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PITANJE SAMOOBRAZOVANJA U KONTINUIRANOM PROFESIONALNOM RAZVOJU STOMATOLOGA UKRAJINE U USLOVIMA PANDEMIJE VIRUSA COVID -19

ISSUES OF SELF-EDUCATION IN THE CONTINUOUS PROFESSIONAL DEVELOPMENT OF DENTISTS OF UKRAINE IN THE CONDITIONS OF THE COVID-19 PANDEMIC

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Sažetak

Uvod: Brzi razvoj stomatološke industrije i svakodnevna praksa stomatologa zahtevaju stalno učenje, budući da je dopunjavanje stečenih znanja i vještina osnova za formiranje visokokvalifikovanog specijaliste. Samousmereno učenje, posebno čitanje i svrshodana upotreba medicinske literature, konstantno doprinose razvoju mišljenja, koje treba da odgovara savremenom nivou nauke kod medicinskih stručnjaka, u kontekstu pandemije virusa COVID-19.

Cilj studije bio je da se prate i analiziraju načini dobijanja novih naučnih i praktičnih znanja od strane stomatologa, za unapređenje njihove stomatološke prakse.

Materijali i metode. U studiji je učestvovalo 4.026 stomatologa, koji su popunili on-line upitnike za stomatologe.

Rezultati. Za unapređenje svakodnevne stomatološke prakse, stomatolozi dodatno koriste informacije, koje se pružaju u sklopu predavanja na naučnim i praktičnim događajima (80,19%) i koje se mogu naći na internet resursima (71,48%). Za stomatologe, najpogodniji način čitanja naučnih i praktičnih članaka bila je elektronska verzija na sajtovima časopisa (62,20%). Informisanje putem članaka sa dobro ilustrovanim kliničkim slučajevima (72,66%) i putem predavanja, uz praktične materijale (64,75%) od najvećeg su interesa za veliku većinu stomatologa.

Zaključak. Analiza rezultata pokazala je to da su glavni načini dobijanja naučnih i praktičnih informacija za stomatologe, u procesu samostalnog učenja, aktivno uključivanje materijala dobijenih na predavanjima, naučnim i praktičnim događajima, podaci sa interneta, iz naučne i metodološke literature, iz naučnih članaka domaćih i stranih stručnih časopisa na engleskom jeziku.

Cljučne reči: samousmereno učenje, naučna i praktična znanja, stručne publikacije, praćenje

Abstract

Background: The rapid development of the dental industry and the daily practice of dentists necessitate constant learning because replenishing the stock of acquired knowledge and skills is the basis for the formation of a highly qualified specialist. Self-directed learning, especially reading and purposeful work with medical literature, constantly contribute to the development of thinking, which should correspond to the modern level of science in medical professionals in the context of the Covid-19 pandemic.

The aim of the study was to monitor and analyze ways to obtain new scientific and practical knowledge by dentists to improve their dental practice.

Materials and methods: The study involved 4.026 dentists who filled out for dentists online.

Results: To improve daily dental practice, dentists additionally use information that is provided in lectures at scientific and practical events (80.19%) and Internet resources (71.48%). For dentists, the most convenient way to read scientific and practical articles was through the electronic version on the websites of the journals (62.20%). Informing doctors with articles with well-illustrated clinical cases (72.66%) and lectures along with practical materials (64.75%) are of the greatest interest to the vast majority of dentists.

Conclusion: According to the analytical results, it is shown that the main ways of obtaining scientific and practical information for dentists in the process of self-directed learning is the active involvement of the materials gained on the lectures, scientific and practical events, from Internet resources, from scientific and methodological literature, from scientific articles of domestic and foreign English-language professional journals.

Key words: self-directed learning, scientific and practical knowledge, professional publications, monitoring.

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Uvod

Brzi razvoj stomatološke industrije, kao nauke, kao i uvođenje savremenih tehnologija u medicinsku praksu zahtevaju stalno usavršavanje stomatologa. Održavanje stručne kompetencije i kvaliteta pružanja kvalifikovane medicinske nege stanovništvu zemlje zavisi od stalnog usavršavanja, ažuriranja znanja i usavršavanja praktičnih veština stomatologa tokom njihove karijere¹.

Ovo pitanje posebno je aktuelno u kontekstu pandemije virusa COVID-19, jer je oralna sluzokoža „arena“ za efekte virusa COVID-19, u vidu kandidijaze, herpesa, aftoznih lezija i glosodinije^{2,3,4}. Istovremeno, kvalitet pružene usluge i znanje stomatologa dolaze u prvi plan, kako bi se obezbedilo pružanje visokokvalifikovane nege obolelim ljudima, kroz interdisciplinarnu integraciju i kontinuirano stručno usavršavanje specijalista u ovoj oblasti medicine^{5,6,7,8}.

Stoga je u cilju poboljšanja kvalifikacija lekara, sistem stalnog stručnog usavršavanja ažuriran u Rezoluciji Kabineta ministara Ukrajine br. 302 „O davanju saglasnosti na Pravilnik o sistemu stalnog stručnog usavršavanja zdravstvenih radnika“ 28. marta 2018. godine. Prema ovoj odluci, kontinuiran proces usavršavanja i usavršavanja stručnih kompetencija stomatologa mora da se nastavi tokom čitavog perioda njihove profesionalne karijere, počevši od trenutka medicinskog obrazovanja. Sada lekari specijalisti imaju mogućnost da biraju način kontinuiranog stručnog usavršavanja, kako bi dobili 50 bodova na godišnjem nivou (CME – Continuing Medical Education – krediti) za obrazovni portfolio. Stomatolozi mogu prisustvovati predavanjima, seminarima, radionicama, simpozijumima, konferencijama, kongresima ili kursovima osvežavanja znanja u postdiplomskim medicinskim ustanovama. Međutim, kontinuirani profesionalni razvoj može biti nedovoljan ili manje efikasan, ukoliko je bez čvrste osnove, koja podrazumeva veštine stečene kroz obuku, koju su stomatolozi sami izabrali^{9,10,11}.

Samousmereno učenje je samostalna kognitivna aktivnost čoveka usmerena ka postizanju određenih ličnih ciljeva, odnosno zadovoljenju sazajnih interesovanja i profesionalnih potreba. Osnovni cilj samousmerenog učenja za stomatologe je kontinuirano dopunjavanje stečenih znanja i veština, koje su osnova za podršku i povećanje profesionalne kompetencije za pružanje visokokvalitetnih stomatoloških usluga.

Introduction

The rapid development of the dental industry as a science and the introduction of modern technologies in medical practice necessitate the constant development of dentists. The maintenance of professional competence and the quality of the provision of qualified medical care to the population of the country depends on the constant training, updating of knowledge and improvement of practical skills of dentists during their medical career¹.

This issue is especially relevant in the context of the Covid-19 pandemic, as the oral mucosa is an “arena” for the effects of Covid-19, in the form of candidiasis, herpes, aphthous lesions and glossodynia²⁻⁴. At the same time, the quality and format of knowledge of dentists come to the forefront to ensure the provision of highly qualified care to this contingent of people through interdisciplinary integration and continuous professional development of specialists in this field of medicine⁵⁻⁸.

Therefore, in order to improve the qualifications of doctors, the system of continuous professional development was updated in the Resolution of the Cabinet of Ministers of Ukraine No. 302 "On Approval of the Regulations on the System of Continuous Professional Development of Healthcare Specialists" dated March 28, 2018. According to this resolution, the continuous process of training and improving the professional competencies of dentists must continue throughout the entire period of their professional activity from the moment of medical education. Now medical specialists have the opportunity to choose the format of continuous professional development in order to receive 50 points (CME – Continuing Medical Education – credits) annually for their own educational portfolio. Dentists may attend lectures, seminars, workshops, symposiums, conferences, congresses, or refresher courses in postgraduate medical institutions. However, continuing professional development may be insufficient or less effective without a solid foundation based on self-directed learning skills⁹⁻¹¹.

Self-directed learning is an independent cognitive activity of a person aimed at achieving certain personal goals, namely the satisfaction of cognitive interests and professional needs. The main goal of self-directed learning for dentists is the continuous replenishment of the acquired knowledge and skills that are the basis for supporting and increasing professional competence for the provision of high-quality dental services.

Godine 1997. Garrison je predložio model samousmerenog učenja¹². Ovaj model učenja zasniva se na motivaciji, koja je glavni ključ samostalnog učenja, kao i samopraćenju (odgovornost) i samoupravljanju (kontrola), koji doprinose kontinuiranom učenju i određuju njegov kvalitet i njegovu efikasnost. Danas postoji mnogo načina da se obuču medicinski stručnjaci i unaprede njihove veštine, a kako bi se obezbedili i postigli visok profesionalizam u lečenju i profesionalni razvoj samog lekara¹³.

Cilj rada bila je analiza oblika i postupaka u samostalnom učenju stomatologa, u cilju formiranja profesionalnih kompetentnih veština.

Materijali i metode

U istraživanju je učestvovalo 4026 stomatologa različitog uzrasta, koji su u martu 2021. godine popunjavali upitnik tokom on-line naučnih i praktičnih događaja i konferencija stručnih škola za stomatologe. Upitnik je pripremila NVO „Ukrajinsko stomatološko udruženje“ i uključivao je i socio-demografska pitanja i pitanja za određivanje načina i pristupa za dobijanje novih naučnih i praktičnih saznanja. Ispitanici su bili stomatolozi svih specijalnosti. Ankete stomatologa i analiza rezultata studije sprovedene su pod rukovodstvom NVO „Ukrajinsko stomatološko udruženje“, grupe kompanija „MedExpert“ i Ukrajinske rejting agencije.

Korišćena je analitička metoda istraživanja i strukturno-logička analiza. U analizi rezultata podataka primenjene su metode statističke analize (StatSoftInc., serijski broj AGAR909E415822FA).

Rezultati

Prema rezultatima studije, od 4026 ispitanika, 70,25% činile su žene, a 29,75% činili su muškarci. Prema starosnoj dobi, 3,40% činila su lica starosti do 25 godina, 15,08% činile su osobe od 26 do 30 godina, 28,94% anketiranih stomatologa činile su osobe od 31 do 40 godina, 25,62% osobe od 41 godine do 50 godina i 26,96% osobe starije od 50 godina.

Za lekarsku praksu, uvođenje najnovijih visokotehnoških metoda dijagnostike i lečenja teških stomatoloških oboljenja, izvori informacija su osnovni aspekt. Upitnik je obuhvatio proučavanje izvora za dobijanje stručnih informacija. Prema rezultatima studije, u cilju dobijanja novih informacija i usavršavanja praktičnih i teorijskih znanja, 80,19% stomatologa radije prisustvuje

In 1997, Garrison proposed a model of self-directed learning¹². It is based on motivation, which is the main key to independent learning, as well as self-monitoring (responsibility) and self-management (control), which all contribute to continuous learning, and determine its quality and effectiveness. Today, there are many ways to train and improve the skills of medical professionals to ensure and achieve high professionalism in the results of treatment and professional development of the doctor himself¹³.

The aim of the study was to analyze the forms and approaches in self-directed learning of dentists for the formation of professional competence skills.

Materials and methods

The study involved 4,026 dentists of different ages who filled out a questionnaire during scientific and practical events and conferences of professional schools for dentists online in March 2021. The questionnaire was prepared by the NGO "Ukrainian Dental Association" and included both socio-demographic questions and questions to determine the ways and approaches to obtain new scientific and practical knowledge. The respondents were dentists of all specialties. Surveys of dentists and analysis of the results of the study were conducted under the leadership of the NGO "Ukrainian Dental Association", the group of companies "MedExpert" and the Ukrainian rating agency.

The analytical method of research and structural-logical analysis were used. Statistical analysis methods (StatSoftInc., Serial number AGAR909E415822FA) were applied in the analysis of the data results.

Results

According to the results of the study, out of 4,026 respondents, 70.25% were females, 29.75% were males. According to age, 3.40% were persons under 25 years old, 15.08% persons from 26 to 30 years old, 28.94% of the interviewed dentists were persons from 31 to 40 years old, 25.62% persons from 41 to 50 years old, and 26.96% persons over 50 years old.

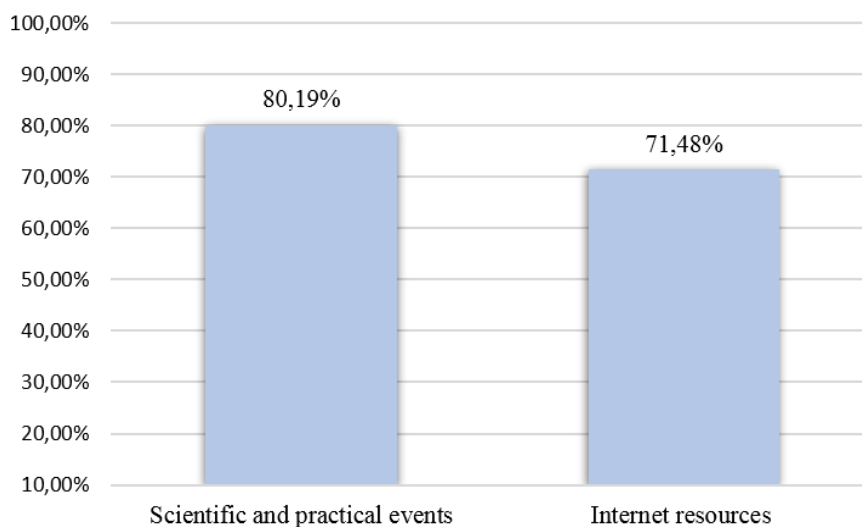
For the practice of a doctor, the introduction of the latest high-tech methods of diagnosis, treatment, and major dental diseases, the sources of information are a fundamental aspect. The questionnaire included the study of sources of professional information.

naučnim i praktičnim događajima, dok 71,48% ispitanika koristi internet, kao izvor potrebnih informacija (Slika 1.).

Svaki drugi stomatolog (54,88%) među ispitanicima bira čitanje naučne i metodičke literature (knjige i uputstva), kao glavni izvor za prikupljanje novih informacija; 40,07% bira naučne članke u domaćim stručnim časopisima. Važna tačka ankete bilo je utvrđivanje nivoa znanja stranog jezika, odnosno engleskog, na kome je nova medicinska literatura bila dostupna. Među ispitanicima, samo 18,55% stomatologa koristi naučne članke u stranim stručnim časopisima za samostalnu obradu naučnih informacija (Slika 2).

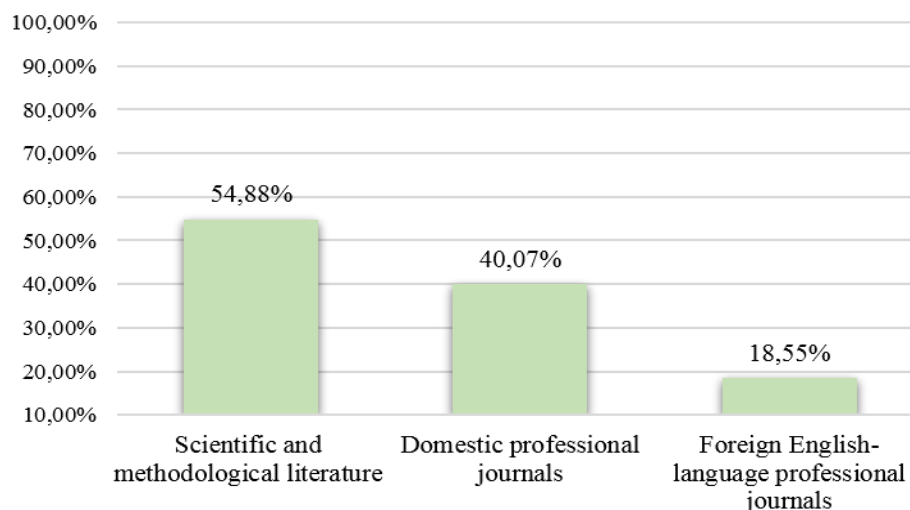
According to the results of the study, in order to obtain a new information and improve practical and theoretical knowledge, 80.19% of the dentists preferred attending scientific and practical events, while 71.48% of respondents used the Internet resources to obtain the necessary information (Figure 1).

Every second dentist (54.88%) among of the surveyed respondents chose reading of the scientific and methodological literature (books and guidelines) as the main source for replenishing new information, 40.07% chose scientific articles in domestic professional journals. An important point of the survey was to determine the level of foreign language proficiency, namely English, in order to obtain a new medical literature. Among the respondents, only 18.55% of dentists used scientific articles in foreign professional journals for independent processing of scientific information (Figure 2).



Slika 1. Korišćenje izvora informacija od strane stomatologa za sticanje novih znanja

Figure 1. Use of information sources by dentists to gain new knowledge



Slika 2. Korišćenje informacionih resursa za unapređenje stomatološke prakse

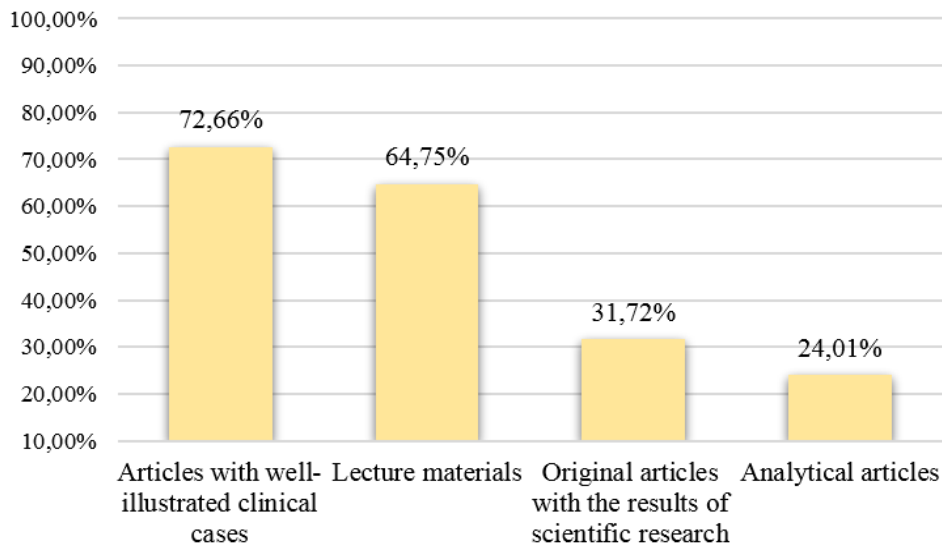
Figure 2. Use of information resources to improve dental practice

Samousmereno učenje prvenstveno podrazumeva veštine doktora za samostalan rad sa naučnom literaturom i njihovu sposobnost sistematizacije i obrade naučnih informacija. Dakle, prema rezultatima ankete, velika većina stomatologa preferirala je članke sa dobro ilustrovanim kliničkim slučajevima (72,66%) i materijale sa predavanja (64,75%) (Slika 3). Samo 31,72% stomatologa iskazalo je interesovanje za originalne članke sa rezultatima naučnih istraživanja, a 24,01% istaklo je interesovanje za analitičke članke, što ukazuje na njihovu veštinu samostalne analize literature i sposobnost obrade naučnih informacija.

Transformacija u obrazovnom sistemu, pogoršana pandemijom virusa COVID-19 i karantinskim ograničenjima, menja pristup lekara izvorima informacija. Rezultati ankete o načinima upoznavanja sa naučnim i praktičnim člancima u stručnim publikacijama pokazali su da 62,20% stomatologa radije čita članke u elektronskom formatu na sajtovima časopisa, 46,10% – zainteresovano je za čitanje članaka, koji su odabrani na relevantne teme stručne škole, 40,53% – dobija nove brojeve časopisa i članaka na e-mail adresi. Samo jedna trećina ispitanika, odnosno 34,45%, čita tekstove u papirnoj formi, objavljene u časopisima. Procenjuje se da 4,25% stomatologa posećuje medicinske biblioteke radi čitanja članaka, a 4,51% uopšte nije u mogućnosti da čita novu literature, zbog preopterećenosti poslom. Od anketiranih stomatologa, njih 1,67% navelo je da ih ne zanimaju članci u domaćim stručnim časopisima (Slika 4).

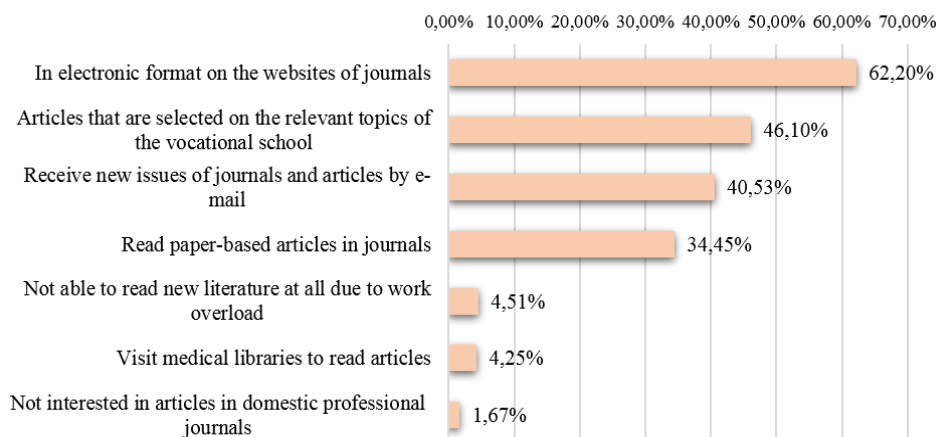
Self-directed learning primarily involves the doctor's skills for independent work with scientific literature and his or her ability to systematize and process scientific information. Therefore, according to the results of the survey, the vast majority of dentists preferred articles with well-illustrated clinical cases (72.66%) and lecture materials (64.75%) (Figure 3). Only 31.72% of dentists expressed their interest in original articles with the results of scientific research and 24.01% noted their interest in analytical articles, which indicates their skills in independent analysis of literature and the ability to process scientific information.

The transformation in the education system, exacerbated by the Covid-19 pandemic and quarantine restrictions, is changing the access of doctors to the information sources. The results of the survey on ways to get acquainted with scientific and practical articles in professional publications showed that 62.20% of dentists preferred to read articles in electronic format on the websites of journals, 46.10% were interested in reading articles that were selected on the relevant topics of the vocational school, 40.53% received new issues of journals and articles by e-mail. Only one third of the respondents, namely 34.45% read paper-based articles in journals. Four point twenty-five percent of dentists visited medical libraries to read articles, and 4.51% were not able to read new literature at all due to work overload. One point sixty-seven percent of the surveyed dentists noted that they were not interested in articles in domestic professional journals (Figure 4).



Slika 3. Vrste članaka koji su stomatolozima najzanimljiviji

Figure 3. Types of articles most interesting for dentists



Slika 4. Analiza načina upoznavanja sa naučnim i praktičnim člancima

Figure 4. Analysis of ways to get acquainted with scientific and practical articles

Prema rezultatima ankete, utvrđena je motivacija stomatologa za samostalno učenje i utvrđeno je njihovo interesovanje za čitanje stručne literature. Rezultati proučavanja učestalosti čitanja domaćih stomatoloških časopisa pokazali su to da 23,83% stomatologa redovno čita članke u domaćim časopisima, 28,32% stomatologa čita članke u domaćim časopisima nekoliko puta mesečno, 22,62% ispitanika koristi internet za pronalaženje potrebnih informacija, a 13,40% koristi informacije sa naučnih i praktičnih događaja. Članke u domaćim časopisima nekoliko puta nedeljno čita njih 8,84%, a 2,99% ispitanika ne čita domaće časopise (Slika 5).

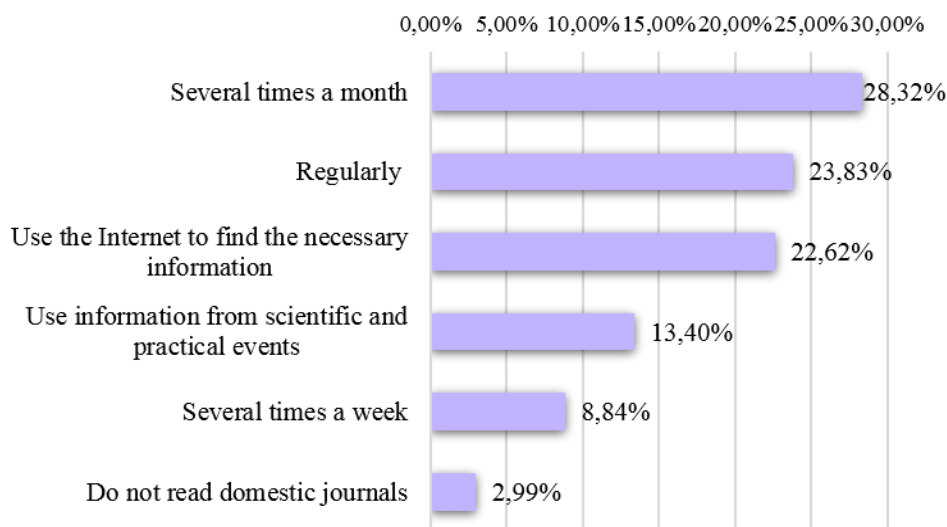
According to the results of the survey, the motivation of dentists for self-directed learning and their interest in reading professional literature were determined. The results of studying the frequency of reading domestic dental journals showed that 23.83% of dentists regularly read articles in domestic journals, 28.32% read articles in domestic journals several times a month. 22.62% of respondents used the Internet to find the necessary information, and 13.40% – used information from scientific and practical events. Eight point eighty-four percent of dentists read articles in domestic journals several times a week, and 2.99% of respondents did not read domestic journals (Figure 5).

Prema pogodnosti dobijanja novih brojeva stručnih časopisa, 53,54% stomatologa preferira elektronske verzije na sajtovima časopisa, kada istraživač može lako da pristupi i preuzme traženi članak, 24,61% ispitanika želelo je da dobija obaveštenja na e-mail adresu o novim brojevima časopisa, a 11,62% stomatologa preferira kupovinu papirnih verzija časopisa na naučnim i praktičnim događajima i izložbama. Samo 10,23% stomatologa preferira godišnju pretplatu na stručne časopise sa mogućnošću nabavke u pošti (Slika 6).

Među tri lidera domaćih stomatoloških časopisa su: časopis DentArt, koji preferira 45,68% ispitanih stomatologa, časopis Modern Dentistry, koji čita 43,49% ispitanika, i časopis Dentistry News, koji je izabralo 26,00% ispitanika (Slika 7).

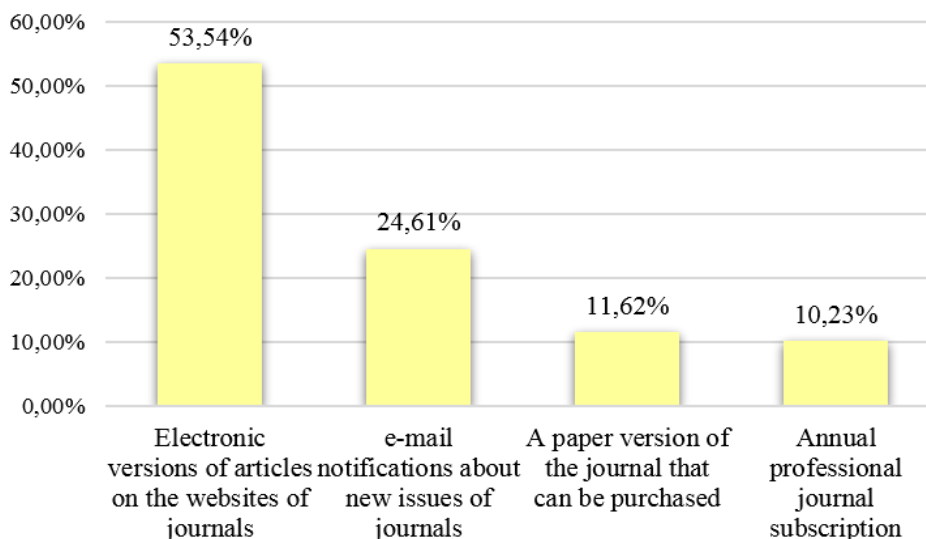
Based on the convenience of obtaining new issues of professional journals, 53.54% of dentists preferred electronic versions on the websites of journals, when the search engine could easily access and download the required article, 24.61% of respondents wished to receive e-mail notifications about new issues of journals, and 11.62% showed the readiness to purchase paper versions of journals at scientific and practical events and exhibitions. Only 10.23% of dentists preferred an annual professional journals subscription with the possibility of obtaining them at the post office (Figure 6).

Among the three leaders of domestic dental journals were DentArt Journal, which was preferred by 45.68% of the surveyed dentists, Modern Dentistry Journal, which was read by 43.49%, and Dentistry News Journal, which was chosen by 26.00% of respondents (Figure 7).



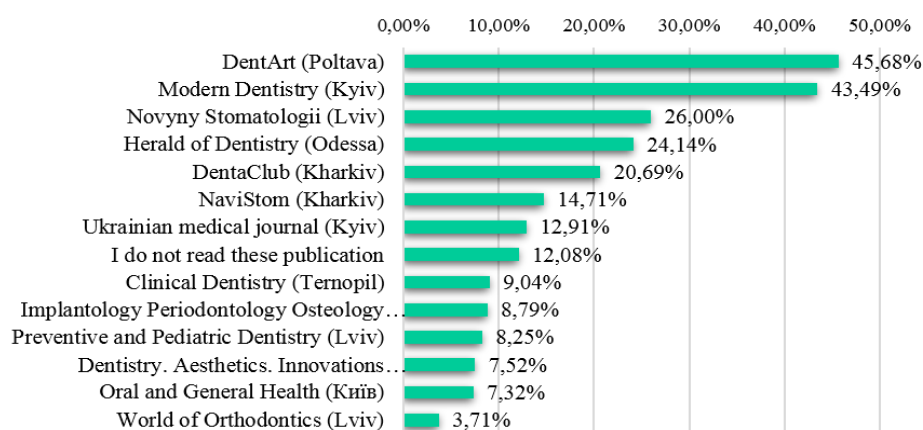
Slika 5. Utvrđivanje učestalosti čitanja naučnih i praktičnih članaka u domaćim stomatološkim časopisima

Figure 5. Determining the frequency of reading scientific and practical articles in domestic dental journals



Slika 6. Načini dobijanja novih brojeva stručnih časopisa

Figure 6. Methods of obtaining new issues of professional journals



Slika 7. Redovnost čitanja domaćih stručnih publikacija

Figure 7. Regularity of reading domestic professional publications

Diskusija

Garisonov sveobuhvatni model samo-usmerenog učenja, koji se zasniva na motivaciji, ima svoje jasno mapiranje i sistematiku u modelu učenja „po iskustvu“. Po prvi put, ovaj model samousmerenog učenja opravdao je Amerikanac D. Kolb, zasnovan na razvoju D. Djujija, K. Levina i J. Pijažea¹⁴.

Koristeći sopstveno iskustvo, stomatolozi svoj rad usmeravaju ka produblivanju kliničkog razmišljanja, usavršavanju praktičnih vještina i pronalaženju individualnog pristupa pacijentu, kako bi u procesu samoobrazovanja identifikovali personalizovane karakteristike pacijenata i njihove reakcije u ponašanju.

Discussion

Garrison's comprehensive self-directed learning model, which is based on "motivation", has its own clear mapping and systematics in the model of learning "by experience". For the first time this self-directed learning model was justified by the American D. Kolb, based on the developments of D. Dewey, K. Levin and J. Piaget¹⁴.

Using their own experience, dentists direct their work towards deepening clinical thinking, improving practical skills and finding an individual approach to the patient, in order to identify personalized features and their behavioral reactions in the process of self-education.

Glavni zadatak u ovoj fazi je ispravna motivacija i doktora i pacijenta. Pri tome, posebna pažnja projektuje se ne samo na praktičnu mobilnost lekara, već i na produblјivanje njegove svesti, unapređenje kliničkog i kreativnog mišljenja. U suprotnom, proces samoobrazovne obuke neće biti potpun, ako se ne unapređuju i ne uzimaju u obzir primarne profesionalne veštine i kvalitete lekara¹⁵.

Na osnovu analize ovog modela, proces samousmerenog učenja lekara može biti cikličan i predstavlјen je kroz četiri komponente, koje se uspešno zamenjuju: konkretno iskustvo, refleksivno posmatranje, apstraktna konceptualizacija i aktivno eksperimentisanje.

U fazi konkretnog iskustva, savetuju se introspekcija i objektivna procena postojećih specifičnih znanja i veština stomatologa, koja će u budućnosti postati predmet optimizacije i diskusije u procesu „samoobrazovanja“.

Ubuduće, stečeno iskustvo dopunjuje se sveobuhvatnom analizom u toku kolektivnog i individualnog rada – produblјivanjem razmišljanja i usavršavanjem praktičnih veština (primenom različitih oblika: slušanjem predavanja, učešćem na naučnim i praktičnim događajima, redovnim čitanjem naučnih i praktičnih sadržaja, čitanjem članaka objavlјenih u stručnim publikacijama i materijala dostupnog na internetu)¹⁶.

Osnova za ovo je prelazak na fazu refleksivnog posmatranja, koja omogućava stomatolozima da analiziraju iskustvo stečeno kroz „samousmereno učenje“ i izvuku niz zaključaka u vezi sa nivoom kliničkog razmišljanja i sopstvenim veštinama u određenom delu stomatologije. Prolaz kroz ovu fazu pruža mogućnost da se stomatolozi podstaknu da traže samostalne odgovore na postavljena klinička pitanja i načine praktičnog poboljšanja. Bez takve analize, stečeno praktično iskustvo može ostati nesavršeno.

U fazi apstraktne konceptualizacije vrši se poređenje sopstvenih zaključaka sa zahtevima koje diktira nivo savremene stomatologije u Ukrajini i svetu. Njihovi prethodni zaključci dalje se razvijaju i formiraju jezikom hipoteza i mogućih sopstvenih rezultata, a zatim se testiraju u sledećoj fazi – fazi aktivnog eksperimentisanja. Ova faza pruža proveru praktičnih veština, uzimajući u obzir iskustvo stečeno kroz „samousmereno učenje“ i informacije dobijene u prethodnim fazama. Predložena faza „samoobrazovanja“ lekara u procesu kontinuiranog stručnog usavršavanja stomatologa, omogućava da se fokus aktivnosti i inicijative u obrazovnom procesu pomeri ka motivaciji samog lekara.

The main task at this stage is the correct motivation of both the doctor and the patient. At the same time, special attention is projected not only on the practical mobility of the doctor, but also on the deepening of consciousness, the improvement of clinical and creative thinking. Otherwise, the process of self-education training will not be complete if it does not improve and does not take into account the primary professional skills and qualities of a doctor¹⁵.

Based on the analysis of this model, the process of self-directed learning of doctors can be cyclical and is represented by four components that successively replace each other: concrete experience, reflective observation, abstract conceptualization and active experimentation.

At the stage of concrete experience, it is advisable to introspect and objectively assess the existing specific knowledge and skills of the dentist, which in the future will become the subject of optimization and discussion in the process of "self-education".

In the future, the acquired experience is supplemented with a comprehensive analysis in the course of collective and individual work – deepening thinking and improving practical skills (by applying various forms: listening to lectures, participating in scientific and practical events, regularly reading scientific and practical articles in professional publications, materials of Internet resources)¹⁶.

The basis for this is the transition to the reflective observation phase, which allows dentists to analyze the experience gained through "self-directed learning" and draw up a number of conclusions regarding the level of clinical thinking and their own skills in a particular section of dentistry. The passage of this phase provides an opportunity to prompt dentists to search for independent answers to the posed clinical questions and ways of practical improvement. Without such an analysis, the acquired practical experience may remain imperfect.

At the stage of abstract conceptualization there is a comparison of own conclusions with the requirements dictated by the level of current dentistry in Ukraine and the world. Their previous conclusions are further developed and formed in the language of hypotheses and possible own results, and then tested in the next phase – the phase of active experimentation. This phase provides a test of practical skills, taking into account the experience gained through "self-directed learning" and information obtained in previous stages.

To, pak, zahteva promenu strategije postdiplomskog obrazovanja lekara, traženje novih oblika obrazovanja i tehnologija usmerenih u praktičnom smeru. Istovremeno, u prvi plan dolazi pitanje unapređenja kvaliteta samoobrazovanja stomatologa, kroz lično orijentisani model kontinuiranog profesionalnog razvoja¹⁷.

Kombinacija ovih modela, u određenoj meri, odražava zahteve kontinuiranog stručnog usavršavanja zdravstvenih radnika, kao kontinuiranog procesa učenja i usavršavanja stručnih kompetencija specijalista, nakon sticanja visokog obrazovanja u oblasti zdravstvene zaštite i postdiplomskog pripravnčkog staža, što omogućava specijalistima da ili unaprede standarde profesionalne delatnosti u skladu sa potrebama zdravstvenog sektora tokom čitavog perioda profesionalne delatnosti. Uključuje učešće u procesu formalnog, neformalnog i informalnog obrazovanja u oblasti zdravstvene zaštite^{10,18}.

Zaključak

Analiza dobijenih rezultata pokazuje to da su glavni načini dobijanja naučnih i praktičnih informacija za stomatologe, u procesu samousmerenog učenja, aktivno uključivanje materijala dobijenih na predavanjima, naučnim i praktičnim događajima, informacije dobijene putem interneta, iz naučne i metodičke literature, iz naučnih članaka domaćih i stranih stručnih časopisa, prevashodno na engleskom jeziku. Ova odredba stvara osnovu za unapređenje rezultata svakodnevne prakse. Pravovremeno i sveobuhvatno informisanje stomatologa i proširenje njihovog znanja utiče na dalji razvoj i postizanje visokoefikasnih rezultata lečenja. Važni aspekti procesa samousmerenog učenja lekara su njihova sposobnost rada sa naučnom literaturom i veštine sistematizacije i obrade medicinskih informacija.

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The proposed phase of "self-education" of doctors in the process of continuous professional development of dentists, allows shifting the focus of activity and initiative in the educational process towards the motivation of the doctor himself. This, in turn, requires a change in the strategy of the postgraduate education of doctors, the search for new forms of education, and technologies in the practical direction. At the same time, the issue of improving the quality of self-education of dentists comes to the fore, through a personality-oriented model of continuous professional development¹⁷.

The combination of these models, to a certain extent, reflects the requirements of continuous professional development of healthcare professionals – as a continuous process of learning and improving the professional competencies of specialists after they receive higher education in the field of healthcare and postgraduate education in internship. Further, this allows a specialist to improve the standards of professional activity in accordance with the needs of the healthcare sector during the entire period of professional activity. It includes participation in the process of formal, non-formal, and informal education in the field of healthcare^{10,18}.

Conclusion

According to the analytical results, it is shown that the main ways of obtaining scientific and practical information for dentists in the process of self-directed learning is the active involvement of the materials gained on the lectures, scientific and practical events, from Internet resources, from scientific and methodological literature, from scientific articles of domestic and foreign English-language professional journals. This provision creates the basis for improving the results of daily practice. Timely and comprehensive informing of dentists and the expansion of their knowledge affects the further development and achievement of highly effective treatment results. An important aspect of the process of self-directed learning of doctors is their ability to work with scientific literature and the skills of systematizing and processing of medical information.

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LITERATURA /REFERENCES

1. Hasiuk NV, Antonyshyn IV, Pohoretska KV, Levandovsky RA. Improving the quality of the dental education of future specialists by implementation in the traditional system of a person-oriented training model of teaching. *Intermedical J* 2018; 2(12): 4-8.
2. Hasiuk N, Bozhyk S, Radchuk V. Modern view on mechanisms of epithelium differentiation of the oral mucosa in normal and pathological processes. *Acta Stomatol Naissi* 2021; 37(84): 2314-2324.
3. Burić NN, Stojanović SM. Occupational hazard for dental staff exposed to the SARS-COV-2 virus during dental procedures. *Acta Stomatol Naissi* 2020; 36(81): 2051-2062.
4. Hasiuk N, Mazur I, Popovych I, Radchuk V. Clinical characteristics of diseases of the oral mucosa in patients who have undergone COVID-19 – what does a dentist need to know in a pandemic? *Georgian Medical News* 2021; (319): 93-99.
5. Messano GA, Masood M, Palermo P, Petti S. Prevalence of reactive tuberculin skin test in dental healthcare workers and students. *Acta Stomatol Naissi* 2013; 29(67): 1242-1248.
6. Petti S. Advances in infection epidemiology and control in dental healthcare settings. *Acta Stomatol Naissi* 2013; 29(67): 1224-1229.
7. Shaabi FI, Al-Makramani BMA, Al-Sanabani FA et al. The potential factors affecting the perception of aesthetic smile among adult patients attending dental clinics of Jazan University. *Acta Stomatol Naissi* 2020; 36(81): 2022-2035.
8. Hasiuk P, Vorobets A, Hasiuk N et al. Sex differences of odontometrical indexes crowns of molars. *Interventional Med Applied Sci* 2017; 9(3): 160-163.
9. Andrukha VS, Slobodyan MV. Continuing professional development of health professionals: changes in priorities. *Pediatrician* 2018; 3-4: 60-61 (in Ukrainian).
10. Resolution of the Cabinet of Ministers of Ukraine of March 28, 2018 № 302 «On approval of the Regulations on the system of continuous professional development of health professionals» (in Ukrainian).
11. National Strategy for the Development of Education in Ukraine for 2012-2021 (Electronic resource). Kyiv; 2012. Access mode: <http://www.nmu.edu.ua/legis2.php> (in Ukrainian).
12. Garrison DR. Self-directed learning: toward a comprehensive model. *Adult Educ Q* 1997; 48: 18-33.
13. Hasiuk NV, Kostenko EYa, Klitinska OV. Methodological approaches to improving the level of practical skills as an integral part of the education of dentists. *Ukraine. Nation's Health* 2018; 4/1(53): 73-76 (in Ukrainian).
14. Marushko RV, Marushko KR. Analysis of the international experience of accreditation of continuous professional development of medical workers. *Modern Pediatrics* 2018; 1(89): 20-28 (in Russian).
15. Hasiuk NV, Klitynska OV, Antonyshyn IV, Mochalov YuA. Ways of formation and extending of clinical and analytical thought of students-dentists under the activities of student scientific society. *Ukraine. Nation's Health* 2018; 4/1(53): 112-115.
16. Khvisyuk OM, Marchenko VT, Zhrebkin VV. Quality management system of medical education according to international standards at the postgraduate stage. *Problems of modern medical science and education*. 2009; 1: 5-6 (in Ukrainian).
17. Ustinov OV. Continuing education of physicians: Government Resolution published. Morion Publishing House. <https://www.umj.com.ua/article/124434/bezperervne-navchannya-medikiv-opublikovano-postanovuryadu> (in Ukrainian).
18. Hasiuk NV, Eroshenko GA, Lisachenko OD. Personality-oriented ways to optimize the training of medical personnel. Proceedings of the scientific-practical conference with international participation «Organization and management of health care». Kyiv; 2016. 28-29 (in Ukrainian).