern educational models.

4. Financial constraints and organizational challenges are key factors limiting participation in educational programs, underscoring the need for institutional measures and stronger support mechanisms.

5. The preference for small groups and interactive formats highlights the importance of adopting a practical, participatory approach in continuing education.

6. The high level of satisfaction with current CME programs confirms the quality of the content offered, while also indicating opportunities for further improvement.

7. Statistically significant differences in motivation and participation in CME highlight the need for a more personalized approach to planning educational activities, taking into account factors such as gender, age, and work experience.

Reference/ Literatura

1. de Abreu Alecrim TC, de Albuquerque EDS, de Lira Silva M, de Santana JDL, de Quental OB. Importance of continuing education in urgency and emergency practices in emergency care units. *hs* [Internet]. 2025 [cited 2025 Oct 26];5(01):69–80. Available from: https://www.periodicojs.com.br/index.php/hs/article/view/2389
2. da Cruz Lima A, Barbosa CL, do Amaral Chaves SM, Oliveira JG, Queiroz TL, Calado RD. Potential of continuing education in health of improvement practices in urgency and emergencies in emergency care units–UPA-24h. IFAC-PapersOnLine. 2022;55(10):906–9.
3. Ibsen H, Lillevang G, Søndergaard J, Kjaer NK. "We don't need no education" – a qualitative study of barriers to continuous medical education among Danish general practitioners. BMC Med Educ 2023;23(1):450 (2023).
4. Reis T, Faria I, Serra H, Xavier M. Barriers and facilitators to implementing a continuing medical education intervention in a primary health care setting. BMC Health Serv Res. 2022;22(1):638.
5. Nikolić Mandić R, Bjegović Mikanović V, Vencel H, Lalić N, Laser U, Nešić D. Stagnacija kontinuirane medicinske edukacije u Srbiji u periodu 2011-2017. godine. Srpski arhiv za celokupno lekarstvo. 2021;149(5-6):334-42.
6. Luque-Alcaraz OM, Aparicio-Martinez P, Gomera A, Vaquero-Abellan M. Nurses as agents for achieving environmentally sustainable health systems: A bibliometric analysis. J Nurs Manag. 2022;30(8): 3900–8.
7. Effects of health worker shortage ripple from poor to rich countries. Financial Times [Internet]. 2024 May 22 [cited 2025 Nov 24]. Available from: https://www.ft.com/content/cd078034-7184-4172-ae72-46880526bf42
8. Tomanović G. Znanje i stavovi rukovodilaca o primeni standardizovanih sistemima menadžmenta u Republičkom fondu za zdravstveno osiguranje. Zdravstvena zaštita. 2023;52(1):50–73.
9. Živanović D, Javorac J, Dimoski Z, Šumonja S. Profesija sestrinstva u savremenom sistemu zdravstvene zaštite i javnom zdravlju - nove uloge i izazovi. Zdravstvena zaštita. 2021;50(2):73–86.
10. Mrkić M, Ilić Todorović V, Jovanović Mirković J, Radosavljević D, Despotović M, Aleksopulos H. Ključni izazovi u reformisanju zdravstvenog sistema Srbije u uslovima pandemije COVID-19 na putu ka održivom i decentralizovanom sistemu. PONS - medicinski časopis. 2022;19(1):26-32. doi: 10.5937/pomc19-36723

Primljen - Received - 19.11.2025.
Ispravljen - Corrected - 02.03.2026.
Prihvaćen - Accepted - 03.03.2026.