Stavovi lekara primarne zdravstvene zaštite o istraživanjima u opštoj medicini

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General practitioners' attitudes towards research in general medicine

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Sažetak

Uvod. Opšta medicina je specifična naučna disciplina, a istraživanja su sastavni deo svake naučne discipline.

Cilj rada. Ispitivali smo stavove lekara opšte medicine prema naučnim istraživanjima i razloge za učestvovanje i ne-učestvovanje u njima.

Metod. Za ovo istraživanje sačinjen je poseban upitnik. Dobijeni su podaci o starosti, polu, dužini radnog staža, mestu rada (grad/selo) i specijalnosti: lekar opšte medicine (LOM) i specijalista opšte medicine (SOM), kao i njihovo mišljenje o istraživanjima. Upitnik je novembra 2016. godine poslat na 550 e-mail adresa lekara opšte medicine. Dobijeni podaci su statistički obrađeni paketom *SPSS 20.0 for Windows*.

Rezultati. Upitnik su popunila 233 lekara, od toga 83,3% žena, 67% specijalista OM, 68,7% lekara je iz gradskih ambulanti; prosečna starost ispitanika bila je 46,46±10,29 godina, prosečna dužina staža 17,85±10,99 godina. Da su istraživanja u opštoj medicini potrebna i korisna smatra 67,8% lekara, značajno više specijalista OM ($p=0,000$). U istraživanjima je učestvovalo 71,2% lekara, većinom lekari u gradu ($p=0,008$), lekari stariji od 50 godina ($p=0,000$) i lekari sa stažom >20 godina ($p=0,000$). Lekarima ≤ 30 godina ($p=0,017$) i lekarima sa radnim stažom ≤ 10 godina ($p=0,002$) istraživanja doprinose unapređenju kvaliteta rada. Najčešći razlog za neučestvovanje u istraživanjima bio je nedostatak vremena usled opterećenosti brojem pacijenata i administracijom. Najčešći razlog za učestvovanje lekarima sa stažom od 11 do 20 godina i sa stažom >20 godina bio bi unapređenje kvaliteta rada ($p=0,007$).

Zaključak. Lekari smatraju da su istraživanja u opštoj medicini potrebna i korisna, i da doprinose unapređenju kvaliteta njihovog rada. Najčešći razlog za neučestvovanje u istraživanjima je nedostatak vremena zbog opterećenosti brojem pacijenata i administracijom.

Ključne reči: opšta medicina, istraživanja, stavovi lekara o istraživanjima

Abstract

Introduction: General medicine is a specific scientific discipline and research is a constituting part of each medical discipline.

Objective: We reviewed general physicians' (GPs) attitudes towards scientific research and their reasons for participating or not participating in them.

Method: We made a specific questionnaire for the sake of this research. We got the data on age, gender, service periods, place of work (city/country), and specialty: GP or specialist in general medicine, as well as their opinions on research. We forwarded the questionnaire to 550 physicians' email addresses in November 2016. The acquired data were statistically processed using *SPSS 20.0 for Windows*.

Results: The questionnaire was filled out by 233 physicians, of whom 83,3% were women, 67% specialists in general medicine, 68,7% physicians worked in city clinics; the average age of the participants was 46.46±10.29, the average service period 17.85±10.99 years. Out of the total number, 67.8% of the participants thought research was important and useful, even more so by specialists in general medicine, which was statistically significant ($p=0.000$). There were 71.2% of the physicians who already participated in the research projects, mostly working in the cities ($p=0.008$), physicians older than 50 ($p=0.000$), and physicians with service period >20 years ($p=0.000$). Physicians 30 or younger ($p=0.017$) and physicians with ≤ 10 years of service ($p=0.002$) thought research improved work quality. The most frequent reason for not participating in the research projects was lack of time due to a patient and administration overload. The most frequent reason for participating, for physicians with 11-20 and over 20 years of service, was improving work quality ($p=0.007$).

Conclusion: Physicians think research is necessary and useful in general medicine and it improves work quality. The most frequent reason for not participating in the research projects was lack of time due to a patient and administration overload.

Keywords: general medicine, research, physicians' attitudes on research

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Uvod

Primarna zdravstvena zaštita (PZZ) je temelj svakog efikasnog i visokokvalitetnog zdravstvenog sistema. To je složen, specifičan i sveobuhvatan sistem pružanja zdravstvenih usluga u oblasti unapređenja zdravlja, prevencije bolesti, zbrinjavanja akutnih i hroničnih poremećaja zdravlja. Primarna zdravstvena zaštita se ne bavi samo pojedincem, već i zdravljem u društvenoj zajednici, kao i sociološkim problemima njenih članova, ekološkim i socioekonomskim rizicima¹. Za kvalitetnu PZZ potrebna su i visokokvalitetna istraživanja^{2,3}. Opšta/porodična medicina je akademska i specifična naučna disciplina, a istraživanja su sastavni deo svake naučne discipline. Lekari opšte medicine (LOM) su učestvovali u brojnim istraživanjima, ali se o njihovim stavovima o istraživanjima malo zna. *John Furler* i *Humers-Pradier E* sa saradnicima^{1,4} navode da je i dalje nedovoljno istraživanja u PZZ, iako su od devedesetih godina prošlog veka profesionalne institucije u svetu naglašavale potrebu za organizovanjem istraživanja u opštoj medicini radi poboljšanja zdravlja stanovništva⁵. Istraživanja u opštoj medicini su specifična jer su usmerena na pacijenta u njegovoj socijalnoj sredini⁶. Iz tog razloga, opšta medicina ima svoje specifične potrebe za istraživanjem, a spektar istraživačkih aktivnosti je veoma širok, kako se navodi u nastavnom planu i programu Kraljevskog Australijskog koledža lekara opšte medicine: *opšta praksa i istraživanja PZZ su karika koja nedostaje u razvoju visokokvalitetne zdravstvene zaštite*⁷. Zbog ove specifičnosti, PZZ se ne može oslanjati samo na rezultate i dokaze iz istraživanja specijalističkih disciplina, već mora dobro osmisliti i organizovati svoja istraživanja sa preporukom da se formiraju nacionalne ili, pak, regionalne istraživačke mreže^{1,2,6,8}.

Istraživanja u Sekciji opšte medicine Srpskog lekarskog društva (SLD) imaju dugu tradiciju. Sprovedeno je mnogo studija preseka, interventnih i prospektivnih studija u kojima je učestvovao veliki broj lekara opšte medicine iz cele Srbije. Istraživanja u opštoj medicini su značajna, doprinose porastu njenog ugleda, afirmišu je i popularizuju među lekarima drugih specijalnosti, a doprinose i unapređenju kvaliteta pruženih zdravstvenih usluga pacijentima. Iz rezultata studija se može mnogo naučiti, što doprinosi unapređenju kvaliteta zdravstvene zaštite u opštoj medicini. U poslednjih nekoliko godina smanjen je broj lekara koji učestvuju u ovim istraživanjima, obrazlažući to preopterećenošću na poslu, opterećenošću administracijom, opstrukcijom od strane rukovodilaca u opštoj medicini, direktora i Etičkih odbora. Zbog toga je Naučni odbor Sekcije opšte medicine osmislio istraživanje među lekarima i specijalistima opšte medicine, kako bi se sagledalo kakav stav imaju prema učestvovanju u istraživanjima.

Introduction

Primary health care (PHC) is a foundation of every efficient and high-quality health care system. It's a complex, specific, and all-inclusive system delivering health care services in the areas of health improvement, disease prevention, acute and chronic disease treatment. PHC is not only about the health of an individual but the social community's as well and it is also into sociological problems of its members, ecological, and socio-economic risks.¹ Quality PHC needs high-quality research.^{2,3} General/family medicine is an academic and specific scientific discipline, and research is an integral part of every scientific discipline. General physicians (GPs) participated in numerous researches but little is known about their attitudes on research. *John Furler* and *Humers-Pradier E et al.* say there are still not enough research projects in PHC.^{1,4} Since the 90s, professional institutions have been emphasizing the need for organized research in general medicine in order to improve people's health.⁵ The research in general medicine is specific because it's aimed at a patient in his social surrounding.⁶ Therefore, general medicine has its specific needs for research and the spectrum of research activities is very wide (as mentioned in the curriculum of the Royal Australian College of General Practitioners: *General practice and PHC research are the missing links in the development of high-quality health care*)⁷. Due to this specificity, PHC can't simply lean on the results and evidence of other medical disciplines but it must think through and organize its own research, with a recommendation to found national or regional research networks.^{1,2,6,8}

The research projects of the Section of General Medicine, of the Serbian Medical Society, have got long tradition. There were many cross-sectional, interventional, and prospective studies in which a lot of GPs from all over Serbia took part. The research projects in general medicine are important, they improve its reputation, affirm it and make it more popular among other medical specialists. They also improve the quality of health services. The research results may teach us a lot which can be one of the key factors in improving the quality of care in PHC. Lately, the number of physicians partaking in these research projects is ever decreasing. The physicians explain it with work and administration overload, obstructions by the management and CEOs in general medicine, as well as Ethical boards. Therefore, the Scientific Committee of the Section of General Medicine designed the research project for GPs and specialists in general medicine to review their attitudes towards participating in research projects.

Cilj rada

Cilj rada je bio da se ispita stav lekara opšte medicine prema istraživanjima i razloge za učestvovanje ili neučestvovanje u njima.

Metod

Za ovo istraživanje sačinjen je *upitnik* kako bi se dobili podaci o ispitanicima: starost, pol, dužina radnog staža, mesto rada (grad/selo) i specijalnosti: lekar opšte medicine (LOM) ili specijalista opšte medicine (SOM). Na svako pitanje u vezi sa stavovima lekara o učešću u istraživanjima ponuđeno je više odgovora, uz mogućnost da ispitanici zaokruže istovremeno nekoliko odgovora. Pored ponuđenih odgovora, ispitanicima je pružena mogućnost da navedu i nešto drugo. Upitnik je prvog petka u novembru 2016. godine poslat na 550 *e-mail* adresa lekara u opštoj medicini, koje je Sekcija opšte medicine imala u svojoj bazi podataka. Upitnikom dobijeni podaci su predstavljeni kao frekvencije (%), a Pirsonov (*Pearson*) χ^2 -test je korišćen za merenje razlike između posmatranih kategorija. Korišćen je programski paket *SPSS (Statistical Package for Social Sciences) 20.0 for Windows*. Statistička značajnost je definisana za nivo $p < 0,05$.

Rezultati

Upitnik je elektronskim putem popunilo 42,4% lekara oba pola, od kojih su 83,3% bile žene. Najveći broj lekara je radio u ambulantama u gradu (68,7%), najviše je bilo (67%) specijalista opšte medicine. U odnosu na starosnu strukturu, većinom su bili stariji od 50 godina (42,1%), prosečne starosti $46,46 \pm 10,29$ godina. Najveći broj lekara je imao ≥ 20 godina radnog staža, dok je prosečna dužina staža iznosila $17,85 \pm 10,99$ godina (Tabela 1).

Tabela 1. Sociodemografske karakteristike ispitanika
Table 1. Sociodemographic characteristics of the respondents

Sociodemografske karakteristike ispitanika/Sociodemographic characteristics of the respondents	N	%
Pol/Sex		
Muškarci/Male	39	16,7
Žene/Females	194	83,3
Godine starosti/Age		
≤ 30 godina/years	16	6,9
31-40 godina/years	61	26,2
41-50 godina/years	58	24,9
> 50 godina/years	98	42,1
Radno mesto/Job location		
Grad/City	160	68,7
Selo/Country	73	31,3
Specijalnost/Specialities		
Lekar opšte medicine/ General physician	77	33
Specijalista opšte medicine/General Medicine Specialist	156	67
Dužina radnog staža/Service period		
≤ 10 godina/years	76	32,6
11-20 godina/years	60	25,8
> 20 godina/years	97	41,6

Objective

We aimed at reviewing the general physicians' attitudes towards research projects and their reasons for participating or not participating in them.

Method

For the sake of this research, we designed a *questionnaire* to gather the data on age, gender, service periods, place of work (city/country), and specialty: GP or specialist in general medicine (SGM). Every question had several offered answers, with a possibility to circle several answers, if so desired. Besides offered answers, the participants were able to add their own answers. On the first Friday of November 2016, emails were sent to 550 general physicians from our databas. Gathered data were presented as frequencies (%), and *Pearson's* χ^2 test was used to measure the differences between observed categories. We used program package *SPSS (Statistical Package for Social Sciences) 20.0 for Windows*. Statistical difference was defined for level $p < 0.05$.

Results

The questionnaire was electronically filled out by 42.4% of the physicians of both genders, and out of them 83.3% were women. The majority of the physicians worked in the city clinics (68.7%), and the majority was specialists in general medicine (67%). Regarding their age, the majority was over 50 (42.1%), and the average age was 46.46 ± 10.29 . The majority of the physicians had ≥ 20 years of service, while the average service period was 17.85 ± 10.99 years. (Table 1).

Dve trećine ispitivanih lekara smatra da su istraživanja u opštoj medicini potrebna i korisna (Grafikon 1), a među njima je značajno više specijalista OM nego lekara OM ($p=0,000$), (Tabela 2). Razlika u odgovorima nije bila statistički značajna u odnosu na pol ($p=0,692$), radno mesto ($p=1,000$), godine starosti ispitanika ($p=0,862$) i u odnosu na dužinu radnog staža ($p=0,136$).

Two-thirds of the participants thought the research was needed and useful (Graph. 1), and among them, there were significantly more specialists in general medicine than general physicians ($p=0.000$), (Table 2). The difference in the answers was not statistically significant in regards to gender ($p=0.692$), place of work ($p=1.000$), age ($p=0.862$), and service period ($p=0.136$).

Grafikon 1. Mišljenje ispitivanih lekara o potrebi i korisnosti istraživanja u opštoj medicini
Graph 1. Opinion of the examined physicians on the need and usefulness of research in general medicine

Tabela 2. Mišljenje ispitivanih lekara o potrebi i korisnosti istraživanja u opštoj medicini u odnosu na posmatrane parametre
Table 2. Opinions of the polled physicians on the need and usefulness of research in general medicine, in relation to the observed parameters

Karakteristike ispitanika/ Characteristics of respondents		Odgovori/Answers (%)		p
		Da/Yes	Ne/No	
Pol/Gender				0,692
	Muški/Male	71,8	28,2	
	Ženski/Females	67	33	
Specijalnost/Specialities				0,000
	LOM/GM	49,4	50,6	
	SOM/GMS	78,9	23,1	
Radno mesto/ Job location				1,000
	Grad/City	67,5	32,5	
	Selo/Country	68,5	31,5	
Godine starosti/Age				0,862
	≤ 30 godina/years	66,8	31,3	
	31-40 godina/years	67,2	32,8	

U istraživanjima u opštoj medicini do sada je već učestovalo 71,2% ispitivanih lekara (Grafikon 2), više lekari koji rade u gradu ($p=0,008$), lekari stariji od 50 godina ($p=0,000$) i lekari sa stažom dužim od 20 godina ($p=0,000$) (Tabela 3).

There were 71.2% of the physicians who already participated in the research projects (Graph. 2), mostly working in the cities ($p=0.008$), physicians older than 50 ($p=0.000$), and physicians with service period >20 years ($p=0.000$) (Table 3).

Grafikon 2. Dosadašnje učešće ispitivanih lekara u istraživanjima u opštoj medicini
Graph. 2. Present participation of the participating physicians in research projects in general medicine

Tabela 3. Dosadašnje učešće ispitivanih lekara u istraživanjima u odnosu na posmatrane parametre
Table 3. Present participation of the participating physicians in research projects in regards to the observed parameters

Karakteristike ispitanika/ Characteristics of respondents		Odgovori/Answers (%)		p
		Da/Yes	Ne/No	
Pol/Gender				0,912
	Muški/Male	69,2	30,8	
	Ženski/Females	71,6	28,4	
Specijalnost/Specialities				0,153
	LOM/GM	77,9	22,1	
	SOM/GMS	67,9	32,1	
Radno mesto/Job location				0,008
	Grad/City	76,9*	23,1	
	Selo/Country	58,9	41,1	
Godine starosti/Age				0,000
	≤ 30 godina/years	37,5	62,5	
	31-40 godina/years	57,4	42,6	
	41 -50 godina/years	72,4	27,6	
	> 50 godina/years	84,7*	15,3	
Dužina radnog staža/ Service period				0,000
	≤ 10 godina/years	59,2	40,8	
	11-20 godina/years	61,7	38,3	
	> 20 godina/years	86,6*	13,4	

*Statistička značajnost/Statistical significance $p<0,05$

Većina ispitivanih lekara smatra da je najveća korist od istraživanja što se rezultati mogu primeniti u svakodnevnom radu u cilju unapređenja kvaliteta pružene zdravstvene zaštite pacijentima (38,1%), a nešto više od trećine se opredelilo istovremeno za prva tri odgovora (Tabela 4).

The majority of the participants thought the greatest achievement of the research projects was that the results could be used in everyday practice in order to improve the quality of health care (38.1%). A bit more than a third of the participants circled simultaneously the first three answers (Table 4).

Tabela 4. Mišljenje lekara o koristima koje mogu imati od istraživanja u opštoj medicini
Table 4. Physicians' opinions on their benefits from research projects in general medicine

Odgovori/Answers	%
1. Porast ugleda lekara/Reputation growth	3,5
2. Porast ugleda opšte medicine/The rise of the reputation of general medicine	5,2
3. Rezultati se mogu primeniti u radu/The results can be applied in the work	38,1
4. Nema koristi/There is no use	0,9
5. Nešto drugo/Something else	2,2
Odgovori/Answers /1, 3	8,7
Odgovori/Answers 1,2, 3	35,1
Ostalo/Other*	6,3

*Ostalo/Other: Ostale kombinacije odgovora/ Other combinations of answers

U dobijenim odgovorima nema statistički značajne razlike u odnosu na pol ($p=0,777$) i specijalnost lekara ($p=0,340$) (Tabela 5). Za lekare u gradu najznačajnija korist je porast ugleda OM kao akademske discipline, ugleda lekara OM i specijalista OM, i što se rezultati istraživanja mogu primeniti u svakodnevnom radu ($p=0,008$).

There was no statistically significant difference in regards to gender ($p=0.777$) and specialty ($p=0.340$) (Tabel 5). For the physicians working in the cities, the greatest benefits of the research were General Medicine's reputation growth, as an academic discipline, the prestige of GPs and SGMs, and the results of the research could be applied in everyday practice ($p=0.008$).

Tabela 5. Mišljenje lekara o koristima koje mogu imati od istraživanja u odnosu na posmatrane parametre
Table 5. Physicians' opinions on research benefits in regards to the observed parameters

Karakteristike ispitanika/ Characteristics of respondents		Odgovori/Answers (%)								p
		1	2	3	4	5	1 i 3	1, 2 i 3	Ostalo/Other	
Pol/Gender										$p=0,777$
	Muški/Male	5,1	10,3	35,9		2,6	10,3	28,2	7,6	
	Ženski/Females	3,1	4,2	38,5	1	2,1	8,3	36,5	6,1	
Specijalnost/Specialities										$p=0,340$
	LOM/GM	2,6	2,6	43,3	5,3		7,9	32,9	7,8	
	SOM/GMS	3,9	6,5	35,5		3,2	9	36,1	5,7	
Radno mesto/Job location										$p=0,008$
	Grad/City	3,8	6,3	34,2		2,5	5,1	41,8*	6,3	
	Selo/Country	2,7	2,7	46,2	2,7	1,4	16,4	20,5	7	
Godine starosti/Age										$p=0,017$
	≤ 30 godina/years			68,8*			18,6	6,3	6,3	
	31-40 godina/years	3,3	8,2	49,2			8,2	27,9	3,2	
	41 -50 godina/years	3,5	7	35,1	3,5	3,6	12,3	31,6	3,4	
	> 50 godina/years	4,1	3,1	27,8		3,1	5,2	46,4	10,3	
Dužina radnog staža/ Service period										$p=0,002$
	≤ 10 godina/years	2,6	2,6	59,2*	1,3		10,5	19,7	4,1	
	11-20 godina/years	3,4	10,2	27,1		1,7	11,9	42,4	3,3	
	> 20 godina/years	4,2	4,2	28,1	1	4,1	5,2	42,7	10,4	

*Sstatistička značajnost/Statistical significance $p<0,05$
 Ostalo/Other: Ostale kombinacije odgovora/ Other combinations of answers

Upitnikom su dobijeni i odgovori o razlozima zbog kojih lekari nisu do sada učestvovali u istraživanjima. Najčešći razlog je bio nedostatak vremena zbog velike opterećenosti na poslu administracijom (16,4%), a 13,5% lekara je navelo dva razloga: velika opterećenost i brojem pacijenata i administracijom (Grafikon 3). Pored ponuđenih odgovora, navodili su i neke druge razloge: niko im nije predložio učešće u istraživanju, ne znaju kako da se uključe u takva istraživanja, ne veruju da će to bilo šta promeniti, postojanje opstrukcije od strane menadžmenta ustanove u kojoj rade i neposrednih rukovodilaca, porodične obaveze i želja da slobodno vreme posvete drugim stvarima. Veliki broj ponuđenih odgovora i mogućnost opredeljenja istovremeno za više odgovora, uslovalo je znatan broj različitih kombinacija odgovora (33,9%). U 53,4% tih kombinacija odgovora, jedan je bio i da im učešće u tim istraživanjima ne donosi novčanu nadoknadu (Tabela 6).

The questionnaire gave us the answers to the reasons why some physicians didn't participate in the research projects. The most common reason was the lack of time due to work and administration overload (16.4%), and 13.5% of the physicians also mentioned these two reasons: patient and administration overload (Graph. 3). Besides offered answers, some physicians stated their own reasons: no one ever offered them to participate in the research project, they didn't know how to join the research, some didn't believe the research would change anything, some said there were obstructions by their clinic managers, some said they had family obligations and also wanted to devote their leisure time to some other things. A lot of offered answers and the possibility to circle simultaneously several answers produced a lot of answers combinations (33.9%). In 53.4% of these combinations, one of the answers was there was no financial reward for their participation (Table 6).

Ostalo/Other: Ostale kombinacije odgovora/ Other combinations of answers

Odgovori/Answers

1. Nemam vremena zbog opterećenosti velikim brojem pacijenata
I have no spare time due to patient overload.
2. Nemam vremena zbog velike opterećenosti administracijom
I have no spare time due to administration overload.
3. Nepremostiv je jaz između istraživanja i praktičnog rada
Dividing gulf between research and practice.
4. Učešće u istraživanjima ne donosi mi novčanu korist
There's no financial reward in participating in research projects.
5. Istraživanja doprinose samo afirmaciji onih koji organizuju istraživanje
Research affirms only those who organize research projects.
6. Opstrukcija od strane nadležnih (Etički odbori, direktor, neposredni rukovodioci...)
Obstruction by the management team (Ethical Boards, CEOs, superiors...)
7. Nešto drugo (Molimo Vas da navedete šta)
Something else (Please, state your answer)

Grafikon 3. Razlozi ispitanika za neučestvovanje u istraživanjima u opštoj medicini
Graph. 3. Participants' reasons for not participating in research projects in general medicine

Tabela 6. Razlozi ispitanika za neučestvovanje u istraživanjima u opštoj medicini
Table 6. Participants' reasons for not participating in research projects in general medicine

Odgovori/Answers	N	%
1 do 7	83	48,5
1 i 2	23	13,5
2, 3 i 5	7	4,1
Ostale kombinacije odgovora/Other combinations of answers	58	33,9
Kombinacije sa odgovorom 4/ Combinations with answer 4	31 (od 58)/31 (of 58)	53,4 (od 33,9)/53,4 (of 33,9)
Ukupno/Total	171	100

Odgovori/Answers

1. Nemam vremena zbog opterećenosti velikim brojem pacijenata
I have no spare time due to patient overload.
2. Nemam vremena zbog velike opterećenosti administracijom
I have no spare time due to administration overload.
3. Nepremostiv je jaz između istraživanja i praktičnog rada
Dividing gulf between research and practice.
4. Učešće u istraživanjima ne donosi mi novčanu korist
There's no financial reward in participating in research projects.
5. Istraživanja doprinose samo afirmaciji onih koji organizuju istraživanje
Research affirms only those who organize research projects.
6. Opstrukcija od strane nadležnih (Etički odbori, direktor, neposredni rukovodioci...)
Obstruction by the management team (Ethical Boards, CEOs, superiors...)
7. Nešto drugo (Molimo Vas da navedete šta)
Something else (Please, state your answer)

U odgovorima nema statistički značajne razlike u odnosu na posmatrane parametre ($p=0,137$) (Tabela 7). Lekari opšte medicine, u odnosu na specijaliste opšte medicine, češće kao razlog navode nepremostiv jaz između istraživanja i praktičnog rada, a od nekih drugih razloga: odabir ispitanika, reprezentativnost uzorka, socioekonomsko-demografske karakteristike ispitanika ($p=0,030$). Lekari u gradu su, češće od onih na selu, navodili neke druge razloge kojih nije bilo među ponuđenim odgovorima ($p=0,048$). U odnosu na starost ispitanika, lekari stariji od 50 godina su daleko manje kao razlog neučestvovanja navodili opterećenost administracijom, dok su lekari u starosnom dobu od 41 do 50 godina mnogo češće, u odnosu na druge, navodili istovremeno tri razloga: nedostatak vremena zbog velike opterećenosti administracijom, nepremostiv jaz između istraživanja i praktičnog rada i da istraživanja doprinose samo afirmaciji onih koji organizuju ta istraživanja, a lekari opšte medicine služe samo za prikupljanje podataka za istraživanje ($p=0,007$). Lekari, pak, sa radnim stažom dužim od 20 godina češće su kao razlog neučestvovanja u istraživanjima navodili nedostatak vremena zbog opterećenosti velikim brojem pacijenata ($p=0,016$).

There was no statistically significant difference in answers in regards to observed parameters ($p=0.137$) (Table 7). General physicians, unlike specialists in general medicine, more frequently quote the dividing gulf between research and practice. Other mentioned reasons are the choice of the participants, sample representation, socio-economic-demographic characteristics of the participants ($p=0.030$). Physicians working in the cities, unlike those working in the country, quoted other reasons that were not among offered answers ($p=0.048$) more often. In regards to participants' age, physicians over 50 mentioned administration overload far less as a reason for not participating in the research projects. Physicians aged 41-50 mentioned these three reasons simultaneously much more than other colleagues: lack of time due to administration overload, dividing gulf between research and practice, the research affirms only those who organize it, and general physicians are there only to gather the research data ($p=0.007$). Physicians with over 20 years of service more frequently mentioned patient overload, as the reason for not participating ($p=0.016$).

Tabela 7. Razlozi ispitanika za neučestvovanje u istraživanjima u opštoj medicini u odnosu na posmatrane parametre
Table 7. Participants' reasons for not participating in research projects in general medicine in regards to observed parameters

Karakteristike ispitanika/ Characteristics of respondents	Odgovori/Answers (%)										P
	1	2	3	4	5	6	7	1, 2	2, 3, 5	Druge komb. Other comb.	
Pol/Gender											0,137
Muški/Male	3,7	22,2	11,1	7,4			7,4	11,1		37,4	
Ženski/Females	9,0	15,3	5,6	1,4	4,9	1,4	10,4	13,9	4,9	33,2	
Specijalnost/Specialities											0,030
LOM/GM	5,0	11,7	10,0*	1,7	3,3		10,0	18,3		40,0	
SOM/GMS	9,9	18,9	4,5	2,7	4,5	1,8	9,9	10,8	6,3	30,7	
Radno mesto/Job location											0,048
Grad/City	9,1	15,7	5,8	1,7	4,1	0,8	12,4*	14,9	0,8	34,7	
Selo/Country	6,0	18,0	8,0	4,0	4,0	2,0	4,0	10,0	12,0	32,0	
Godine starosti/Age											0,007
≤ 30 godina/years		27,3	9,1				9,1	9,1		45,4	
31 - 40 godina/years	6,7	20,0	4,4	4,4	4,4		15,6	11,1	2,2	31,2	
41 - 50 godina/years	5,0	27,5	12,5				5,0	15,0	12,5*	22,5	
> 50 godina/years	12,0	6,7*	4,0	2,7	6,7	2,7	9,3	14,7	1,3	39,9	
Dužina radnog staža/Service period											0,016
≤ 10 godina/years	3,6	17,9	5,4	3,6	3,6		14,3	12,5	3,6	35,5	
11 - 20 godina/years	4,8	26,2	9,5				7,1	14,3	9,5	28,6	
> 20 godina/years	13,7*	9,6	5,5	2,7	6,8	2,7	8,2	13,7	1,4	35,7	

*Sstatistička značajnost/Statistical significance $p < 0,05$
 Ostalo/Other: Ostale kombinacije odgovora/ Other combinations of answers

Odgovori/Answers

- Nemam vremena zbog opterećenosti velikim brojem pacijenata
I have no spare time due to patient overload.
- Nemam vremena zbog velike opterećenosti administracijom
I have no spare time due to administration overload.
- Nepremostiv je jaz između istraživanja i praktičnog rada
Dividing gulf between research and practice.
- Učešće u istraživanjima ne donosi mi novčanu korist
There's no financial reward in participating in research projects.
- Istraživanja doprinose samo afirmaciji onih koji organizuju istraživanje
Research affirms only those who organize research projects.
- Opstrukcija od strane nadležnih (Etički odbori, direktor, neposredni rukovodioci...)
Obstruction by the management team (Ethical Boards, CEOs, superiors...)
- Nešto drugo (Molimo Vas da navedete šta)
Something else (Please, state your answer)

Za najveći broj lekara, najčešći razlog za učestvovanje bio bi da rezultati istraživanja, primenjeni u svakodnevnom radu, mogu da doprinesu unapređenju kvaliteta njihovog rada (Grafikon 4). Ovde je, takođe, veliki broj ponuđenih odgovora uslovio veliki broj kombinacija odgovora.

For the majority of the physicians, the main reason to participate in the research would be the results applicable in everyday practice and the results which would improve work quality (Graph. 4). A large number of offered answers induced many answers combinations.

Ostalo/Other: Ostale kombinacije odgovora/ Other combinations of answers

Odgovori/Answers

1. Rezultati istraživanja su merilo kvaliteta rada
Research results are a measure of quality.
2. Rezultati istraživanja doprinose unapređenju kvaliteta rada
Research results improve work quality.
3. Dobijeni rezultati u istraživanju omogućuju poređenje sa rezultatima sličnih istraživanja u drugim sredinama i zemljama
Research results enable comparison with research results from similar research projects in other environments and countries.
4. Učešće u istraživanju omogućuje publikovanje (autor ili koautor) stručnih radova
Participating in the research enables publication (author or co-author) of the scientific paper.
5. Lična afirmacija / Personal affirmation
6. Ako bi mi pribavilo materijalnu korist / If I would gain financial support
7. Nešto drugo (Molimo Vas da navedete šta) / Something else (Please, state your opinion)

Grafikon 4. Razlozi koji bi opredelili lekare da učestvuju u istraživanjima u opštoj medicini

Graph 4. Reasons that would make physicians participate in research projects in general medicine

U odgovorima nije bilo statistički značajne razlike u odnosu na pol, starost, specijalnost i radno mesto lekara, ali je razlika visokoznačajna u odnosu na dužinu njihovog radnog staža. Lekari sa radnim stažom od 11 do 20 godina, značajno češće nego drugi kao razlog za učestvovanje navodili su materijalnu korist, a lekari sa stažom dužim od 20 godina učestvovali bi u istraživanjima jer rezultati istraživanja mogu da potvrde ili unaprede kvalitet njihovog rada i omogućili bi im da se porede sa rezultatima sličnih istraživanja u svetu ($p=0,007$) (Tabela 8).

There was no statistically significant difference in answers in regards to age, gender, specialty, and place of work, but there was a highly significant difference in regards to physicians' service period. Physicians with service period from 11-20 years more often than others mentioned material gain. Physicians with over 20 years of service would participate in the research because its results could confirm or improve their work quality and enable them to compare them with the results from similar researches in the world ($p=0.007$) (Table 8).

Tabela 8. Razlozi koji bi opredelili lekare da učestvuju u istraživanjima u opštoj medicini u odnosu na posmatrane parametre
Table 8. Reasons that would determine doctors to participate in research in general medicine in relation to the observed parameters

Karakteristike ispitanika/ Participants' characteristics	Odgovori/Answers (%)															p
	1	2	3	4	5	6	7	1, 2	2, 3,	1, 2, 3	2, 3, 4	1, 2, 3, 4	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6	Oostalo/ Other	
Pol/Gender																0,220
Muški/Male	2,9	17,1	11,4		8,6	5,7	2,9	5,7	2,9	8,6	8,6			5,7	19,9	
Ženski/Females	2,7	19,8	5,7	0,5	4,3	3,2		6,4	7,0	6,4	4,3	7,5	7,5	8,0	16,5	
Specijalnost/ Specialities																0,365
LOM/GM	4,1	19,2	8,2	1,4		5,5		5,5	5,5	11,0	5,5	4,1	8,2	4,1	17,7	
SOM/GMS	2,0	19,5	6,0	6,7	0,7	2,7	0,7	6,7	6,7	4,7	4,7	7,4	5,4	9,4	16,7	
Radno ometsto/ Job location																0,271
Grad/City	2,5	20,4	5,1	4,5	0,6	3,8	0,6	4,5	4,5	7,0	6,4	8,9	7,6	7,0	16,6	
Selo/Country	3,1	16,9	10,8	6,2		3,1		10,8	10,8	6,2	1,5		3,1	9,2	18,3	
Godine starosti/ Age																0,252
≤ 30 godina/years		21,4	7,1					21,4	7,1		7,1		7,1		28,8	
31 - 40 godina/years	1,7	24,1	6,9	5,2		1,7		6,9	10,3	5,2		3,4	3,4	3,4	27,8	
41 - 50 godina/years	1,8	21,4	5,4	10,7	1,8	5,4		3,6	8,9	1,8		5,4	10,7	8,9	14,2	
> 50 godina/years	4,3	14,9	7,4	2,1		4,3	1,1	5,3	2,1	11,7	1,1	9,6	5,3	10,6	20,2	
Dužina radnog staža/ Service period																0,007
≤ 10 godina/years	1,4	22,9	8,6	4,3		1,4		10,0	7,1	4,3	7,1	2,9	7,1	2,9	20,0	
11 - 20 godina/years		19,0	5,2	10,3	1,7	10,3*		3,4	10,3	1,7	8,6	5,2	5,2	6,9	12,2	
> 20 godina/years	5,3*	17,0	6,4	2,1		1,1	1,1	5,3	3,2	11,7*	1,1	9,6	6,4	11,7	18,0	

* Statistička značajnost/Statistical significance p<0.05

Ostalo/Other: Ostale kombinacije odgovora/Other combinations of answers

Odgovori/Answers

- Rezultati istraživanja su merilo kvaliteta rada
Research results are a measure of quality.
- Rezultati istraživanja doprinose unapređenju kvaliteta rada
Research results improve work quality.
- Dobijeni rezultati u istraživanju omogućuju poređenje sa rezultatima sličnih istraživanja u drugim sredinama i zemljama
Research results enable comparison with research results from similar research projects in other environments and countries.
- Učešće u istraživanju omogućuje publikovanje (autor ili koautor) stručnih radova
Participating in the research enables publication (author or co-author) of the scientific paper.
- Lična afirmacija
Personal affirmation
- Ako bi mi pribavilo materijalnu korist
If I would gain financial support
- Nešto drugo (Molimo Vas da navedete šta)
Something else (Please, state your opinion)

Diskusija

U našem istraživanju upitnik je popunilo 46,6% lekara. Procenat odgovora o motivacijama i spremnosti lekara opšte medicine da učestvuju u istraživanjima veoma je različit. U istraživanju *Hummers–Pradiera* i saradnika⁴ iznosio je 37%, a nešto više od nas u istraživanju *Peters–Klimma* i saradnika⁹ 50,7%. U velikom istraživanju u Štajerskoj¹⁰ iznosio je tek 14%, a u istraživanju u Francuskoj 63% lekara opšte medicine odazvalo se da učestvuje u ovakvom istraživanju⁸.

Dve trećine lekara u ovom istraživanju smatra da su istraživanja u opštoj medicini potrebna i korisna, dok u istraživanju *Hummers–Pradiera* i saradnika čak 91,7% lekara opšte medicine u Nemačkoj smatra da su ovakva istraživanja važna i korisna¹¹. *John W. Beasley* i saradnici¹² u svom radu ističu da su istraživanja u PZZ od suštinskog značaja za razvoj boljih zdravstvenih sistema i zdravstvenih politika, da lekari opšte medicine moraju biti sastavni deo istraživačkih projekata, jer će pristup PZZ zasnovan na dokazima postati pravilo. Ipak, kako se navodi u nekim radovima, istraživanja u PZZ su i dalje nedovoljna^{1,4,13}, a veliki broj istraživača je pokazao da je neophodno i usavršavanje lekara PZZ za njihovo uključivanje kao istraživača^{4,5,7,14,15}. Istraživanje *Lire H.* i saradnika u Finskoj pratilo je opredeljivanje lekara za učestvovanje u istraživanjima nakon završenih obrazovnih jednogodišnjih, višestepenih kurseva o istraživanjima. Na kursovima su naučili da kritički razmišljaju, stekli su osnovna znanja o istraživanjima, a dobili su i inspiraciju da se uključe u istraživanja⁶.

Među ispitivanim lekarima njih 71,2% je do sada već učestvovalo u istraživanjima u opštoj medicini, nešto je više osoba ženskog pola, kao i lekara opšte medicine u odnosu na specijaliste opšte medicine. U istraživanjima su više učestvovali lekari koji rade u gradu, lekari stariji od 50 godina i lekari sa stažom dužim od 20 godina. *Frank Sullivan* i saradnici¹⁶ u svom radu navode da dve trećine lekara PZZ u Škotskoj aktivno učestvuje u istraživačkim projektima, a svake godine se sprovede 50-60 studija. Nasuprot njima, u istraživanju *I. Supper* i saradnika⁸, navodi se da je samo 29,2% ispitivanih lekara opšte medicine u Francuskoj do sada učestvovalo u istraživanjima, i da bi isto toliko (29,9%) bilo spremno da prihvati učešće u istraživanjima.

U istraživanju *Tawo S.* i saradnika¹⁷ 43% lekara je želelo da učestvuje u istraživanjima, češće su to bili muškarci mlađi od 40 godina i koji rade u ambulantama u urbanim sredinama. I u istraživanju sprovedenom u Štajerskoj 2017. godine od strane *Stephanie Poggenburg*¹⁰ i *Peters–Klimma*⁹ i saradnika u Nemačkoj 2013. godine, žene su manje zainteresovane za učešće u istraživanjima od muškaraca. U istraživanju sprovedenom u Štajerskoj, u odnosu na lokaciju radnog mesta, za istraživanja kao istraživači više su zainteresovani lekari koji rade u ruralnim područjima¹⁰.

Većina ispitivanih lekara u ovom istraživanju smatra da je najveća korist od istraživanja da se rezultati mogu

Discussion

There were 46.6% of the physicians who filled out the questionnaire. The percentages of motivation and readiness to participate in the research projects hugely vary. In the research of *Hummers–Pradiera et al.*⁴ this percentage was 37%, and in *Peters–Klimma et al.*⁹ study it was 50.7%. In the big research in Styria, this percentage was 14%¹⁰, and in France 63% of general physicians responded to the research⁸.

Two-thirds of the physicians in our study think research projects in general medicine are necessary and useful, while the study of *Hummers–Pradiera et al.* finds this percentage to be 91.7% among German general physicians¹¹. *John W. Beasley et al.* emphasize in their work the research in PHC is of essential importance for the development of better healthcare systems and health politics. General physicians must be an integral part of the research projects because an evidence-based PHC approach will soon become a rule.¹² Nevertheless, as quoted in some studies, PHC research projects are still insufficient^{1,4,13}, and a huge number of researchers plainly showed it's necessary to educate GPs in order to involve them in the research projects^{4,5,7,14,15}. The study of *Lire H. et al.* in Finland, followed the physicians opting to participate in the research projects after finishing a year-long multilevel course in research. The course taught them critical thinking, they gained basic knowledge in research, and were also inspired to join the research projects⁶.

Among our participants, 71.2% of our participants have already participated in research projects in general medicine. There were more female physicians, and general physicians as compared to specialists in general practice. Physicians working in the cities, physicians over 50, and physicians with over 20 years of service more often participated in the research projects. *Frank Sullivan et al.* indicated two-thirds of the Scottish physicians actively participated in the research projects, and there were 50-60 of them each year¹⁶. The research of *I. Supper et al.* showed only 29.2% of the polled general physicians in France participated in the research projects, but just as many would be ready to accept to participate in some research⁸.

The study of *Tawo S. et al.* showed 43% of the physicians would like to participate in the research projects, and more often those were males younger than 40 and working in the city clinics.¹⁷ In the Styer's study in 2017, by *Stephanie Poggenburg*¹⁰, and *Peters–Klimma*⁹, et al.'s study in Germany in 2013 it was shown women were less interested in participating in the research than men. In regards to job location, physicians working in the country were more interested to do the research, the Styer study showed¹⁰.

The majority of the polled physicians in our research consider its greatest benefit the results that could be used in everyday practice. More than a third chose three answers simultaneously: general physicians' reputation improvement,

primeniti u svakodnevnom radu. Nešto više od trećine se opredelilo istovremeno za tri odgovora: porast ugleda lekara opšte medicine, porast ugleda same opšte medicine i što se rezultati istraživanja mogu primeniti u svakodnevnom radu u cilju unapređenja kvaliteta pruženih zdravstvenih usluga. U nizu istraživanja lekari opšte medicine smatraju da ona mogu doprineti unapređenju kvaliteta pružene zdravstvene zaštite pacijentima^{2,5,7,10,12,18-20}. Svetska zdravstvena organizacija - WHO (*World Health Organisation*) je tokom poslednje decenije 20. veka istakla značaj i važnu ulogu PZZ za unapređenje zdravlja stanovništva¹⁹. Svetska organizacija lekara opšte medicine - WONCA (*World Organization of Family Doctors*) je još 2003. godine organizovala u Ontariju, Kanada pozivnu konferenciju o budućnosti istraživanja PZZ, želeći da ukaže na neophodnost istraživanja u opštoj/porodičnoj medicini, što doprinosi unapređenju kvaliteta pruženih zdravstvenih usluga²⁰.

Upitnikom su dobijeni i podaci o razlozima zbog kojih lekari nisu do sada učestvovali u istraživanjima u opštoj medicini. Najčešći razlog za neučestvovanje je bio nedostatak vremena zbog velike opterećenosti poslom i administracijom, što se poklapa sa rezultatima drugih istraživača^{5,10,17,18,21-24}. U istraživanju *Hummers-Pradiera* i saradnika¹¹, 56% ispitanika je izjavilo da ne bi prihvatili da učestvuju u istraživanjima, a kao razloge navode: protive se da se podaci iz njihovih elektronskih baza podataka o pacijentima koriste za istraživanja, da postoji mogućnost zloupotrebe podataka, da imaju malo uticaja u procesu istraživanja, a pojedinci da ne učestvuju iz principa. Kao prepreke za učešće u istraživanjima pojedini lekari navode da se klinička istraživanja uglavnom sprovode među hospitalizovanim pacijentima²¹, da se istraživanja u PZZ smatraju manje vrednim¹ a da je uloga lekara opšte medicine samo u prikupljanju podataka⁵, da se učešće u istraživanjima neadekvatno vrednuje^{5,15}, da nije obezbeđeno vreme za bavljenje istraživanjima, te da se gube pacijenti⁴. Smatra se da je nepremostiv jaz između istraživanja i prakse⁵ i da ne veruju u korisnost istraživanja²². Pored ponuđenih odgovora, ispitanici u našem istraživanju su navodili i neke druge razloge: nikad im nije predloženo učešće u istraživanju, ne znaju kako da se uključe u takva istraživanja, ne veruju da će to bilo šta promeniti, da postoji opstrukcija od strane menadžmenta ustanove u kojoj rade, porodične obaveze, a i želja da slobodno vreme posvete drugim stvarima. Veliki broj ponuđenih odgovora i mogućnost opredeljenja za istovremeno više odgovora uslovlilo je veliki broj kombinacija odgovora, a kod više od polovine navedeno je i da im učešće u tim istraživanjima ne donosi nikakvu materijalnu korist. U istraživanjima među lekarima opšte medicine u Štajerskoj¹⁰, Velikoj Britaniji¹⁸ i Nemačkoj²⁴ takođe se navodi da bi finansijske nadoknade za učešće u istraživanjima povećale učešće lekara.

Za najveći broj lekara u ovom istraživanju najčešći razlog za učestvovanje bio bi da rezultati istraživanja mogu da doprinesu unapređenju kvaliteta njihovog rada. Rezulta-

general medicine's reputation improvement, and the fact that the research results might be applied in everyday practice to improve healthcare services. Many studies showed general physicians believe the research projects might improve the quality of healthcare services^{2,5,7,10,12,18-20}. WHO (*World Health Organisation*) pointed out in the last decade of the 20th century the importance of PHC in the improvement of people's health. WONCA (*World Organization of Family Doctors*) organized a conference in Ontario, Canada in 2003 on the future of research in PHC, wanting to point out the necessity of the research in general/family medicine which would improve the healthcare service quality.¹⁹

The questionnaire gathered the data on why some physicians didn't participate in the research projects in general medicine up till now. The most frequent reason was the lack of time due to work and administration overload which was consistent with the findings of other researchers^{5,10,17,18,21-24}. *Hummers-Pradiera et al.*'s¹¹ research showed 56% of the participants said they wouldn't accept participating in the research, and their reasons were: they were against the use of EHC (electronic health records) data of their patients, there was a possibility of data abuse, they had little influence on the research process, and some said it was just their principle. Some physicians pointed out these obstacles: clinical trials were mostly done on hospitalized patients²¹, PHC research projects were considered less valuable¹ and the only role of GP was to gather the data⁵, research participation was inadequately valued^{5,15} there was no affiliated time for the research and it would lead to losing patients⁴. It's a general belief there is a dividing gulf between research and practice⁵ and they don't believe in the usefulness of the research²². Besides offered answers, the participants in our research pointed out some other reasons: they were never offered to participate in the research, they didn't know how to join the research, they didn't believe it would change anything, there was obstruction by the management team, family obligations, and the desire to devote their leisure time to something else. A large number of offered answers and the possibility to opt for several answers simultaneously led to a large number of answer combinations. More than half of the participants said there was no material gain in it for them. The research among general physicians in Styer¹⁰, Great Britain¹⁸, and Germany²⁴ also showed that financial gain would lead to a higher number of the participants.

For the majority of the physicians in our research, the most frequent reason for them to participate would be the research results that would improve their work quality. The research results would enable them to compare the results with the results from similar studies, which was the highest motivation for the physicians in Sweden¹⁰, Germany²⁴, and Ireland². For the general physicians from the Canton of Lucerne, Switzerland¹⁷ very important motive was the choice of theme. The theme was very important for their work, as well

ti istraživanju omogućili bi im da se porede sa rezultatima sličnih istraživanja, što je i najvažnija motivacija lekarima u Štajerskoj¹⁰, Nemačkoj²⁴ i Irskoj². Za lekare opšte medicine u kantonu Lucern u Švajcarskoj¹⁷, veoma značajan motiv za učestvovanje u istraživanjima je - odabir teme. Tema je od velike važnosti za njihov rad, kao i da im učešće u istraživanju ne oduzima puno vremena, a manje su im značajni stalna obuka o istraživanjima i novčana nadoknada. U nizu sličnih istraživanja lekari opšte medicine su, takođe, kao vodeći motiv za učestvovanje u istraživanjima naveli da istraživačka pitanja budu značajna za svakodnevni rad u opštoj medicini^{3,9,18,19}. Lekari u istraživanju *J. Furlera* i saradnika¹ smatraju da istraživanja moraju da dobiju podršku rukovodilaca PZZ kako bi se osigurala njihova održivost, da su problemi raznovrsni i veoma složeni i da je potencijal za istraživanja u PZZ veliki. Učešće u istraživanju lekari vide i kao priliku za sticanje akademskih zvanja¹ i mogućnost da učestvuju u objavljivanju rezultata istraživanja^{6,18}.

Zaključak

U ovom istraživanju lekari smatraju da su istraživanja u opštoj medicini potrebna i korisna. Većina lekara smatra da je najveća korist od istraživanja što se rezultati tih istraživanja mogu primeniti u svakodnevnom radu, u cilju unapređenja kvaliteta pružene zdravstvene zaštite. U istraživanjima su do sada više učestvovali lekari koji rade u gradu, lekari stariji od 50 godina i lekari sa stažom dužim od 20 godina.

Najčešći razlog za neučestvovanje u istraživanjima je nedostatak vremena zbog velike opterećenosti kliničkim radom i administracijom, a najčešći razlog za učestvovanje bio bi da rezultati istraživanja mogu da doprinesu unapređenju kvaliteta njihovog rada.

as not occupying a great deal of their time, and continuous education on research and financial gain were of less importance. In a plethora of similar research projects general physicians also mentioned the research questions of importance for their everyday work in general medicine as highly motivating^{3,9,18,19}. The physicians from the study of *J. Furlera et al.*¹ thought the research projects should be supported by PHC management to ensure their sustainability. The problems are diverse and very complex but the research potential in PHC is huge. An opportunity to participate in research projects some physicians see as a chance to gain an academic title¹ and the possibility to participate in research results publishing^{6,18}.

Conclusion

Our research showed general physicians considered research projects in general medicine necessary and useful. The majority of the physicians find the possibility of applying the research results into their practice as the most useful benefit which would consequently lead to improvement of healthcare services. Physicians working in the cities, physicians over 50, and physicians with over 20 years of service participated in the research projects more frequently.

The most frequent reason for not participating in the research projects was work and administration overload. The most frequent reason for participating was the research results which could improve their work quality.

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