



MEDICAL UNIVERSITY – VARNA
PROF. DR. PARASKEV STOYNOV

FACULTY OF FARMACY

Dr. BRANIMIR IVANOV BRANKOV

ABSTRACT
of DOCTORAL THESIS

**EUROPEAN PRACTICES AND STANDARDS OF
DIGITAL FORMS OF CONTINUING EDUCATION
FOR MEDICAL PROFESSIONALS IN THE FIELD
OF MEDICINES POLICY**

**for Doctorate of Medicine and Philosophy MD-PhD degree
in scientific specialty 7.3 – PHARMACY**

Thesis Supervisors:

Prof. Marieta Georgieva, MD

Ass. Prof. Dr. Albena Zlatareva, MD

Varna, 2021

The doctoral thesis is 147 pages long with additional 24 pages of Appendices – questionnaires in Bulgarian and English. It contains 16 tables and 13 figures. The bibliography comprises 194 sources.

The defense materials are available in the library of the Medical University – Varna and are published on the website of the Medical University – Varna.

The doctoral thesis has been discussed at the meeting of the Department of Pharmacology, toxicology and pharmacotherapy to the Faculty of Pharmacy at the Medical University – Varna and a date has been set for its defense.

Examiners

External examiners:

1. Pfor. Ilko Getov – external examiner for MU – Varna, Faculty of Pharmacy, Medical University - Sofia
2. Prof. Asena Serbezova – external examiner for MU - Varna, Chairperson of the Bulgarian Pharmaceutical Union
3. Dr. Milka Vlaskovska, corresponding member of the Academy of Sciences – external examiner of MU – Varna, Department of Pharmacology, Faculty of Medicine, Medical University – Sofia

Internal examiners:

1. Prof. Dr. Petko Marinov – internal examiner, Faculty of Pharmacy, Medical University – Varna;
2. Ass. Prof. Pharmacist Kaloyan Georgiev, doctor of pharmaceutical sciences – internal examiner, Department of Pharmacology, Toxicology and Pharmacotherapy, Faculty of Pharmacy, Medical University – Varna

Reserve examiners:

1. Prof. Dr. Krasimir Gigov – internal examiner MU – Varna, Director General of the Bulgarian Red Cross
2. Ass. Prof. Pharmacist Evgeni Evgeniev Grigorov, MD – internal examiner, Department of Organization and Economy of Pharmacy, Faculty of Pharmacy, Medical University – Varna

The public defence of the doctoral thesis will take place on 25 February 2021 virtually on the Blackboard platform of the Medical University – Varna.

CONTENTS

MOST FREQUENT ABBRIVIATIONS.....	4
I. INTRODUCTION	5
III. OBJECTIVE AND PURPOSES	8
III.1. Objective	8
III.2. Purposes	8
IV. MATERIALS AND METHODS.....	9
IV.1. Design of the Study.....	9
IV.2. Respondents.....	9
IV.3. Methods	10
V. OUTCOME	12
V.1. Descriptive analysis	12
V.2. Correlational Analysis.....	28
V.3. Regressive analysis	32
VI. DISCUSSION	33
CONCLUSIONS	37
CONTRIBUTION.....	38
PUBLICATIONS IN RELATION TO THE DOCTORAL THESIS	40

MOST FREQUENT ABBRIVIATIONS

BPhU – Bulgarian Pharmaceutical Union

EC – European Commission

EU – European Union

MH – Ministry of Health

NHIF – National Health Insurance Fund

CQAF – Common Quality Assurance Framework

VET – Vocational Education and Training

CME – continuing medical education

I. INTRODUCTION

Continuing education as an element of life-long learning is ever more important in the modern globalized world where it is very easy to access information and there is ever more widespread use of continuous updating and the digital forms which are introduced in higher education for learning and improvement.

There is a dramatic change and increase in the opportunities and objectives of the education of medical graduates following the creation of the most advanced digital platforms streaming in real time the most up-to-date and comprehensive medical information on any branch of medical science.

Defining clear educational standards and sources effectively used in the day-to-day medical practice are some of the highest priorities and major challenges facing all the institutions regulating this dynamic area and medical professionals themselves.

The rapidly increasing requirements for the quality and safety of medical services make it necessary for the medical professionals to continuously improve their knowledge not only of their speciality of medical science but also of a number of other fields of medicine, including drug policy.

It is necessary to motivate and stimulate motivation for upgrading continuous education as early as the stage of university preparation of medical professionals. This requires in-depth research into the factors stimulating the life-long learning process.

A number of medical universities in Bulgaria and worldwide work on developing digital education platforms for graduate medical professionals to ensure the conditions for their better career development and higher qualification.

A lot of Bulgarian and foreign researchers of medical education study this field, e.g. conduct sociological surveys among graduate doctors of medicine, doctors of dental medicine and/ or healthcare professionals [Dyulgerova St. and coll., 2009] in order to identify the obstacles for the people trained and the difficulties they face with continuing education and the incentives that motive them, to identify the areas of medicine requiring further upgraded education and the opportunities to carry out various projects of life-long learning.

The findings of a great number of studies on the problems of post-graduate and continuing education of medical professions suggest that graduate doctors are well aware of the numerous opportunities offered by continuing education, the need for updating the knowledge and skills throughout the whole life to be able to have a successful career. The forms of education are also constantly evolving and this helps tackle some of the problems facing doctors of medicine, doctors of dental medicine, pharmacists and healthcare professionals in the past such as the impossibility to be absent from work for longer periods, no free time for self-preparation in case of full-time education, etc.

What has been discussed so far gave us the idea to carry out a study of the existing specialized programs and the need to develop new specialized programs for medical professions concerning the management and implementation of national and international strategies and policies in the field of drug policy, of the implementation of legislation, strategies, programs and policies at national and international level.

Drug policy is an important part of the general healthcare policy of a country. It comprises a set of regulatory standards, measures and the ensuing actions which include three separate areas with often conflicting interests: *the nation's health; the healthcare system of a country, EU Member country; the pharmaceutical industry including pharmaceutical companies*. The implementation of the medicines policy in a country and in the EU as a whole is conditional on policy factors which determine the regulation of the pharmaceutical sector at these levels [A. Zlatareva, 2020]. The state medicines policy should meet various even conflicting purposes: 1) responsibility to the users of healthcare services – the provision of quality and safe medicinal products; 2) drawing up a balanced healthcare budget enabling also good cost control of treatment and medicinal products; 3) reimbursement and regulation of the pharmaceutical sector also leading to favorable effects on the pharmaceutical industry but taking into account the specific economic characteristics of the country [A. Zlatareva, 2020]. The focal point of the complex relations in the drug policy is the protection of the rights and interests of the key figure in the healthcare system – the patient.

This study aims at establishing how and to what extent medical professionals in Bulgaria and the Balkan region upgrade their education in this field which is crucial to the healthcare policy of a country. How medical education is updated focusing on new digital forms of education through the development, improvement and adaptation of specialized education programs for graduate medical professionals to keep abreast of the rapidly changing environment in the drug policy and regulation, e.g. the analysis of the impact of legislation, national and international standards, advisory mechanisms, etc. depending on the outcome of the analysis of the needs for education.

The subject matter has turned out to be particularly topical right now when the problems and restrictions resulting from the COVID-19 pandemic caused the rapid restructuring of a number of areas of public and political life worldwide to ensure the most efficient function of the healthcare systems possible and to protect the health and save the life of people through distancing – the only possible prevention measure until more massive vaccination is possible or until the discovery of a specific targeted treatment for this new and unknown infectious disease. The lockdown everywhere and the strict quarantine in a number of European countries made us acutely aware of education without physical presence and remote work (out of the office, from home). We moved to remote learning for students at schools and universities during the total lockdown in a number of European countries and in this country. All this unequivocally made clear the need for adapting education systems and their rapid restructuring to move to remote forms of learning and education.

The creation of specialized online education programs and other professional qualification activities for employees will undoubtedly facilitate the acquisition of better qualifications for these professionals and will improve the quality of healthcare services for the population.

III. OBJECTIVE AND PURPOSES

III.1. Objective

The objective of the research study we conducted is to establish to what extent medical professionals are willing, aim at, and have an opportunity to upgrade their basic knowledge and the skills acquired in their practice? Do they often need help from colleagues as to the issues of drug policy? Do they attend some forms of continuing education, and whether such education is organized at the places where they work?

In the course of the research we have tried to specify what type of web-based forms of education for upgrading skills medical professionals from Bulgaria, Slovenia and Croatia know – forms which they consider as up-to-date and adapted to their needs for specialized education programs ensuring that their knowledge will be in line with the constantly and rapidly changing environment in the field of drug policy and regulation; and to what extent these they know and use these programs for life-long learning and for improving their qualifications; and to what extent they trust such programs?

III.2. Purposes

1. To find out the point of view of the medical professionals from the Balkan region (professionals from Croatia and Slovenia were surveyed) and from Bulgaria as to their need for upgrading skills in the field of drug policy to ensure better career development and qualifications.

2. To find out to what extent the medical professionals from Bulgaria and the respondents from Croatia and Slovenia have access to and are aware of the available specialized online programs for continuing education in relation to their professional qualification.

3. To study the need for certifying the newly acquired knowledge in the opinion of the respondents.

IV. MATERIALS AND METHODS

IV.1. Design of the Study

A survey was conducted in period between **December 2019 – May 2020** among respondents – medical professionals from this country and from the Balkan region (Croatia and Slovenia) as to the need for acquiring more up-to-date and more comprehensive knowledge in the field of medicines policy and their willingness to upgrade their knowledge by taking part in digital forms of education.

IV.2. Respondents

3 groups of medical professionals from Slovenia and Croatia and from Bulgaria took part in the survey. The initial idea of the study was frustrated as a result of the pandemic situation and that is why we have selected a representative sample of respondents. The respondents took part in the survey on a voluntary basis and the technique of snowballing was used for distributing the survey cards and selecting volunteers. The percentage share of participants from the three countries is shown on fig. 1.

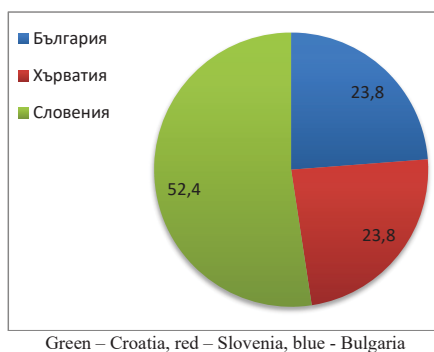
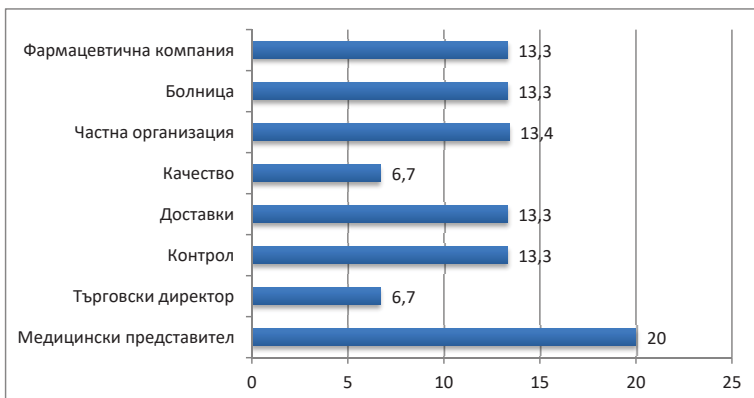


Fig. 1. Relative share of participants in the survey in terms of countries

In total 21 people were surveyed and sample includes participants of different professions and place of work (fig. 2).



1) pharmaceutical company; 2) hospital; 3) private organization; 4) quality; 5) supply; 6) control; 7) commercial director; 8) medical representative.

Fig. 2. Distribution of participants in terms of place of work

IV.3. Methods

1. Survey method

Survey cards were prepared for the purposes of this research, they included open and closed questions in order to gather information on the surveyed issue so that we can find out to what extent they were aware of the available systems of continuing digital education in the field of drug policy and their opinion on the need for upgrading education on the subject matter (*Appendix 1 and Appendix 2*). The survey found the opinion of a representative sample of medical professionals concerning:

- Their opinion on the need for further, upgrading education in the field of drug policy;
- To what extent the medical professionals in this country and in the Balkan region have access to and are aware of the available specialized online programs for continuing education in relation to their professional qualifications.

2. Statistical methods

- Descriptive analysis of the basis characteristics of the sample and the indicators included in the survey.
- Correlational analysis for studying the correlations and their impact.
- Regressive analysis

V. OUTCOME

V.1. Descriptive analysis

Most of the people surveyed consider their knowledge in the field of drug policy as good (42.9%) (fig. 3), it is interesting that more Croatians (14.3%) than Slovenians (4.8%) and Bulgarians (0%) (table 1) find that their work is very good. Most Bulgarians and Slovenians think that their knowledge is good (19%), while 19% of Croatians have no opinion and can't tell. These differences are statistically relevant following a verification with the Chi-square analysis ($X^2 = 12.57$, $p = 0.05$).

On the question of how often they face situations in which issues of drug policy are involved, the people who answered that they faced such situations at least once (28.6%) have the largest relative share. On the difficulties faced in their everyday activity concerning issues of drug policy, the data show that Bulgarians faced most difficulties (14.3%) compared to Slovenians (9.5%) and Croatians (4.8%), however these differences are not statistically relevant (table 2).

Table 1. Assessment of the up-to-datedness of knowledge

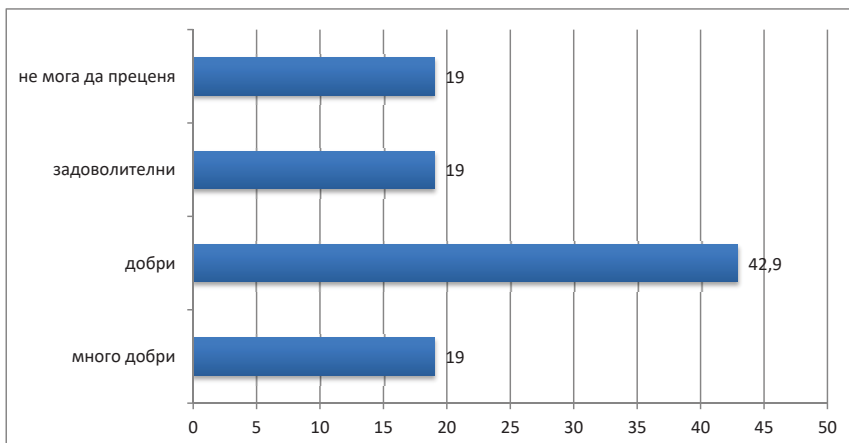
How do you assess the up-to-datedness of your knowledge in the field of drug policy?					
$X^2 = 12.57$, $p = 0.05$		Country			Total
		Bulgaria	Slovenia	Croatia	
Very good	number	0	1	3	4
	%	0.0%	4.8%	14.3%	19.0%
Good	number	4	4	1	9
	%	19.0%	19.0%	4.8%	42.9%
Satisfactory	number	1	0	3	4
	%	4.8%	0.0%	14.3%	19.0%
No opinion, can't tell	number	0	0	4	4
	%	0.0%	0.0%	19.0%	19.0%
Total	number	5	5	11	21
	%	23.8%	23.8%	52.4%	100.0%

Table 2. How often you face situations in which issues of drug policy are involved?

How often in your everyday work do you face situations in which issues of drug policy are involved?					
$\chi^2 = 17.32, p = 0.68$		Country			Total
		Bulgaria	Slovenia	Croatia	
At least once a day	number	3	2	1	6
	%	14.3%	9.5%	4.8%	28.6%
3 times per week or less often	number	0	0	1	1
	%	0.0%	0.0%	4.8%	4.8%
1-2 per month or less often	number	1	0	4	5
	%	4.8%	0.0%	19.0%	23.8%
Once per 6 months	number	1	3	0	4
	%	4.8%	14.3%	0.0%	19.0%
Less than once per year	number	0	0	4	4
	%	0.0%	0.0%	19.0%	19.0%
I can't tell	number	0	0	1	1
	%	0.0%	0.0%	4.8%	4.8%
Total	number	5	5	11	21
	%	23.8%	23.8%	52.4%	100.0%

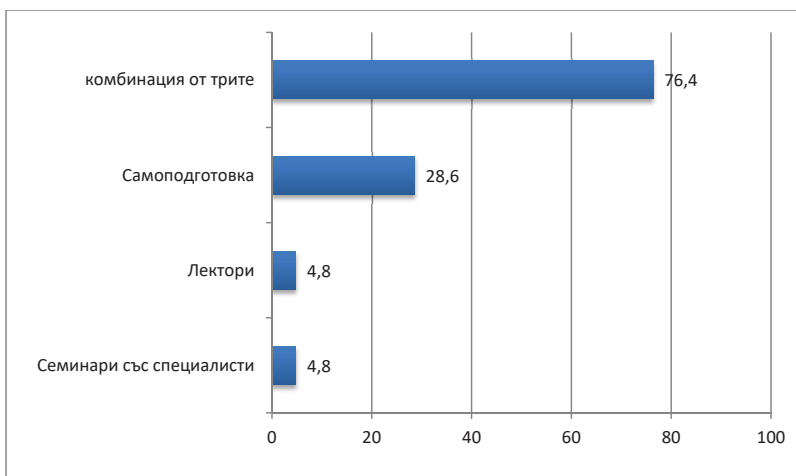
The data show that the participants in the survey most often update their knowledge through seminars with various experts or attending lectures of experts (28.6%), self-preparation (28.6%) or a combination of the three answers (76.4%) (fig. 3). The analysis of chi-square shows considerable differences among the participants ($\chi^2 = 26.72, p = 0.008$). For example, while Bulgarians rely on seminar preparation and expert knowledge from guest lecturers, Croatians prefer self-preparation. Slovenians update their knowledge in different ways with the largest relative share (23.8%) relying on a combination of the specified options (table 3, fig. 4).

In general, the surveyed state that the staff policy at their places of work requires the employees to be familiar with the latest trends (47.6%) and to invite external lecturers-experts to improve their qualifications (4.8%) (table 4).



1) I can't tell; 2) satisfactory; 3) good; 4) very good

Fig. 3. Assessment of the up-to-datedness of knowledge in the field of drug policy



1) A combination of all three; 2) Self-preparation; 3) Lecturers; 4) Seminars with experts

Fig. 4. How knowledge in the field of drug policy is updated

Table 3. Way to update knowledge in the field of drug policy

How do you update your knowledge of issues in the field of drug policy at your institutions?					
($X^2 = 26.72$, $p = 0.008$).		Country			Total
		Bulgaria	Slovenia	Croatia	
Organization of seminars with experts from our industry	number	0	0	1	1
	%	0.0%	0.0%	4.8%	4.8%
Inviting lecturers-experts, external to our industry, at least once a year	number	1	0	0	1
	%	4.8%	0.0%	0.0%	4.8%
Self-preparation	number	0	0	6	6
	%	0.0%	0.0%	28.6%	28.6%
Other	number	0	0	2	2
	%	0.0%	0.0%	9.5%	9.5%
Seminars and lecturers-experts	number	4	1	1	6
	%	19.0%	4.8%	4.8%	28.6%
Seminars and self-preparation	number	0	1	0	1
	%	0.0%	4.8%	0.0%	4.8%
Seminars, lecturers-experts, self-preparation	number	0	3	1	4
	%	0.0%	14.3%	4.8%	19.0%
Total	number	5	5	11	21
	%	23.8%	23.8%	52.4%	100.0%

Table 4. Staff Policy

How do you assess the staff policy at your institution in relation to upgrading education, improvement of qualifications of employees in the field of drug policy?		Number	%
Civil servants to be familiar with the latest trends in the field, provide courses to improve the qualification		10	47.6
Invite external lecturers-experts and organize courses at the place of work		1	4.8
Other		6	28.6
A combination of the above 2		4	19.0
Total		21	100.0

The results have also shown a significant statistical difference among the countries in terms of the offer of post-graduate education at the institution where the surveyed people work ($\chi^2 = 18.07$, $p = 0.021$). While Bulgarians and Slovenians attend such a course at least once a year (19%), most Croatians state that no such courses are offered (14.3%) or that they have no information about such courses (23.8%) (table 5).

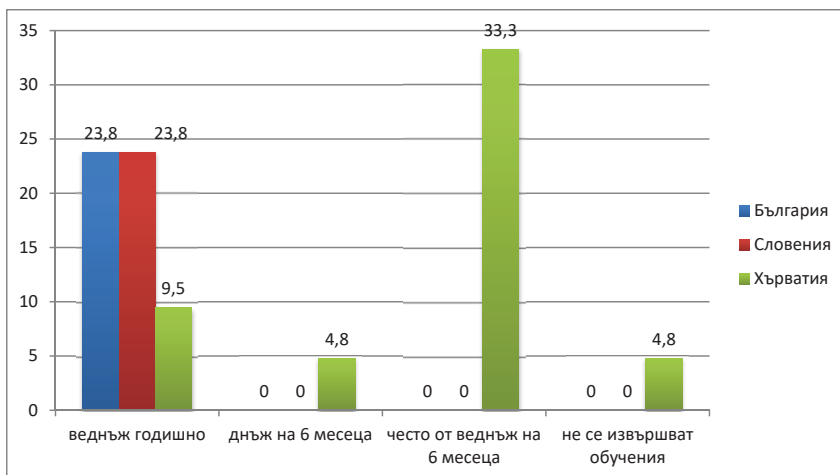
Table 5. Frequency of post-graduate training courses

How often does your institution offer post-graduate training courses?					
($\chi^2 = 18.07$, $p = 0.021$)		Country			Total
		Bulgaria	Slovenia	Croatia	
Once every 6 months	number	0	1	2	3
	%	0.0%	4.8%	9.5%	14.3%
Once a year	number	4	4	0	8
	%	19.0%	19.0%	0.0%	38.1%
Once every 2 years	number	1	0	1	2
	%	4.8%	0.0%	4.8%	9.5%
Not offered	number	0	0	3	3
	%	0.0%	0.0%	14.3%	14.3%
I have no idea	number	0	0	5	5
	%	0.0%	0.0%	23.8%	23.8%
Total	number	5	5	11	21
	%	23.8%	23.8%	52.4%	100.0%

The surveyed persons gave similar replies as to the trainings in physical presence related to issues of drug policy (fig. 5).

Most of the people surveyed (63.2%) consider that the applicants should meet specific requirements to participate in post-graduate continuing education (fig. 6) and participants are selected on the basis of their competences, education or specialty (15%). Others 20% of the surveyed persons believe that experience and competences are the main criteria for the selection of participant in continuing education on the issues of drug policy. Interestingly, the surveyed Croatians think that no selection is necessary and anyone can apply (20%) and that there are other (different from the specified replies) selection criteria (15%), while the surveyed Bulgarians (15%) and

Slovenians (20%) consider that the combination of experience, education and competences is the main selection criteria.



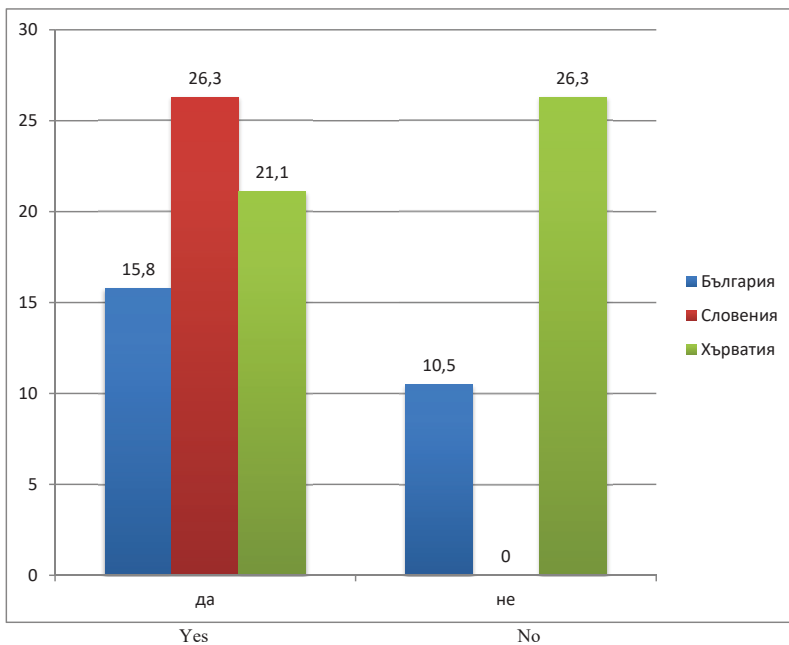
1) once a year; 2) once every 6 months; 3) more than once every 6 months; 4) no education
Green – Croatia, red – Slovenia, blue - Bulgaria

Fig. 5. Frequency of trainings on issues of drug policy

It is mainly doctors, pharmacists, economist, experts in public health, etc. that work in the institutions taking part in the survey. The distribution in percentage terms on average for the three countries is shown in table 6.

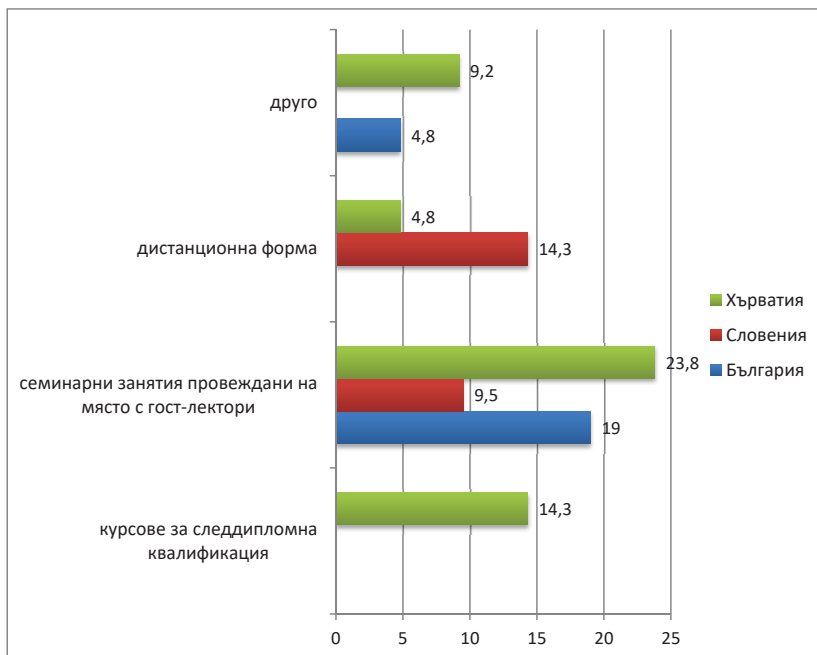
Table 6. Professionals employed

	Bulgaria	Slovenia	Croatia
Doctors	3,9% ±1,8	10%±1	55%±15
Pharmacists	26%±12	20%±10	5%±4
Economists	17%±4,2	20±10	10%±5
Others	39%±4	60±10	53%±20



Green – Croatia, red – Slovenia, blue - Bulgaria
Fig. 6. Selection of participants for continuing education

The descriptive analysis found that the people surveyed from the three countries have similar interests (no statistical difference was found $\chi^2 = 14.63$, $p = 0.145$) in terms of the forms of upgrading education (fig. 7). The main preferences go for seminars organized on-site with guest lecturers (Bulgaria, Slovenia and Croatia), followed by preferences for post-graduate qualification courses (Croatia) and remote forms of education (Slovenia) (fig. 7).



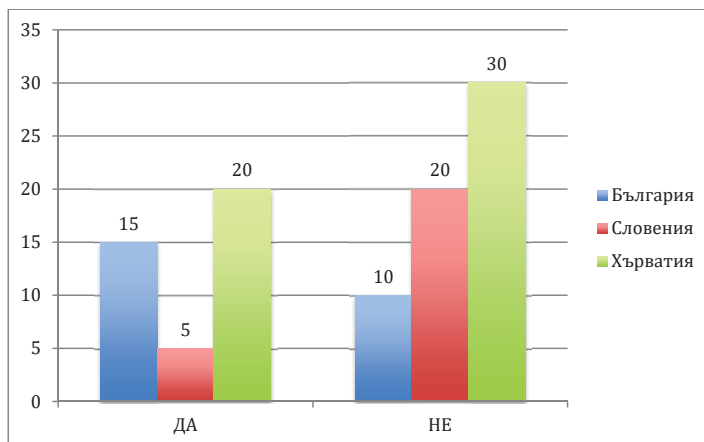
1) Other; 2) Remote form; 3) seminars with a guest lecturer; 4) post-graduate qualification courses

Green – Croatia, red – Slovenia, blue - Bulgaria

Fig. 7. Preferences of the surveyed people as to the forms of upgrading education(%)

The descriptive analysis has also shown that the people surveyed from the three countries have the same opinions on the fact that the lecturers in the upgrading forms of education do not need necessarily to hold an academic title of “doctor of sciences” (60%). The remaining 40% think that this is necessary with the largest relative share of the surveyed people from Bulgaria and Croatia supporting the idea for lecturers holding academic titles (fig. 8). This is probably the result of the fact that merely around 10 % of the people employed hold the academic title of *doctor* or another academic title (*university assistant, associate professor, professor*) at their place of work (tables 7 and 8).

In addition, there is no requirement – in all three countries where the surveyed people work – for the institutions in the field of drug policy to employ members of the academia (76.2%) (fig. 9).



Yes No

Green – Croatia, red – Slovenia, blue - Bulgaria

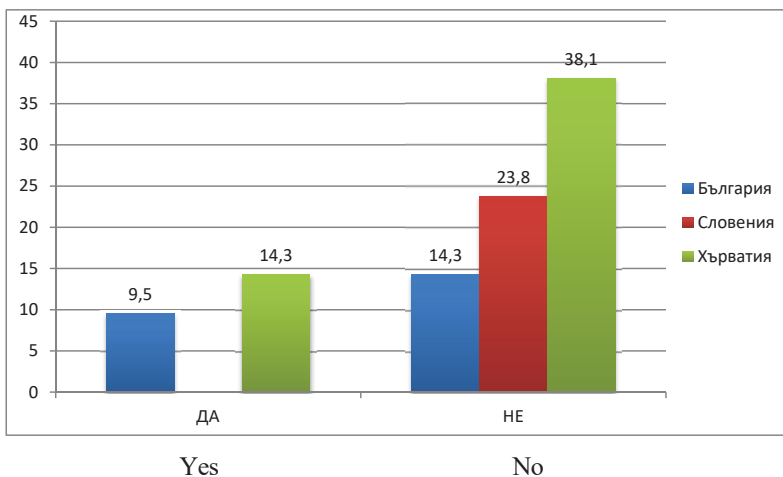
Fig. 8. Opinion in support of lecturers holding an academic title

Table 7. Percentage of colleagues holding the academic title of doctor

What percentage of your colleagues hold the academic title of doctor?					
		Country			Total
		Bulgaria	Slovenia	Croatia	
Up to 10%	Number	5	5	5	15
	%	25.0%	25.0%	25.0%	75.0%
From 11% to 30%	Number	0	0	4	4
	%	0.0%	0.0%	20.0%	20.0%
From 31% to 50%	Number	0	0	1	1
	%	0.0%	0.0%	5.0%	5.0%
Total	Number	5	5	10	20
	%	25.0%	25.0%	50.0%	100.0%

Table 8. Percentage of colleagues holding an academic title

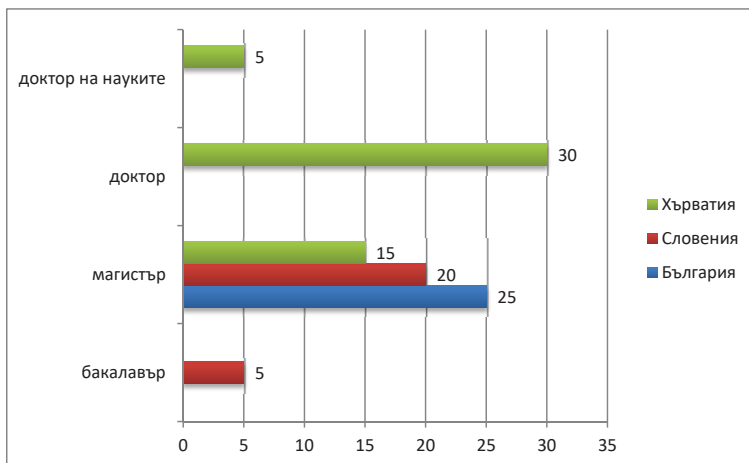
		Country			Total
		Bulgaria	Slovenia	Croatia	
Up to 10%	Number	4	5	7	16
	%	20.0%	25.0%	35.0%	80.0%
From 11% to 30%	Number	0	0	2	2
	%	0.0%	0.0%	10.0%	10.0%
From 31% to 50%	Number	0	0	1	1
	%	0.0%	0.0%	5.0%	5.0%
45.00	Number	1	0	0	1
	%	5.0%	0.0%	0.0%	5.0%
Total	Number	5	5	10	20
	%	25.0%	25.0%	50.0%	100.0%



Green – Croatia, red – Slovenia, blue - Bulgaria

Fig. 9. Requirements for people employed in the field of drug policy to hold an academic title

Notably, some institutions in Croatia and Bulgaria have a requirement for the people employed at these institutions to be also representatives of the academia (*university assistants, associate professors, professors*); however, these percentage differences among the countries are insignificant ($\chi^2 = 2.35$, $p = 0.308$).

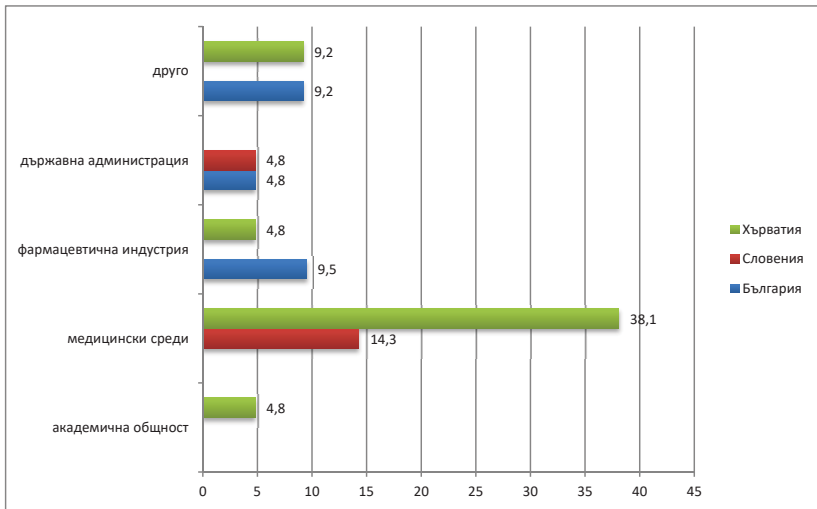


1) Doctor of sciences; 2) Doctor; 3) Master; 4) Bachelor
 Green – Croatia, red – Slovenia, blue - Bulgaria

Fig. 10. Education of the surveyed people (%)

In addition, it should be noted that 60% of the surveyed people hold a *Master's* degree and only one holds the title of *doctor of sciences* and one hold a *Bachelor's* degree (fig. 10).

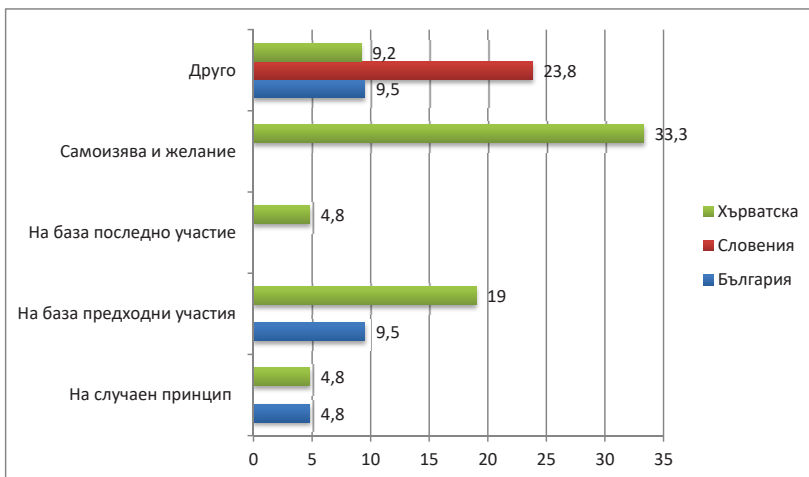
The main source of staff, in the opinion of the people surveyed from the three countries, are the medical (52.4%) and pharmaceutical (14.3%) community, and roughly 10% come from the state administration (fig. 11).



1) Other; 2) State administration; 3) Pharmaceutical industry; 4) Medical community; 5) Academia
Green – Croatia, red – Slovenia, blue - Bulgaria

Fig. 11. Source of staff

How the employees from the various organization participate in the course for upgrading education differs from one country to another and these differences are statistically relevant ($\chi^2 = 27.8$, $p = 0.027$). For example, in Bulgaria participation is based mostly on previous participation (9.5%) and randomly (4.8%), in Slovenia it is not specified how participation is determined but it is different from the possible answer options specified in the survey cards (23.8%). In Croatia over 33% of participation is based on the will of the employer to participate (fig. 12).



1) Other; 2) Volunteering and personal desire; 3) Based on the last participation; 4) Based on previous participations; 5) Randomly

Green – Croatia, red – Slovenia, blue - Bulgaria

Fig. 12. Distribution in shares of participation in the courses for continuing education

There are concerning results of the surveyed people's awareness of whether and what forms of remote education are offered in the respective country and which ones are recognized by the law on higher education. There is a very high percentage of people giving negative answers which shows that people do not know and are not aware of the training organized and education offered (tables 9 and 10).

Table 9. Awareness of the forms of remote web-based education in the field of drug policy offered in the respective country

		country			Total
		Bulgaria	Slovenia	Croatia	
yes	Number	3	4	4	11
	%	14.3%	19.0%	19.0%	52.4%
no	number	2	1	7	10
	%	9.5%	4.8%	33.3%	47.6%
Total	number	5	5	11	21
	%	23.8%	23.8%	52.4%	100.0%

Table 10. Awareness of the forms of web-bases education in the field of drug policy recognized by the law on higher education

$\chi^2=2.91, p=0.33$			country			Total
			Bulgaria	Slovenia	Croatia	
no	number	4	3	4	11	
	%	19.0%	14.3%	19.0%	52.4%	
I don't know	number	1	2	7	10	
	%	4.8%	9.5%	33.3%	47.6%	
Total		number	5	5	11	21
		%	23.8%	23.8%	52.4%	100.0%

Roughly 52% of the people surveyed in the three countries are aware of the organization of forms of remote web-based education and training in the field of drug policy offered in the respective country but the same percentage of the people are not aware (table 10) of the forms of remote web-based education organized in the field of drug policy, recognized by the law on higher education. As a matter of fact, 71% of the surveyed people are not aware in detail of web platforms offering courses of continuing and upgrading education. Some of the few are the results shown for Mediatelly and Doktrina.

In the surveyed areas, there are different organizations offering and organizing post-graduate upgrading education. While in Bulgaria and Slovenia these are mostly higher education institutions, governmental organizations and private companies, in Croatia these are governmental organizations and there is a certain percentage of people who are not interested in this issue (Table 11).

Table 11. Institutions in the respective country which most often offer and organized post-graduate upgrading education in the field of drug policy

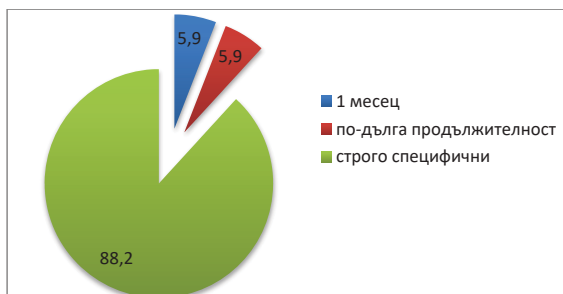
			country			Total
			Bulgaria	Slovenia	Croatia	
$\chi^2=42, p=0.001$		number	1	0	0	1
		%	4.8%	0.0%	0.0%	4.8%
Higher education institutions	number	1	0	0	1	
	%	4.8%	0.0%	0.0%	4.8%	
Governmental organizations	number	0	0	2	2	
	%	0.0%	0.0%	9.5%	9.5%	
Non-governmental organizations	number	0	0	2	2	
	%	0.0%	0.0%	9.5%	9.5%	
Private companies for improvement of qualifications	number	0	3	0	3	
	%	0.0%	14.3%	0.0%	14.3%	
I am not interested	number	0	0	4	4	
	%	0.0%	0.0%	19.0%	19.0%	
Higher education institutions and governmental organizations	number	0	0	3	3	
	%	0.0%	0.0%	14.3%	14.3%	
Non-governmental organizations and private companies	number	0	2	0	2	
	%	0.0%	9.5%	0.0%	9.5%	
Higher education institutions, non-governmental organizations and governmental organizations	number	1	0	0	1	
	%	4.8%	0.0%	0.0%	4.8%	
Higher education institutions, private companies and governmental organizations	number	3	0	0	3	
	%	14.3%	0.0%	0.0%	14.3%	
Total	number	5	5	11	21	
	%	23.8%	23.8%	52.4%	100.0%	

Logically, the most representative institutions for education in the field of drug policy are higher education institutions, private companies for the improvement of qualifications and non-governmental organizations (Table 12).

Table 12. Institutions in the respective country which most often offer and organize courses of post-graduate upgrading education in the field of drug policy, the most representative ones

		Country			Total
		Bulgaria	Slovenia	Croatia	
Higher education institutions	number	0	0	3	3
	%	4.8%	9.5%	14.3%	28.6%
Non-governmental organizations	number	0	0	1	1
	%	0.0%	0.0%	4.8%	4.8%
Private companies for improvement of qualifications	number	0	3	0	3
	%	0.0%	14.3%	0.0%	14.3%
I don't know	number	0	0	7	7
	%	0.0%	0.0%	33.3%	33.3%
Higher education institutions and non-governmental organizations	number	4	0	0	4
	%	19.0%	0.0%	0.0%	19.0%
Total	number	5	5	11	21
	%	23.8%	23.8%	52.4%	100.0%

There are no statistically relevant differences in the opinions of the people surveyed from the different countries in terms of the duration of the upgrading education. Over 88% of all the surveyed persons think that they should have special characteristics depending on the specific training and education (fig. 13).



Blue – one month, red – longer, green – strictly specific

Fig. 13. Duration of the education

In the opinion of the surveyed people every training and education should be completed by sitting an exam - written (38.9%) or oral (16.7%) and afterwards a certificate should be issued (Table 13).

Table 13. In the case of web-based education in the field of drug policy, how should the participants in the course be assessed to ensure the quality of the education and training

$\chi^2=20.12, p=0.65$	Country			Total	
	Bulgaria	Slovenia	Croatia		
The course should finish with online test examination of participants which serves as the basis for a certificate to be issued	number	4	0	3	7
	%	22.2%	0.0%	16.7%	38.9%
Every participant to obtain a certificate based on a paper/ thesis submitted online	number	0	1	1	2
	%	0.0%	5.6%	5.6%	11.1%
Following a test examination of participants held at the organization which organizes the courses, a certificate is to be issued to the participants	number	1	0	1	2
	%	5.6%	0.0%	5.6%	11.1%
Participants in the course are to obtain a certificate following an oral defence of course-based project/ exam thesis to a committee of experts	number	0	0	3	3
	%	0.0%	0.0%	16.7%	16.7%
Other	number	0	1	0	1
	%	0.0%	5.6%	0.0%	5.6%
A combination of the specified answers	number	0	3	0	3
	%	0.0%	16.7%	0.0%	16.7%
Total	number	5	5	8	18
	%	27.8%	27.8%	44.4%	100.0%

V.2. Correlational Analysis

The correlational analysis (using the method of Spearman) establishing the correlation among the individual categories of variables has an interesting result of statistically

relevant negative correlation between the evaluation of knowledge and how knowledge is updated in the field of drug policy. The study aimed at also establishing to what extent the self-evaluation of knowledge in the field of drug policy is related to the frequency of the post-graduate trainings and education and the frequency of practical situations related to the field of drug policy.

The analysis carried out by using the method of Spearman shows that the evaluation of the up-to-datedness of knowledge in the field of medicines policy is determined by the extent to which the surveyed person faces such issues in the everyday work. There is a positive and strong correlation, for example, depending on how often the person faces issues of medicines policy in the practice and the evaluation is better as such issues occur more often in everyday activity ($\rho = 0.695$, $p=0.0001$).

The outcome suggests that self-preparation and education with lecturers-experts in the field of drug policy improve the evaluation of knowledge in this field ($\rho = 0.631$, $p = 0.002$). Moreover, the fact that additional trainings aimed at improving qualifications are organized more often also contributes to better self-evaluation of the up-to-datedness of knowledge in the field ($\rho = 0.577$, $p = 0.006$) (Table 14).

By using a correlational analysis we have also tested to what extent the selection for participation in upgrading education programmes is determined by the level of awareness of the organization of such courses and programmes. The analysis has shown that the systemic choice of employees to participate in upgrading education programmes depends to a very large extent on the surveyed people's awareness of the organization of web-based education ($\rho = -0.591$, $p = 0.005$). In addition, the surveyed people awareness of the organization of trainings and education in the field of drug policy is highly correlated and depends to a very large extent on the type of institutions offering such education (e.g. higher education institution, governmental organizations, private organizations) ($\rho = -0.484$, $p = 0.026$) – Table 15.

Table 14. Correlational analysis of the correlations related to the evaluation of the up-to-datedness of knowledge in the field of drug policy

		How do you evaluate the up-to-datedness of your knowledge in the field of drug policy?	How often do you face situations in which issues of drug policy are involved in your everyday work?	How do you update your knowledge of issues of drug policy at your institution?	How often does your institution organize additional education of employees in relation to issues of drug policy in order to improve qualifications?
How do you evaluate the up-to-datedness of your knowledge in the field of drug policy?	rho	1.000	.695**	-.631**	.577**
	p	.	.000	.002	.006
How often do you face situations in which issues of drug policy are involved in your everyday work?	rho	.695**	1.000	-.377	.490*
	p	.000	.	.092	.024
How do you update your knowledge of issues of drug policy at your institution?	rho	-.631**	-.377	1.000	-.679**
	p	.002	.092	.	.001
How often does your institution organize additional education of employees in relation to issues of drug policy in order to improve qualifications?	rho	.577**	.490*	-.679**	1.000
	p	.006	.024	.001	.
** . Correlation is significant at the 0.01 level (2-tailed).					
* . Correlation is significant at the 0.05 level (2-tailed).					

Table 15. Correlational analysis of the selection of employees for participation in upgrading education programs

		How are the particular employees selected to participate in a particular program for additional upgrading education at your institution?	Are you aware of forms of remote web-based education organized in the field of drug policy, offered in your country?	Which institutions in your country offer most offer and organize post-graduate courses for upgrading education in the field of drug policy?
How are the particular employees selected to participate in a particular program for additional upgrading education at your institution?	rho	1.000	-.591**	.090
	p	.	.005	.697
Are you aware of forms of remote web-based education organized in the field of drug policy, offered in your country?	rho	-.591**	1.000	-.484*
	p	.005	.	.026
Which institutions in your country offer most offer and organize post-graduate courses for upgrading education in the field of drug policy?	rho	.090	-.484*	1.000
	P	.697	.026	.
**. Correlation is significant at the 0.01 level (2-tailed).				
*. Correlation is significant at the 0.05 level (2-tailed).				

V.3. Regressive analysis

The regressive analysis was used in order to determine to what extent the frequency (how often) of organization of additional education in the field of medicines policy is influenced by factors such as how knowledge of issues in the field of drug policy is updated, staff policy and type of institution organizing and offering post-graduate upgrading education. The regressive model has shown high predictability ($R = 0.699$, $p = 0.009$), confirming that it is exactly the specified independent variables that have great influence on how often education is organized (the frequency of education). In particular, the most influential predictors are how knowledge is updated ($\beta = -0.532$, $p < 0.011$) and the type of institution offering post-graduate education ($\beta = -0.521$, $p < 0.009$).

Table 16

	Non-standardized ratios		Standardized ratios	t	p
	B	Standard error	Beta		
Constant	3.302	.428		7.707	.000
How knowledge is updated	-.018	.006	-.532	-2.870	.011
Staff policy	.005	.069	.012	.066	.948
Type of education institution	-.017	.006	-.521	-2.957	.009

a. Dependent variable: how often education is organized

VI. DISCUSSION

Our study has demonstrated that the fields of education and the post-graduate qualification need to be updated focusing on the advanced digital forms of education through the development, updating and adaptation of specialized education programs for the medical professionals to keep abreast of the fast changing environment in the field of drug policy and regulation such as analysis of the impact of implementation of the legislation, national and international standards, advisory mechanisms, etc. based on an analysis of the needs for education. This also supports the findings of other studies carried out by our experts in the field of medical education and training, taking into account the need for modernization and digitalization of contemporary higher education, studying the attitudes of lecturers and teachers in this field [Kirilova, 2018]. The study carried out by K. Kirilova and coll. (2018), for example, demonstrated the positive attitude of the lecturers at the Medical University – Plovdiv, concerning the introduction of a web-based information system assessing the quality of education at the university. The development and introduction of a web-based education quality assessment system would improve communication and feedback between students-lecturers-university management [Kirilova, 2018]. Other researchers working on the need for the introduction at a larger scale of web-based technologies in the field of higher education have found that the modernization of the education of healthcare professionals is determined by the need for continuous improvement of the healthcare for patients to ensure good medical practice [Serbezova, 2011]. The healthcare quality standards proposed in a number of studies are in line with European practices; however, they are not always learned by students as professional competences [Serbezova, 2011]. The modern education trends are highly influenced by the development of technologies and the digital revolution which is a challenge to the academia to prepare, provide and study educational tools and

technologies which correspond to the learning style of the new generation, to improve pedagogical practice and to improve the level of professional competence of the future medical professionals [Serbezova, 2011].

Our study on the existing needs and the need for new specialized education programs for medical professionals in the field of management and implementation of national and international strategies and policies in the field of drug policy for the implementation of the legislation, strategies, programs and policies at national and international level shows that the medical professional in Bulgaria and from the Balkan region are motivated and try to upgrade their education in this field. They are relatively well familiar with the opportunities for upgrading education in the field of medical education and are willing to participate in various forms post-graduate improvement.

The attitudes we have found among the working medical professionals and their desire to improve their qualifications are in line with the trends of career management skills – a subject matter which was on the agenda as early as the beginning of the XXI century. For example, the conclusions of the Lisbon European Council of 2000 – even without mentioning the term *guidance* – point out a “*European framework defining the new basic skills to be acquired through life-long learning: entrepreneurship and social skills*”. The idea of flexible guidance and information systems is gaining ground – systems developed and adapted according to the local conditions, within the perspective of for life-long learning. Personality development aimed at becoming aware of one’s own personal potential is defined as the common objective of education and training as is the development of society and the economy. The personal development is also mentioned in the Communication of the Commission on *Life-long Learning* (November 2011): *Making a European area of life-long learning a reality*. The Communication stresses the importance of the flexible guidance systems which should be adaptable to the “*to the changing needs of the individual learner – bearing in mind the value of guidance for personal fulfilment, as well as the needs of the labour market and the wider community*”.

The subject of career management has become a priority in the process of implementing the life-long guidance strategies. At an early stage, *the principle of empowering the individual in the guidance process* was added to the concept of *life-long learning*. The approach is envisaged in the **Joint Interim Report (2004) of the Council and of the Commission on the implementation of the Lisbon Strategy – Education and Training** specifying guidance as one of the four key activities to create an open, attractive and accessible learning environment in order to encourage learning at all ages and in different circumstances, to enable citizens to manage their learning and work and, especially, to facilitate the process of access and progress of various learning and career development opportunities. The Resolution *Strengthening policies, systems and practices for guidance throughout life in Europe* (2004) reconfirms as priority “*The importance of re-focusing guidance provision, where appropriate, in order to develop citizens’ life-long and lifetime learning and management skills as an integral part of education and training programs.*” The emphasis is on career management skills and a competence-based approach. The individual is required to acquire certain competences in the life-long learning process. The European framework on key competences considerably contributes to the introduction of to the EU education and training policies of the trend of competence-based learning and teaching and its new paradigm of “learning outcome”.

The attitudes we have established the respondents’ readiness to participate in web-based forms of education, whenever they are given the chance, are in line with trends established earlier in the higher medical education reporting the importance of interactive technologies to place the learner at the center of the education process and to enrich the traditional education environment. This new environment comprises various forms of interaction between the learners in the virtual teams of working projects, communication on equal footing between the learner and educator based on dialogue and negotiation. The educator is no longer the single source of knowledge – he is an instructor, a facilitator (prepares in advance and provides on the Internet/ Intranet guidelines on the performance of

study tasks), facilitates and supports learning through advice and answers questions at any time. Learners are able to make use of various sources of information such as expert opinions, websites, multimedia programs. They are all elements of a contemporary educational environment [Serbezova, 2015].

Although there are the conditions for life-long learning in the three countries of the Balkan region which were part of the study, this trend needs to be further developed also in the field of drug policy and regulation, especially for the people working in the area of management of medical services and healthcare policy. Access to upgrading education should be ensured for everyone willing to have access so that the European trends in this regard are met which unequivocally stresses the fact that *life-long guidance* ensures good career development and creates the skills of career management. As has already been mentioned, the subject matter of “career management skills” is considered to be a priority in the implementation of the strategies on life-long guidance.

CONCLUSIONS

The creation specialized online education programs and other activities (seminars, conferences, etc.) for the professional qualification of employees undoubtedly will contribute to acquiring better qualifications and to improving the quality of healthcare services for the population.

In line with this and to meet the contemporary trends in the field of post-graduate education, the higher medical universities trusted the most by the surveyed people in the countries subject to the study and the other forms of career development offering post-graduate courses of education had better focus on the development and introduction of innovative forms of web-based post-graduate and upgrading education on the issues of drug policy which will enable more people to participate and update their knowledge in this dynamic and rapidly changing area of scientific knowledge.

CONTRIBUTION

Practical scientific

1. The study we have carried out clearly shows the need for the creation and development of digital forms of continuing education for medical professionals in the field of drug policy because the data from the survey clearly demonstrate that the medical professionals in Bulgaria and the Balkan region are motivated and want to upgrade their education in this field and would like to have more such opportunities.

2. The needs established in the study and the need for the creation of new specialized education programs for medical professional in the field of management and implementation of national and international strategies and policies in the field of drug policy for the implementation of legislation, strategies, programs and policies at national and international level will also benefit the higher education institution in this country in their planning of activities and the introduction of such courses will contribute to developing their portfolio and to attracting more learners.

3. The study suggests that the respondents trust the most the post-graduate courses and programs offered by higher education institutions and this once again reaffirms the role of higher education institutions when it comes to the quality of the acquisition of adequate and up-to-date knowledge.

Applied scientific

4. The development of communication, digital, medical and drug technologies, and recently also the epidemiological situation, made it necessary to accelerate the digitalization of the healthcare sector and sharply increased the need for rapid changes in the healthcare drug policy and for continuous relation and education of professionals. The only possible form ensuring fast communication and timely access from anywhere is the digital one, but more importantly, there is a

need for new platforms, professionals and regulatory framework (requirements to education and application).

PUBLICATIONS IN RELATION TO THE DOCTORAL THESIS

1. **B. Brankov, A. Zlatareva.** Continuing education as a factor for efficiency and quality in career development. *World Journal of Pharmacy and Pharmaceutical Sciences*, 2020, 9 (8): 319-333, DOI: 10.20959/wjpps20208-16861
2. **B. Brankov, A. Zlatareva.** Comparative analysis of the awareness of medical professionals in three Balkan countries (Bulgaria, Croatia and Slovenia) in respect to the continuing education of medical professionals in the area of pharmaceutical policy in the respective countries. *Folia Medica*, 2021, 63(x): xx-xx.
3. **B. Brankov, A. Zlatareva.** Analysis of the readiness of medical professionals from Bulgaria, Croatia and Slovenia on the need for continuing online training on matters relating to drug policy. *Int Res J Med Med Sci*, 2021, 9(1): 9-18, doi: 10.30918/IRJMMS.91.20.051.

EUROPEAN PRACTICES AND STANDARDS ON DIGITAL FORMS OF LIFELONG LEARNING OF MEDICAL PROFESSIONALS IN THE FIELD OF DRUG POLICY

PURPOSE

The purpose is to study and compare the available digital programmes for specialized education of medical professionals from Bulgaria and from the Balkans in the field of drug policy in order to establish to what extent the medical professionals are aware of the management and implementation of national and international strategies and policies in that field and what are their needs of additional training.

To what extent the qualified medical professionals are acquainted with these programmes and use them for “lifelong learning” and for improvement of their qualification and what is the degree of confidence in them, as well.

TASKS

1. To establish the point of view of the medical professionals from the Balkans and from Bulgaria concerning the need to upgrade their knowledge in the field of drug policy in order to ensure better career development and higher qualification.
2. To what extent the medical professionals from Bulgaria and the specialists from the Balkans have access to and are aware of the available online specialized programmes for lifelong learning in connection with their professional qualification.

3. To study the available specialized training programmes for medical professionals in the field of drug policy - for example national and international standards, consultation mechanisms and other depending on the performed analysis of the training needs (see task 1).

MODEL QUESTIONNAIRE

Instructions for completion:

Please answer all questions.

Please enter your choice by ticking off the relevant box or enter information in the relevant field.

QUESTIONS 1-10 aim to establish how the medical professionals evaluate their knowledge in the field of drug policy and whether it is up-to-date, what is their attitude to further training in this area, as well as how the institutions where they work encourage the post-graduate studies of their specialists and their career development.

1. Please, enter your place of work:

2. How do you evaluate the up-to-date nature of your knowledge in the field of drug policy:

- very good
- good
- satisfactory
- I don't know

3. How often do you face in your everyday work situations referring to issues in the field of drug policy?

- at least once a day
- 1-3 times a week or less
- 1-2 times a month or less
- once every 6 months
- less than once a year
- I don't know

4. How do you refresh your knowledge on the issues of the drug policy in your institution?

- Organization of seminars with specialists from our institution
- Inviting external experts - lecturers at least once a year
- Self-training
- Other (please specify):

5. How do you assess the staff policy in your institution concerning the upgrade training and qualification improvement of the employees in the field of the drug policy?

- Employees must be aware of the most up-to-date trends in this area, courses for qualification improvement are provided

- External lecturers are invited and on-the-job training is organized
- Other, please specify.....

6. How often does your institution offer post-graduation training course?

- once every 6 months
- once a year
- every 2 years
- never
- I don't know

7. How often does your institution organize additional trainings of employees on the issues of the drug policy for the purpose of qualification improvement?

- once a year
- once every 6 months
- more than once every 6 months
- Trainings are not organized

8. Are there prescribed requirements to the applicants for participation in post-graduate lifelong learning:

- Yes
- No

9. Which are the criteria in your institution for selection of applicants for lifelong learning on the issues of the drug policy?

- No selection is made, everyone can take part
- Based on education
- Based on the initially acquired specialty (medical doctor, pharmacist, economist, etc.)
- Based on their experience and the need to improve their potential
- Based on their competencies and responsibilities (drugs, medical articles, procedures, equipment)
- Based on specific areas for which they have to acquire more knowledge and by specific knowledge (rare diseases, oncologic diseases, etc.)
- Other (please specify):

10. Please specify the per cent distribution of the basic education of the medical professionals working in your institution (the sum total of the per cents is to be equal to 100%):

- Medical doctors
- Pharmacists

- Economists
- Lawyers
- Public health specialists
- Medical ethics experts
- Statisticians
- Other

QUESTIONS 11-22 aim to establish which forms of additional training in the field of drug policy are known to the medical professionals and what is the extent of confidence in them?

11. Which forms of additional upgrade training do you prefer?

- Course for post-graduate qualification - in the form of lectures, off-the-job
- Seminars organized at the work place with visiting lecturers
- Remote, web-based form, on-the-job
- Other

12. Do you think that the instructors conducting lifelong training must have a doctoral degree?

- Yes
- No

13. What percentage of your colleagues have a doctoral degree?

- Up to 10%
- From 11% to 30%
- From 31% to 50%
- From 51% to 80%
- More than 80%

14. Do you have to be a member of the academic society in the institution that you represent (professors, associate professors, assistants)?

- Yes
- No

15. What percentage of your colleagues are members of the academic society (professors, associate professors, assistants)?

- Up to 10%
- From 11% to 30%
- From 31% to 50%
- From 51% to 80%
- More than 80%

16. From which area most often does your institution source competent employees, with what degree of education:

- The academic society
- From the medical practice/ practising medical doctors
- Non-government organizations
- Pharmaceutical industry
- Medical devices industry
- Government administration (ministries, health funds, etc.)
- Insurance companies
- Other

17. How does your institution determine which employees will be included in specific programme for additional upgrading training?

- On a random basis
- On the basis of participation in previous trainings
- On the basis of the last participation in post-graduate training course (for the purpose of equal treatment of employees)
- Choice by lot
- Based on the will expressed by the employees themselves
- Other (please specify):

18. Are you aware of any forms of remote web-based training conducted in the field of drug policy in your country?

- Yes
- No

19. Do you know which forms of remote web-based training conducted in the field of drug policy are recognized by the higher education law?

- Yes
- No
- I don't know

20. What kind of instruments exist for validation of the results from informal training in your country? Please, describe

.....

.....

.....

21. Which institutions in your country most often offer and organize courses for post-graduate upgrading training in the field of drug policy?

- Universities
- Government organizations
- Non-government organizations
- Private companies for qualification improvement
- I am not interested

22. Which of the organized and offered web-based trainings for post-graduate qualification in the area of the drug policy are most representative?

- Universities
- Government organizations
- Non-government organizations
- Private companies for qualification improvement
- I don't know

23. What kind of web-based platforms offering online training in your country for qualification improvement in the field of drug policy do you know? Please specify.

- 1.
- 2.
- 3.

.....

- I don't know

24. A course with what duration according to the regulations in your country is considered upgrade training and ensures higher qualification and career growth?

- 1 month
- 3 months
- 6 months

- Longer
- Strictly specific depending on the particular training

25. When conducting web-based training in the field of drug policy, how should be evaluated the trainees in order to ensure quality of the conducted training?

- The course shall end with online test for the participants and a certificate is to be issued thereby.
- Every participant in the online training shall get certificate on the basis of the developed course assignment/test thesis submitted online.
- The course shall end with test for the participants, conducted at the organization providing the courses (on-site) and a certificate is to be issued thereby.
- Participants shall receive certificate after oral defence of a course project/thesis before a commission of experts in the institution organizing the training.
- Other (please specify):

26. Please, specify your degree of education

- Bachelor
- Master
- Doctor
- PhD

Bulgarian legislation in the area of Education

- [Preschool and School Education Act](#)
(Promulgated - SG, No. 79 of 13/10/2015, effective from 01/08/2016, amended, No. 108 of 29/12/2018, effective from 01/01/2019)
- [Vocational Education and Training Act](#) (Promulgated - SG, No. 68 of 13.01.2009, amended, No. 92 of 06/11/2018)
- [Higher Education Act](#) (Promulgated., SG No. 112 of 27/12/1995, supplemented, No. 86 of 18/10/2018, effective from 20/01/2019)
- [Research Promotion Act](#) (Promulgated - SG, No. 92 of 17/10/2003, amended, No. 58 of 18/07/2017, effective from 18/07/2017)
- [Development of the Academic Staff in the Republic of Bulgaria Act](#) (promulgated - SG, No. 38 of 21/05/2010, amended, No. 17 of 26/02/2019)

[Act on Development of the Academic Staff in the Republic of Bulgaria](#) (Prom. SG. 38/21 May 2010, amend. SG. 81/15 Oct 2010, amend. SG. 101/28 Dec 2010, amend. SG. 68/2 Aug 2013, amend. and suppl. SG. 30/3 Apr 2018, amend. SG. 17/26 Feb 2019)

- [Loans for Students and PhD Students Act](#)
- [Public Education Act](#) repealed with the School and Preschool Education Act (Promulgated - SG, No. 79 of 13/10/2015, effective from 01/08/2016)
- [Educational Degree, General Education Minimum and Curriculum Act](#) repealed by the Preschool and School Education Act (Promulgated., SG No. 79 of 13/10/2015, effective from 01/08/2016)
- [Access to Public Information Act](#)

European regulations in the field of EDUCATION

1. Conclusions on preparing young people for the 21st century: an agenda for European cooperation on schools (21 November 2008)
2. Council conclusions on a strategic framework for European cooperation in education and training (Education and Training 2020) (12 May 2009)

3. Conclusions of the Council and of the Representatives of the Governments of the Member States, meeting within the Council on developing the role of education in a fully functioning knowledge triangle (26 November 2009)
4. Council conclusions on early childhood education and care: providing all our children with the best start for the world of tomorrow (19-20 May 2011).
5. Council conclusions on the modernisation of higher education (28 and 29 November 2011)
6. Council conclusions on the social dimension of higher education (16 and 17 May 2013)
7. Council conclusions on the global dimension of European higher education (25 and 26 November 2013)
8. Council conclusions on effective leadership in education (25 and 26 November 2013)
9. Council conclusions on multilingualism and the development of language competences (20 May 2014)
10. Declaration on promoting citizenship and the common values of freedom, tolerance and non-discrimination through education (Paris, 17 March 2015)
11. Council conclusions on the role of early childhood education and primary education in fostering creativity, innovation and digital competence (18 and 19 May 2015)
12. 2015 Joint Report of the Council and the Commission on the implementation of the strategic framework for European cooperation in education and training (Education and Training 2020) — New priorities for European cooperation in education and training (23 and 24 November 2015)
13. Council conclusions on reducing early school leaving and promoting success in school (23 and 24 November 2015)
14. Resolution of the Council and of the Representatives of the Governments of the Member States, meeting within the Council on promoting socioeconomic development and inclusiveness in the EU through education: the contribution of education and training to the European Semester 2016 (24 February 2016)
15. Council Conclusions on developing media literacy and critical thinking through education and training (30 May 2016).

16. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: “A new skills agenda for Europe: Working together to strengthen human capital, employability and competitiveness (10 June 2016).
17. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions “Improvement and Modernization of Education (7 December 2016)
18. Council Recommendation on Upskilling Pathways: New Opportunities for Adults (19 December 2016)
19. Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on Interim evaluation of Erasmus+ Programme (2014 - 2020) (31 January 2018)
20. Conclusions of the Council and of the Representatives of the Governments of the Member States, meeting within the Council, on Inclusion in Diversity to achieve a High Quality Education For All (17 February 2017)
21. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions “Strengthening European Identity through Education and Culture: The European Commission's contribution to the Leaders' meeting in Gothenburg, 17 November 2017”
22. Council Recommendation on tracking graduates (20 November 2017)
23. Council conclusions on a renewed EU agenda for higher education (20 November 2017)
24. Council Conclusions on school development and excellent teaching (20 November 2017)
25. Conclusions of the European Council (14 December 2017)
26. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on Digital Education Action Plan (17 January 2018)
27. Council Recommendation on a European Framework for Quality and Effective Apprenticeships (15 March 2018)

28. [Council Recommendation on Common values, Inclusive Education and the European Dimension of Teaching (22 May 2018)]

29. [Council Recommendation on Key Competences for Lifelong Learning (22 May 2018)]