

Smoking cessation service in the pharmacy setting - attitudes of pharmacy students, pharmacists and the general public

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Abstract

Smoking is a global public health problem, and control measures should be implemented in the community so as to reduce the number of smoking-related diseases and healthcare costs. Community pharmacies are ideal places for providing tobacco cessation counselling as a type of public health service, because they are the most accessible health facilities with direct contact with patients. We aimed to examine attitudes towards the implementation of such services, conducting surveys on a sample of pharmacy students (N=300), community pharmacists (N=383) and the general public (N=987) in the Republic of Serbia. The introduction of smoking cessation services at pharmacies was supported by pharmacy students (59.7%), pharmacists (49.2%), and the general public (36.7%). No difference was found between pharmacists' attitudes in terms of their gender, age, level of education and years of experience. We found evidence that pharmacists as public health practitioners were recognized mostly by students (94.3%). The majority of them (86.3%) recognized the need for additional education in order to implement new services, and every third pharmacist recognized a gap in their education. The data indicate the need for directed research in order to explore the educational needs and competences for practicing pharmacists and enable them to perform services such as smoking cessation in the future.

Key words: smoking cessation, pharmacy services, attitudes, health

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Introduction

With more than one billion current smokers in the world, tobacco smoking is considered a major public health issue globally (1). The World Health Organization has long recognised the important role that pharmacists have in the delivery of healthcare services within the community pharmacy setting, especially public health services (2-7). Key health development topics for community pharmacy can be smoking cessation, drug misuse, immunisation, mental health, nutrition, physical activity, oral health, sexual health and emergency hormonal contraception (8).

Due to their close contact with the public, accessibility and the availability from both urban and rural settings, with relatively long opening hours, community pharmacists are seen as efficient health service providers for many new services other than traditional ones (e.g., dispensing prescribed or non-prescribed medications and giving counseling or instructions about the dispensed medications). Moreover, community pharmacies could be seen as an ideal place for providing tobacco cessation counselling due to the availability of non-prescription nicotine replacement therapies offered at pharmacies.

Investments in public health activities in recent decades have led to a decrease in the incidence of smoking globally, but many countries still have a high prevalence of smoking in various population groups, including the student population (3, 4).

Tobacco consumers are exposed not only to nicotine, tobacco, tar, carbon monoxide, but also to other toxic chemicals (at least 50). Although awareness has been developed and raised towards the harmful effect of using tobacco products, people continue to smoke, mainly because of physical and psychological dependence on nicotine (5). It is believed that as much as 75% of premature deaths will be related to the harmful effects of tobacco smoke by the year 2025 (6). There is a proven relation between tobacco use and cardiovascular diseases, and tobacco cessation has a protective role when it comes to hypertension occurrence (7). Acute tobacco use is associated with a temporary blood pressure increase, and after 30 minutes a drop in blood pressure is noted. (5, 9, 10). Moreover, negative health consequences of smoking include cancer (lung, tongue, esophagus and other organs), chronic lung disease, stroke and other cardiovascular diseases. Smoking during pregnancy can lead to spontaneous abortions and low birth weight. Finally, exposure to secondhand smoke also has very serious health effects (11, 12).

Over 30% of the European population are smokers, including the populations of countries such as Bosnia and Herzegovina (30%), Croatia (31%), Bulgaria (32%), Latvia (30%). With the estimate rates of tobacco use in Serbian population reaching 33%, the percentage of smokers in Serbia is the highest of all European countries (1). Countries such as Greece and Russia significantly reduced the percentage of smokers in 2019 compared to 2015 (the Russian Federation from 33% to 27%, and Greece from 35% to 27%) (13). The national population health research conducted in Serbia in 2019 shows that the prevalence of smokers among people over 15 years old is 31.9% – 30.1% among the female and 33.9% among the male population. Specifically, the prevalence rate in the 15-24 age group is 21%, and it increases to 41.3% in the 45-54 age group (14). One of

the objectives of the Republic of Serbia Strategy is smoking prevention and cessation and the elimination/reduction of exposure to tobacco smoke, so that the proportion of the adult population and those under 18 who smoke daily or occasionally are exposed to tobacco smoke in the work environment and in public places is reduced by 10% (15). The Law on the Protection of the Population from Exposure to Tobacco Smoke was adopted in 2010 (16). This law prescribes a smoking ban in all closed public spaces and workplaces (excluding catering facilities). The data show that, after the adoption of this law in Serbia, the exposure to tobacco smoke decreased, but it is still at a high level. Community pharmacists can make an important contribution to the development and preservation of health. Evidence from the published literature is strong enough to demonstrate the important role of pharmacies and pharmacists in the areas of smoking cessation, emergency contraception and immunization (2, 12). Pharmacies are the most represented primary health institutions in a society. Some of their public health benefits include a wider availability for patients and accessibility of health services without previous appointment. Recently, an increasing number of countries have been actively involved in the promotion of public health services in pharmacies. Through the literature review, it was shown that pharmacists feel more comfortable when providing services related to medicines than to public health. In the United Kingdom, smoking cessation activities are the most common public health activity of pharmacists (17). Smoking is a type of a severe addiction, which is why quitting presents a major challenge. That is why many countries are introducing a pharmacy-based smoking cessation service, allowing pharmacists to initiate therapy or assess cessation success and monitor adverse reactions.

Some studies have shown that attitudes towards implementing and providing this pharmacy service can vary among pharmacy students, pharmacists and the general public (18-21). The aims of this paper were to examine the attitudes of pharmacy students, pharmacists and the general public towards the introduction of public health services in pharmacies at the primary level of healthcare in Serbia, with special reference to the smoking cessation service.

Materials and Methods

The research included three cross-sectional studies in samples of students, community pharmacists and the general public. The population of students included undergraduate students from all pharmacy faculties and departments in the Republic of Serbia. Data collection among the pharmacist group and general public was carried out in 2019 and 2020, while research among students was conducted in 2020 and 2021.

Three different purpose-built questionnaires, with closed and open-ended questions, were used in the research. Questionnaires for students, community pharmacists and the general public contained three groups of questions – socio-demographic characteristics, behaviors and attitudes towards the provision of smoking cessation services among other new public health services. The questionnaire intended for pharmacy students contained 19 questions, of which 12 were about attitudes, 4 about behaviors and 3 about their socio-demographic characteristics. The questionnaire

intended for pharmacists contained a total of 15 questions, and 7 were related to the pharmacists' attitudes, 1 to their behaviors and 7 to socio-demographic characteristics. Finally, the questionnaire intended for the general public contained 22 questions, of which 15 questions related to the respondents' attitudes, 2 to their behaviors and 5 to their socio-demographic characteristics. The answers for attitudes items ranged from 1 to 3, where 1 indicated "disagreement", 2 "neither agreement nor disagreement", and 3 indicated "agreement".

Several socio-demographic characteristics of the participants were collected. Data on gender, age, and level of education were collected for all three groups of respondents. Specific socio-demographic characteristics that were collected were: year and place of study for the student population, years of work experience and size of the pharmacy where they are employed for pharmacists, presence of chronic disease and frequency of visits to the pharmacy for the general public.

The survey was conducted by self-evaluation through the questionnaires. The study team conducted short interviews with the participants to explain the goals of the study and what was expected of them. Before distributing the questionnaire, participants were informed that the collected information would remain anonymous and that participation was completely voluntary. It was emphasized to the respondents that the questionnaire did not ask for their name or address, and that anonymity would be guaranteed. All participants provided informed consent to participate. Students were surveyed at their faculties, and the general public and pharmacists at community pharmacies. It took an average of 10 minutes to fill out each questionnaire.

The data collected were described using count and percentage. Differences in the representation of certain categorical variables resulting from socio-demographic characteristics of the respondents (gender, age, level of education) and certain attitudes of the respondents between subgroups were tested using a non-parametric test, Pearson's chi-square test (χ^2 , Chi-square). Values of $p < 0.05$ were considered statistically significant. SPSS 25.0 software was used for statistical processing of the results.

The study was approved by the Ethics Committee of the University of Belgrade – Faculty of Pharmacy (approval number 2490/1, issued November 12, 2013).

Results

In total, 300 pharmacy students participated in the study, predominantly female (75.6%). A similar number of respondents were in their fifth and fourth year of study (27.7%; 28.3% respectively), followed by the third and extended year of study (18% each). More than half of the respondents were from the Faculty of Pharmacy in Belgrade (59.8%), while the other pharmacy faculties respondent groups were smaller, as presented in Table I. The second study sample consisted of 383 community pharmacists, also with predominantly female respondents, 352 (92.1%). The mean age of the participants was 35.90 ± 8.32 years with an average of 9.58 ± 7.86 years of pharmacy service. Almost all of the pharmacists (95.5%) were from a large chain of pharmacies with more than 30

pharmacists. In our third sample, 987 persons representing the general public agreed to participate in the survey. More than half of participants (65.5%) were women. One third of participants (33.3%) were aged 21-30 and had chronic diseases (33.6%) (Table I). The questionnaire was filled out by a very similar percentage of respondents with completed high school and with university education (43% and 45.1%, respectively). The majority were employed (48.7%), while only 12.8% were unemployed.

Table I Socio-demographic characteristics of the populations included in the study

Tabela I Socio-demografske karakteristike populacija uključenih u istraživanje

Socio-demographic characteristics	Category	Subcategory	N (%)
Pharmacy students N=300	Gender	Female	226 (75.6)
		Male	73 (24.4)
	Study year	I	5 (1.7)
		II	19 (6.3)
		III	54 (18)
		IV	85 (28.3)
		V	83 (27.7)
		Extended year	54 (18)
	University	Belgrade	177 (59.8)
		Novi Sad	57 (19.3)
		Niš	36 (12.2)
		Kragujevac	14 (4.7)
Business academy in Novi Sad		12 (4.0)	
Pharmacists N=383	Gender	Female	353 (92.2)
		Male	30 (7.8)
	Pharmacy type	Independent pharmacy (1-4 pharmacists)	2 (0.5)
		Small pharmacy chain (5-30 pharmacists)	16 (4.2)
		Big pharmacy chain (above 30 pharmacists)	365 (95.3)
	Pharmacy location	city	339 (88.5)
		suburban	28 (7.3)
		village	16 (4.2)
	Postgraduate studies	magistration	50 (13.1)
		academic specialisation	40 (10.4)
		health specialisation	6 (1.6)
		PhD	2 (0.5)
None		285 (74.4)	
General public	Gender	Male	341 (34.5)
		Female	646 (65.5)

N=987	Age	18-20 years	59 (6)
		21-30 years	329 (33.3)
		31-40 years	172 (17.4)
		41-50 years	159 (16.1)
		51-60 years	136 (13.8)
		60 + years	132 (13.4)
	Level of education	Primary school	46 (4.6)
		High school	424 (43)
		Faculty	445 (45.1)
		Postgraduate studies	72 (7.3)
	Working status	Pupil/student	242 (24.5)
		Working	481 (48.7)
		Not working	126 (12.8)
		Retirement	138 (14)
Chronic disease	Yes	332 (33.6)	
	No	655 (66.4)	

During the study, 72.8% of respondents had the opportunity to learn about the roles and importance of public health. More than half of the students had some experience in public health activities (54.8%), and 98.3% would be happy to implement public health services in their pharmacy. A quarter of respondents among the general public used pharmacy services at least once a week (25.8%), and 48.9% at least once a month.

Almost all of the surveyed students (94%) responded positively when asked whether public health services provided in pharmacies could help preserve the health of the community and believed (98.7%) that a pharmacy was a place where public health services should be provided. The percentage of the general public who believed that public health activities should be an integral part of pharmacy services was higher than among pharmacists (80.3% versus 73.1%, respectively) (Table II).

The majority of students (94.3%) and general public (70.1%) believed that pharmacists should be educated on current public health topics and be able to practice as public health practitioners. The latter believed that the pharmacists' role is to educate patients about chronic diseases, immunization, proper nutrition, the harmful effects of tobacco intake, sexually transmitted infections and all other actions that can harm human health, in addition to dispensing medicines and providing information related to them. A marginally small proportion of the student sample thought of pharmacists only as medicines/drugs experts (1.3%). However, 76.4% of pharmacists consider themselves public health practitioners.

Furthermore, a high percentage of students of pharmacy (97%) believed that pharmacists had enough knowledge and skills and that they were competent enough to provide public health services. Despite the existing knowledge and skills, the majority of students in our study (86.3%) believed that additional training is needed in order for pharmacists to complete their knowledge in the field of public health and gain additional

expertise in the provision of public health services. Fewer pharmacists believed that they were competent to provide public health services (81.5%). Possible barriers in providing of public health services were identified across all three populations (Table III).

Table II Attitudes of pharmacy students, pharmacists and the general public about the introduction of public health services in pharmacies

Tabela II Stavovi studenata farmacije, farmaceuta i opšte javnosti o uvođenju usluga javnog zdravlja u apoteke

Attitude	Answers	Pharmacy students	Pharmacists	General public
		%		
Introduce public health services to pharmacies	A	98.7	73.1	80.3
	D	0.3	10.3	2.1
	N	1	16.6	17.6
A pharmacist is a public health practitioner	A	94.3	76.4	70.1
	D	1.3	6.1	4.2
	N	4.4	17.5	25.7
A pharmacist is competent enough to provide public health services	A	97	81.5	/
	D	3	5.1	/
	N	/	13.4	/
Additional training for pharmacists is needed	A	86.3	/	/
	D	13.7	/	/
	N	/	/	/
Users of health services have confidence in pharmacies when providing public health services	A	47	/	/
	D	32.5	/	/
	N	20.5	/	/

Legend: Agree (A), Disagree (D), Neither agree nor disagree (N), (/) represents 0%

Legenda: Saglasni sa tvrdnjom (A), Nisu saglasni sa tvrdnjom (D), Niti jesu niti nisu saglasni sa tvrdnjom (N), / - označava 0%

According to the views of students, the main barriers in the provision of public health services by pharmacists were lack of time (46.5%), lack of an adequate counseling spaces (28.5%) and users' trust in the pharmacists' expertise (21.1%). Similarly, the general public identified lack of time (48.4%) and staff (46.4%) as the biggest barrier in providing public health services. Pharmacists also believed that the main barriers were a lack of space (44.3%), and lack of training (40%) but they saw the lack of financial incentives as one of the obstacles as well (37.1%). The methods and techniques of interventions necessary for the smoking cessation service could be designed as an

additional training program coordinated by the associations of pharmacists, the Ministry of Health and educational institutions.

Table III Barriers to public health services according to different study populations

Tabela III Barijere za uvođenje usluga javnog zdravlja u apoteke prema stavovima ispitivanih populacionih grupa

Barriers to public health services	Pharmacy students	Pharmacists	General public
	%		
Lack of time	46.5	10.1	48.4
Lack of training	13.7	40	16.3
Trust of clients in the expertise of pharmacists	21.1		
Lack of interest of pharmacists	12.7		27.2
Lack of space	28.5	44.3	20
Lack of staff		11.9	46.4
Management		4.5	
Finance		37.1	

Respondents among the student population ranked the importance of public health services related to diabetes, flu/cold prevention and smoking cessation highly (75%, 70%, 59.7%, respectively). As seen in Table IV, the general public mostly supported activities such as blood pressure control (61.1%), proper nutrition education (57.2%), vaccination education (42.9%) and education on flu and cold prevention (40.1%). The introduction of smoking cessation service at pharmacies was supported by 49.2% of pharmacists and 36.7% of their patients (Table IV). The majority of pharmacists believed that, in addition to counseling and handing out brochures, there should also be some practical implementation of activities with users (78.9%). When asked about the education related to providing public health services, almost all pharmacists who participated in our study (91.1%) responded by saying that they build their competences in public health services through continuous education.

When asked whether pharmacists should be paid additionally for this service, 70.4% of pharmacy students said that they should be paid by the state, 3.4% by the patient, 9.9% from bonuses earned this way, and 16.3% of respondents believe that this service should not be paid for.

A higher percentage of female than male students believed that pharmacists had the knowledge and skills that would classify them as proper public health practitioners (98.2% versus 93.2%). Females also expressed a greater preference for providing public health services in a pharmacy compared to male respondents (99.6% vs. 94.4%). The

highest percentage of respondents from the 4th year of study (64.7%) believe that it is necessary to introduce counseling centers for quitting smoking in pharmacies.

Table IV Examples of potential public health services implemented in pharmacies according to different study populations

Tabela IV Primeri potencijalnih usluga javnog zdravlja koje bi se prema stavovima ispitanika različitih populacija mogle pružati u apoteci

Service	Pharmacy students	Pharmacists	General public
	%		
Counseling space for quitting smoking	59.7	49.2	36.7
Self-control of glycemia	75	65.8	39.6
Actions of solidarity with the elderly	27.67	49.6	28.7
Nutrition	19.33	73.6	57.2
Emergency contraception	8.33	74.1	35.9
Education on the prevention of flu, colds	70		40.1
Examination of the feet, skin of the face	36		24.8
Blood pressure control	52	58.9	61.1
Vaccination education	46.67	23.5	42.9

More male than female pharmacists considered themselves public health practitioners (86.7% vs. 75.5%). A statistically significant difference in the attitudes of pharmacists occurs in the attitudes towards the introduction of public health services in pharmacies ($p < 0.001$) in relation to the type of pharmacy in which they work. That difference was not observed in relation to their gender, postgraduate education, working years and age. Significantly more pharmacists working in pharmacies that were part of large chains (over 30 pharmacists) believed that public health services were necessary compared to pharmacists from smaller pharmacy chains (74.2% vs. 50%).

A higher percentage of male respondents from the general public (25.8%) reported that they regularly received information from the pharmacy about the harmful effects of tobacco smoke and the consequences of the consumption of tobacco products on their health, compared to female respondents (19.5%). The difference in respondents' answers to this question in relation to gender is statistically significant ($p=0.018$). A higher percentage of respondents over 50 years of age from the general public (31.3%) agreed with the statement given above, compared to the group of respondents aged 30 to 50 (23.6%) and those under 30 (13.4%) ($p<0.001$). In addition, in general population more respondents with a lower level of education (26.6%) compared to 17.2% of high level,

strongly agree that in the pharmacy they should regularly receive information about the harm of tobacco smoke and the consequences of the consumption of tobacco products on their health.

Discussion

Taking into account the percentage of students of pharmacy (98.7%) who believe that the pharmacy is the place where public health services should be provided, we can conclude that this percentage is much higher compared to some other studies.

A study conducted in Scotland in 2007 among pharmacists working in public pharmacies showed that the majority (63.2%) of study participants agreed that public health is important to their practice (22), while pharmacists in Nigeria, in an even higher percentage (94%) consider it acceptable for pharmacists to be involved in health promotion activities (19). In contrast to some countries where pharmacists have a high degree of acceptance for health promotion services, in other countries these services are still considered to be far less important compared to traditional services such as drug dispensing. One such example is the country of Moldova (19).

Most students in our research recognized the role of the pharmacist as a professional who should be involved in the provision of public health services. With their knowledge and skills, pharmacists are competent enough to provide public health services, which was confirmed by 97% of respondents. Despite the pharmacists' readiness for new services, respondents among students stated that it is desirable to have additional training, so that pharmacists can more easily adapt to new activities and be more confident in performing their roles in the field of public health. In accordance with this, experts believe that training, i.e., the introduction of programs/training in undergraduate education can significantly contribute to strengthening the position of pharmacists among health workers who provide services in the field of public health (23, 24). The World Health Organization has given recommendations regarding the steps to include pharmacists in the healthcare team (25).

The majority of pharmacy students believe that the general public trusts the expertise of pharmacists and is ready to cooperate, as confirmed by 47% of respondents in this study. Similar results were obtained in a study conducted in Scotland. It was revealed that a third of the participants believe that pharmacists are not competent enough to participate in healthcare promoting. About two-thirds believe that they lack stimulating knowledge, and one-third believe that they cannot apply current knowledge (22, 8). In contrast, the majority of pharmacists (95%) in a survey in Nigeria are confident about counseling patients on health promotion (19).

Barriers to service delivery can exist at the level of the pharmacist, patient or site. The main barrier to providing public health services in pharmacies, according to our respondents, is the lack of time that needs to be set aside for providing the service. Space and lack of training are also recognized as barriers. Due to the nature of pharmacies, it would be highly desirable to provide a private space where privacy for the implementation

of public health services would be ensured, so that patients would feel more comfortable and seek advice from the pharmacist sooner. Additional barriers are the lack of training, clients' trust in the expertise of pharmacists, but also lack of interest on the part of pharmacists. In a survey in Canada, almost two-thirds of pharmacists confirmed that they have a certain space in the pharmacy which makes it easier for them to provide a public health service. Respondents in Thailand (43%) believed that the pharmacy facility was a barrier to counseling on smoking cessation, as it did not provide sufficient space that would ensure privacy. Pharmacists in Nigeria (93.1%) did not consider facilities to be a barrier to interacting with patients (19). Pharmacists in the USA pointed out that the main barrier was the lack of time allocated for a given activity (19). Lack of time was identified as a major barrier to most health promotion activities of pharmacists (75%) in a study in Malaysia (19). A study in the city of Irbid (North of Jordan) showed that pharmacists believed that the most significant barrier for them was the need for more training on how to use nicotine gums and patches (86%) (26).

Madurasinghe et al. published the results of a pilot trial evaluating the acceptability and feasibility of smoking cessation interventions in pharmacies and reported that in 2014/2015 almost half of attempts to quit smoking succeeded. This shows that the contribution of pharmacies in helping users quit smoking is great and that the process is feasible (27).

It is interesting that around half of the interviewed pharmacists in our research agree that the tobacco control program should not be implemented in pharmacies, while research conducted in Thailand, Finland, and the USA shows that almost all pharmacists believe that all of them should have an important role in smoking cessation (19). In our research, around 21.7% of respondents from the general public strongly agreed with the opinion that in the pharmacy they regularly receive information about the harm of tobacco smoke and the consequences of consuming tobacco products on the health of the body, and in a similar study in Serbia, even fewer users strongly agree with this opinion (4.2%) (28). In Sweden, 21% of respondents expect pharmacists to participate in smoking cessation education, but 55.7% of the total number of surveyed smokers never received advice from a pharmacist on the topic of quitting smoking (19).

In a study conducted in England that included 2,661 respondents, 7.9% said they visited a pharmacy at least once a week, 10.2% once a fortnight, and 30.7% once a month (29). In our study, as many as 25.8% of respondents visit the pharmacy at least once a week, and 48.9% once a month, which tells us about the importance of health promotion and disease prevention in pharmacies. In Sweden, 36% of pharmacy customers expected information on general health issues from pharmacists, while 80.5% expected information on drugs (19). In our research, 95.8% of the respondents from the general public had positive attitudes towards pharmacists' role in patient education.

The study has certain limitations. Firstly, convenience sampling was used, and therefore the observed attitudes cannot be generalized to the entire population of pharmacy students, general public or pharmacists in Serbia. Although we attempted to replicate the findings in the three populations, they differ significantly in their

characteristics. Additionally, information bias should be considered, because the data were self-reported.

Conclusion

In summary, the opinions of pharmacy students, the general public and pharmacists indicate positive attitudes towards new public health services provided by pharmacists at community pharmacies. Careful consideration is needed to identify and remove the main obstacles, in order to introduce the pilot implementation of these pharmacy services. We found evidence that introducing smoking cessation service as a new public health service was supported the least by the general public and the most by pharmacy students. Future research should be directed towards exploring the educational needs and competences for practising pharmacists to aid them in implementing that type of service in community settings. Findings highlight the need for further research on new public health roles that pharmacists are expected to perform in community settings, with smoking cessation support being one of them.

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Usluga odvikavanja od pušenja u apoteci - stavovi studenata farmacije, farmaceuta i opšte populacije

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Kratak sadržaj

Pušenje je globalni javnozdravstveni problem, a mere kontrole duvana treba da se primenjuju u zajednici tako da značajno smanje broj oboljenja koja su povezana sa pušenjem i troškove zdravstvene zaštite. Javne apoteke su idealna mesta za savetovališta za odvikavanje od pušenja, budući da su najpristupačnije zdravstvene ustanove i imaju direktan kontakt sa pacijentima. Cilj istraživanja bio je da se ispituju stavovi prema implementaciji takvih usluga koristeći upitnike na prikladnom uzorku studenata (N=300), farmaceuta (N=383) i opšte javnosti (N=987) u Republici Srbiji. Uvođenje usluge odvikavanja od pušenja u apotekama podržali su studenti farmacije (59,7%), farmaceuti (49,2%) i opšta javnost (36,7%). Nije pronađena razlika u stavovima farmaceuta u odnosu na pol, starost, stepen obrazovanja i godine iskustva. Farmaceute kao praktičare javnog zdravlja uglavnom su prepoznali studenti (94,3%). Većina njih (86,3%) prepoznala je potrebu za dodatnim obrazovanjem za implementaciju novih usluga, a svaki treći farmaceut prepoznao je nedostatak edukacije kao barijeru za sprovođenje usluge. Ovi podaci ukazuju na potrebu specifičnijih istraživanja kako bi se istražile potrebe za edukacijom i kompetencijama za farmaceute i kako bi im se omogućilo da u budućnosti obavljaju usluge kao što je odvikavanje od pušenja.

Ključne reči: odvikavanje od pušenja, farmaceutske usluge, stavovi, zdravlje
