



A field research on the management of sustainable in-service training of physicians serving primary health care

Osman Silaci^{ID(a)}, Yeter Demir Uslu^{ID(b)}



^(a)Responsible Manager, Medical Implementation and Research Center, Fındıkzade, Istanbul Medipol University, Istanbul, Turkey

^(c)Prof. Dr., Healthcare Management, Medipol University, Medical Science Faculty, Istanbul Medipol University, Istanbul, Turkey.

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ABSTRACT

This study reviews the management of the in-service training that could contribute to the professional and personal development of the physicians providing primary health care at their post-graduate period. The field study aims to detect the importance and necessity of the in-service training, which is known to provide professional and personal development after graduation at every field of profession, in health sector and the approaches of the physicians who provide primary health care on the issue. During the application process, a field study was conducted through an online survey with the participation of 4,034 primary care physicians working in Istanbul. 610 people participated validly in the study. The opinions, evaluations and expectations of the physicians about in-service training were measured. In addition, it was tried to determine the knowledge and skill levels of the physicians on these issues by determining the in-service training subjects that physicians deemed necessary for their professional and personal development. The study has three remarkable results. The first result is that physicians care about the in-service trainings be given in 1-2 hours courses, at least once a month, in a comfortable place such as a hotel and especially with practical methods. The second important result is that the number of physicians who believe that the training should be given by universities and that the trainings this way will contribute to professional and personal development constitute the majority. The third result emphasizes that even if the physicians participating in the study find their knowledge and skill levels about preventive healthcare and chronic diseases sufficient, they want to receive more education in this field.

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Introduction

The activities about the primary health care services which started to emerge in 1970s around the world, making presence in Turkey in the 2000s, have made the sector quite dynamic. This rapid change and transformation seen in primary health care services in the recent years has also seriously affected physicians who provide health care services in the sector. The fact that the sector is difficult and so necessary to follow with dynamic and rapidly changing medical technology and treatment methods makes it necessary for physicians who started their professional life after an intensive medical education to update themselves (Akman, 2014). The most appropriate vocational education and in-service training to train physicians with these qualities are surely among the topics discussed and around the world to find some solutions (Uz, 1993).

This study includes opinions and suggestions on the importance and management of post-graduate sustainable vocational in-service training of physicians, who constitute the most important element of primary health care services. The study, aims to contribute to the institutionalization of sustainable service training for the physicians providing primary health care service, achieved and maintained by the very few institutions in Turkey with great self-devotion and efforts.

As of October 2012, as Medipol University Hospital, visits were made to physicians providing primary health care services. It was revealed from these visits and interviews that the physicians providing primary health care services in the field have lost contact

* Corresponding author. ORCID ID: 0000-0002-8529-6466

with the medical faculties they graduated from, that they did not hear any news from the medical faculties in Istanbul about their post-graduate education or that the physicians could not attend the trainings due to their work intensity. Family health units were visited in a total of 13 districts of Istanbul and one-to-one contact was made with family physicians to determine what kind of training they needed. In-service training programs were tried to be formed by obtaining their opinions about the topics, training methods, duration and days of the trainings to be arranged.

Literature review

Effects of Primary Healthcare Services on Community Health

Healthcare services include all kinds of care support, preventive and therapeutic activities that are offered to meet the health needs of individuals and the society and to raise health standards. Healthcare covers all activities made to preserve, maintain and improve the state of health (Dirican & Bilgel, 1993).

Primary health care services; include health services such as preventive health services for the individuals and the environment, outpatient diagnosis and treatment services, health checks, home care, first aid. Health units within the scope of primary health care services; Family Health Centers, Community Health Centers and Affiliated Units, Public Health Laboratory, 112 Emergency Health Services (Altay, 2007). Physicians working in primary health care institutions are as follows:

General Practitioners

The World Family Doctors Association (WONCA) has redefined the European General Practice discipline and expertise according to changing regional conditions. General practice in this definition (Allen et al., 2011); "Is an academic and scientific discipline with a unique educational content, research, evidence base and clinical practice, and a primary care-oriented clinical specialty. General practitioners deal with all health problems, regardless of age, gender or any other characteristics of the person and they take a special responsibility for the person's health. They deal with health problems with its physical, spiritual, social, cultural and existence dimensions" (Ungan & Ceyhun, 2008). They offer both therapeutic and preventive healthcare services for the individual along with home visits and routine follow-ups (Aktaş & Çakır, 2012).

Family Doctors

By the year 1983 the family practice specialty that had been applied in the world for 10 years, was considered necessary to apply in Turkey, when it was made compulsory with an issued regulation (Medical Specialization Regulation) and was adopted the same year family medicine as a specialty branch in Turkey (Oner, 2015; Başak & Görpeliöđlu, 2007). Family doctors can provide preventive medicine and primary care services for registered individuals and families, in a team concept and with the team, regardless of age, gender and disease, they take the first approach to any kind of health-related problems and consult with other branch specialists if necessary, and take into account the roles of physical, mental and social factors in the occurrence of the disease while evaluating their patient, they can continuously care for chronic and terminal diseases, establish cross-sectoral coordination, and defend their patient's health rights against third parties (Avcı, 2010).

Family Practice Specialists

Family medicine practice started as a pilot in 2005 and covered all 81 provinces in 2010 (Öner, 2015). In this process, the Family Doctors undertake all kinds of counseling on all health-related issues of the patient or family, including the necessary consultation and social services (Gökay, 2004).

Primary health care services are on the one hand a very good organization, on the other hand, they are health care services that require great dedication but without immediately visible results. Therefore, they are services which are useful to the society but the importance of which is not known enough by the society. The emerging branches of advanced specialization decrease the relationship of these disciplines with each other, a problem of coordination emerges among specialists, and this reveals the inability to provide comprehensive and continuous care to patients as a result. Complex diagnosis and treatment methods that increase the costs and that depend on technology eliminate the holistic approach to the patient's health problems (Rakel, 2011). At this point, primary health care is defined as "an integrated, accessible and comprehensive healthcare service that meets most of the personal health needs of a defined community, provides continuity, and provides health care and development services in addition to providing basic medical care" (Ungan & Ceyhun, 2008).

The benefits of primary health care services in terms of community health (Eser, 2008) can be listed as follows:

- 1- *Comfortable accessibility of the whole community to the prioritized and more needed services, reduction of inequalities,*
- 2- *Primary health care services providing holistic and comprehensive services,*
- 3- *Preventive and preserving services forming the basis of primary health care services,*
- 4- *Primary health care services being very economical for the early diagnosis and treatment of health problems,*
- 5- *Primary health service characteristics being individual and society oriented, and*
- 6- *Reducing the need for branch medical services in the follow-up of chronic diseases.*

Within the framework of the health transformation program, more financial resources are allocated to primary health care services and it is aimed to provide health insurance to the entire population and to eliminate inequalities in health (Atun et al., 2013). For the development of family practice providing primary health care (Başer et al., 2015):

- *Family medicine practices should be expanded, and the number of specialists should be increased,*
- *A strong and integrated academic structure should be created in universities and educational hospitals,*
- *Necessary studies should be initiated in the Ministry of Health for the completion of the missing educational staff such as chief assistant and assistant professor,*
- *In parallel with this, the number of assistants should be increased rapidly, and the training period of the assistants should be planned to spend 50% of their training in the field, such as training family health centers,*
- *A strong continuation of political will towards family medicine in recent years; In this context, the salary and additional income of family physicians working in the field should be improved,*
- *After the enactment of the family medicine law, the missing legal legislation should be regulated and updated,*
- *By assigning the population to the family medicine assistants in the field, the number of patients per doctor working in the field should be reduced from 3500-4000 to 2000-3000.*
- *Electronic networks within the framework of the common care plan; It is important to consider the items that need to be strengthened among family physicians, hospitals, elderly nursing homes and social security institutions.*

In-Service Trainings and Management of Primary Care Physicians

The main goal in General Practice training; is to provide a change of behavior that should be adopted by general practitioners. General practitioners should have the competence to provide the first health service in the society they serve, regardless of age, gender, disease, organ and factor, and without any other specialist, in the face of the most important health problems and problems that may affect health. At the end of vocational education, physicians should be enthusiastic, confident, self-critical and open to external criticism (GPE, 2008). Nowadays, just as the focus of the pre-graduate education has been the student, the physician should be brought closer to the epicenter in continuing medical education activities (Murat, 2010). Most of the reference books in the field of medicine are renewed at short intervals such as 3-4 years, the introduction of new technologies at an unbelievable speed, and the fact that the patients demand more and higher quality, the physicians must update their knowledge regularly and follow the innovations after graduation (Akçakanat et al., 1999).

In a study by Algin et al (2004) and in another study conducted by Barley et al (2001) in the United States, the problems of female family physicians were examined. 39% of the 587 family physicians participating in the study stated that they did not receive the necessary training in rural areas during the medical school education, while 16% stated that they could not find internships in rural areas during the internship period.

In a study conducted by the Turkish Medical Association (TTB), it is stated by the physicians themselves that the knowledge and skills of family physicians are insufficient in different aspects. Family physician specialists who participated in the study of TTB think that general practitioners are insufficient in chronic disease management. In the same study, it was stated that family health personnel have training needs (Öcek & Çiçeklioğlu, 2013).

Physicians who provide primary health care services are the physicians who must have the competence to provide the first health service in the society they serve, regardless of age, gender, disease. They should be able to encounter important health problems and problems that may affect health without applying to some other specialist. Therefore, at the end of their vocational education, these physicians are required and expected to perform their duties eager, confident, self-criticizing and open to external criticism (Yılmaz, 2012).

Purpose and Importance of the Research

It is very important for the quality of service that physicians who provide primary health care services (Family Physician and Family Medicine Specialist, General Practitioner, SAHU-Contracted Family Medicine Specialist) can update their professional knowledge and experience after graduation. For sustainable in-service training, it is necessary to determine the training needs of physicians and to create appropriate training programs, and to ensure that physicians regularly participate in the relevant training.

The aim of this research is to determine what kind of training they need in order to ensure that physicians providing primary health care services are able to update their professional knowledge after graduation and to adapt to rapidly changing medical information and technologies, and to contribute to how to plan, conduct and manage training in this field. One aim of the research is to determine the attitudes of physicians towards in-service training and their expectations from these trainings, and thus to provide accurate and effective management of a sustainable in-service training. The aim of achieving this study is to support the institutionalization of the planning and implementation of post-graduate in-service training of physicians providing primary care services, and thus to shed light on both the Ministry of Health and the future studies.

Research & Methodology

The 4,034 physicians offer primary health care services in Turkey has been working in Istanbul (<http://istanbulism.saglik.gov.tr/TR,49972/birim-sayfasi.html>, Date of access: 20.04.2018). Therefore, physicians (4.034 physicians) providing primary health care services in Istanbul were considered as the research population. The prepared questionnaire was applied to 1,601 primary care physicians who work in 13 districts (Avcılar, Bağcılar, Bahçelievler, Bakırköy, Başakşehir, Bayrampaşa, Esenler, Güngören, Fatih, Gaziosmanpaşa, Küçükçekmece, Sultangazi, Zeytinburnu) <http://istanbulism.saglik.gov.tr/TR,49972/birim-sayfasi.html>, Date of access: 20.04.2018).

Results of the study are concerned with determination and management of in-service training needs of all physicians offer primary health care services in Turkey. However, it is not possible to apply field research nationwide or throughout Istanbul due to the size of the population, time constraint and cost. Therefore, the study is planned in 13 districts of the European side of Istanbul. Istanbul Turkey reflects the mosaic in every area. It will be possible to say that a research carried out on the in-service education management and problems of physicians providing primary health care services in Istanbul Province is likely to reflect the country wide.

Data Gathering

Development and Application of the Survey

When considering the density of physicians providing primary care services during working hours, it is obvious that it is difficult to do the questionnaire face to face. Reaching a limited number of physicians outside the working hours which takes a long time, making it difficult to apply this method. It turns out that online survey is the most efficient and effective method of conducting a survey to primary health care physicians, whose time is precious and provide services to large audiences.

In the literature review on the subject of the research, it has been determined that the studies conducted in this area are very few (Akalin, 2002). The draft questionnaire was applied to 42 physicians providing primary care between October 21-30, 2017. As a result of this last pilot application, the questionnaire has been finalized and ready for implementation.

The survey form consists of 3 main sections. In the first section named “Personal Information”, basic demographic and professional information of the person who filled the questionnaire is requested. In the second part, there are questions to determine the attitudes and multi-faceted evaluations of the physicians providing primary care services regarding in-service training activities. In the third section, which is called “Development Areas”, there are various topics related to the professional and personal development process of physicians. In this section, in the process of professional and personal development, it is aimed to determine to what extent the relevant subjects are necessary for physicians and also to determine the level of proficiency of physicians in these subjects.

Empirical study performed in primary health centers in 13 districts of Istanbul (Avcılar, Bağcılar, Bahçelievler, Bakırköy, Başakşehir, Bayrampaşa, Esenler, Güngören, Fatih, Gaziosmanpaşa, Küçükçekmece, Sultangazi, Zeytinburnu) considering the cost and time constraints. It was applied to 1,601 primary care physicians. An online survey application site called “Survey Monkey” was subscribed and the final survey form was uploaded to this site. The e-mail addresses of the sample were obtained from the Istanbul Family Medicine Association (İSTAHED). With the option of sending mail in the online survey application's own system, 1,601 physicians providing primary care services were sent an electronic mail.

Table 1: Survey Response Rate

	N	%	Total %
Contacted (Survey Sent)	1.601	100	100
Surveys Submitted by İSTAHED	4.034	100	251,97
Total Returned Survey	672	41,97	16,66
Completely Empty Survey	7	1,04	---
Surveys Participating from Outside the Province	55	8,18	---
Surveys from İstanbul, but outside the Sample	111	16,52	----
Total Usable Survey	610	38,10	15,12

Response Rate = $610/4.034 = \%15,12$

At the end of all of these studies, 672 feedbacks were provided from the survey form that was accessible online between 01.01.2018 - 31.03.2018. Hence, by discounting the participants forms out of the city (55 surveys) from the survey count of 667 without the empty forms, the provided survey count was detected to be 610 as final result. When the forms from the other towns of İstanbul are accepted, the sampling reaches to 4.034 and the usable survey count of 610 forms 15,12% of this new sampling. 610 surveys in this search, is twice as much of the adequate number.

Reliability of the Survey Resulted to be Very High

Table 2: Reliability of the Survey

Cronbach's Alpha	Evaluated Material Amount
,962	76

As it is seen in the table below, 84% of the doctors who participate to the survey work in Family Healthcare Centers (FHC). While 9,5% of the participants consists of on-site doctors who work in public and private institutions, 3,7% works in Private Hospitals' Primary Health Care Service. Very few of the participants (1,3%) work in Public Health Care Centers.

There is data from 32 towns of İstanbul within the survey. Primary Health Care Service Doctors who contributed to the survey consist of 55,8% as male and 44,2% of female. 37,6% of the participants are in the age group of 36-45 and 29,3% percent is in the age group of 46-55. It is observed that 67% of the doctors who serve primary health care belong to age group of 36-55. Younger doctors that belong to age group of 25-35 make 24,3%, and the age group of 56 and above make 8,5%.

More than half (55,3%) of the doctors are certificated family doctors. Following the family doctors, pratican doctors form 22,7% of the participants. Specialist Family Doctor (10,5%) and Covenanted Specialist Family Doctor (9,7%) numbers are observed to be close to each other.

Table 3: General Information of the Participants

	N	%	Cumulative %
Institution of Service			
FHC (Family Healthcare Center)	504	84.0	84.0
Institution/Workplace Doctor	57	9.5	93.5
Hospital (Public-Private)	22	3.7	97.2
Society Healthcare Center	8	1.3	98.5
Dialysis Center	7	1.1	99.7
Emergency Service	2	0.3	100
Town of Service			
Bağcılar	84	14.0	
Küçükçekmece	67	11.2	
Başakşehir	57	9.5	
Sultanbeyli	1	0.2	
Çekmeköy	1	0.2	
Maltepe	2	0.3	
Kadıköy	2	0.3	
GENDER			
Male	339	55.8	55.8
Female	268	44.2	100
AGE			
25-35	148	24.4	24.4
36-45	228	37.6	61.9
46-55	179	29.5	91.4
56 and above	52	8.6	100
DEFINITION			
Certificated Family Doctor	331	55.3	55.3
Family Doctor	63	10.5	65.8
CFD	58	9.7	75.5
Family Doctors Who Graduated From Other Specialization	11	1.8	77.3
General Practitioner	136	22.7	100

Findings

In this session, analysis of the survey data, findings and related evaluations are presented.

Findings of Duties of the Participants

In this session, the findings that belong to duties of doctors before they serve in primary health care service and their current duties are evaluated.

Table 4: Place of Duty before Family Healthcare

Institution	N	%
Public Hospital	160	26.4
Cottage Hospital	233	38.5
Full Time Workplace Doctor	49	8.1
Private Healthcare Institution	81	13.4
Tuberculosis Dispensary	6	1.0
Emergency Service (911)	14	2.3
Society Healthcare Center	37	6.1
Dialysis Center	5	0.8
Ministry Of Health Administrative Organization	16	2.6
First Location of Duty	4	0.7
TOTAL	605	100.0

As it is seen in the table that, a big rate of the Primary health care Doctors (64,9%) that participated in the survey, come from cottage hospitals and public hospitals as more from from cottage hospitals (38,5%). Those who came from full time Workplace Doctor service are less ten 10% (8,1%).

Table 5: Time of Service as a Doctor

Year	N	%
1-10	194	32.0
11-20	217	35.7
21-30	143	23.6
31 and more	53	8.7
TOTAL	607	100.0

As seen in the table, 32% of the participant doctors yet newly started their profession (1-10 years). When it is acknowledged that “Experienced” title requires minimum of 10 years, 59,3% of the participants consists of 11-30 years. In this case, it is observed that most of the participants consist of those who serve more than 10 years and are experienced doctors.

Table 6: Period of Service as Family Doctor or Family Doctor Specialist

Year	N	%
0-2	73	12.4
3-5	88	14.9
6-8	342	58.0
9-11	49	8.3
12 and above	38	6.4
TOTAL	590	100,0

It is possible to consider the participants as experienced in Physician profession however new in Family Doctor/Family Doctor Specialist profession. That Family Doctor and Family Doctor Specialist profession is a new practice in Turkey, shows that there aren't Family Doctors and Family Doctor Specialists with significant experience. The findings also support this situation.

Table 7: Benefiting from Internet for Career Development

Time	N	%
1-2	428	70,9
3-5	88	14,6
6-8	22	3,6
9 and above	9	1,5
Not benefiting	57	9,4
TOTAL	604	100,0

That the participants are kind of new to Family Doctor Service, shows that they need to improve themselves. Despite internet is a useful source to help doctors in their professional area, doctors using internet for professional improvement is only 10% makes it questionable on if they are open to professional improvement.

Attitude and Consideration of Doctors who Serve Primary health care on Professional Improvement

Attitude of doctors towards service training, whether they received training on service, their experience on service training and findings of these experiences make up the analysis in this session.

Table 8: General Evaluation on Training Activities for Service of Family Doctors / Specialists

	N	%	Average	Standard Deviation
Not Useful at all	10	1,8	4,07	,946
Not Useful	35	6,3		
Neutral	64	11,6		
Useful	241	43,7		
Very Useful	202	36,6		
Total	552	100,0		

This question being not marked by 58 participants, shows that they didn't attend to these kinds of trainings and can be interpreted as they have no idea of advantages of these trainings. Average of the answers of the participants is 4,07, and this shows that the doctors find professional training activities useful.

Table 9: Service Training Programs that the Doctors Attended in the Las Two Years

	N	%
Yes	500	89,4
No	59	10,6
Total	559	100

89,4% of the doctors have attended professional service trainings in the last two years. 10,6% of the participants have attended no professional service training for the last two years. The participants were asked to write about three different subjects and the results were evaluated in three different groups in the table below.

Table 10: Attended Service Training Subjects

	Attended Trainings	N	%
GROUP I	Chronic Diseases (Diabetes, Hypertension, Obesity)	40	10,8
	Immunization, Vaccination and Cold Chain	33	8,9
	Baby Friendly, Breast Milk and Breast Feeding	29	7,8
	Family Doctor Compliance Training	27	7,3
	Psychosocial Growth of the Children and Child-Teenager Mental Health	25	6,7
	Domestic Violence and Harassment towards Women	23	6,2
GROUP II	Immunization, Vaccination and Cold Chain	19	8,9
	Domestic Violence and Harassment towards Women	19	8,9
	Baby Friendly, Breast Milk and Breast Feeding	16	7,5
	Psychosocial Growth of the Children and Child-Teenager Mental Health	13	6,1
	Chronic Diseases (Diabetes, Hypertension, Obesity)	13	6,1
	Pregnancy and Puerperal Follow-Up	13	6,1
GROUP III	Drug Addiction and Fight Against Drugs	14	14,4
	Chronic Diseases (Diabetes, Hypertension, Obesity)	10	10,3
	Well Child Follow-up and Adolescent Observation	9	9,3
	Immunization, Vaccination and Cold Chain	7	7,2
	Rationalist Antibiotic Use	7	7,2
	Cancer Scanning Protocols	7	7,2
	Domestic Violence and Harassment towards Women	7	7,2

When evaluating training subjects, it is observed that primary health care doctors attended trainings like “Chronic Diseases” and “Preventive Medicine”. The ones who haven’t attended any trainings in the last two years were asked about their reasons. As a reason they haven’t attended any training, the most common one (12 doctors) is “Busy schedule-having no time-Trainings being within the working hours”, few doctors who newly started to their service responded as they didn’t know about the trainings (3 doctors) and 1 participant considered that these trainings useless.

The doctors who attended service training were asked about where did they attend these trainings. Their responses were evaluated in the table below.

Table 11: Institutions where the Trainings were Received

Institutions	N	%
Ministry of Health	470	77,0
Turkish Medical Association	41	6,7
Associations or Foundations that Provide Service Training	190	31,1
Private Institutions	207	33,9
Universities	199	32,6
Other	27	4,4
Medipol Mega University Hospital	14	2,3
Congress and Symposiums	7	1,1
WHO World Health Organization	1	0,2
Training Research Hospitals	5	0,8

As seen in the table, primary health care doctors mostly received their professional service trainings from (470 doctors) Ministry of Health. Primary health care doctors received professional service trainings second mostly from (213 doctors) University and University hospitals.

One of the important goals of this study, is to obtain data by evaluating professional service training that primary health care doctors received in Turkey and contribute to all the service training that will be planned in the future. Within this context, primary health care doctors were asked that what were the problems they encountered during professional service training.

Table 12: Problems Encountered during Professional Service Training

Encountered Problems	N	%
Training Cost	151	24,8
Training Subjects Not being suitable to the Demand	183	30,0
Incapableness of the Trainers	169	27,7
The Training Not being Performed with Practice	323	53,0
The Training Not being Prepared According to Necessity Analysis	197	32,3
Training Programs Lasting Very Long Time	60	9,8
Training Programs Lasting Very Short Time	79	13,0
Incapableness of the Training Locations	141	23,1
Training Locations being Far and not Easily Accessible	269	44,1

As seen in the table, half of the participants (53.0%) found that the most important problem they faced in in-service training was “The Training Not being Performed with Practice”. Secondly, almost half of the participants detected that “Training Locations being Far and not Easily Accessible” was a problem as well. In the emergence of this result, the fact that the research area was chosen as Istanbul is also of great importance. Because for all activities held in Istanbul, it is preferred that the activity venues are easily accessible and close to the participants. Other problems encountered by the participants in the in-service trainings are “The Training Not being Prepared According to Necessity Analysis” (%32,3) and “Training Subjects Not being suitable to the Demand” (%30,0).

In conclusion; in-service training should be practical for physicians providing primary care, the subjects which meet their needs must be determined, and for these, the training needs to be based on an education needs analysis.

In-service training expectations of the physicians are shown in the table below:

Table 13: Expectations from In-Service Training

Expectations		1	2	3	4	5	6	Total	Total Points
Self-Improvement	N	70	196	83	60	23	10	442	4,45
	%	15,8	44,3	18,8	13,6	5,2	2,3		
Professional Development	N	345	71	19	6	18	47	506	5,14
	%	68,2	14,0	3,8	1,2	3,6	9,3		
Gaining Vision	N	19	96	170	98	36	12	431	3,83
	%	4,4	22,3	39,4	22,7	8,4	2,8		
Motivation	N	11	80	144	140	42	14	431	3,62
	%	2,6	18,6	33,4	32,5	9,7	3,2		
Socializing	N	16	32	37	54	203	48	390	2,62
	%	4,1	8,2	9,5	13,8	52,1	12,3		
Due to Compulsory Course	N	48	22	29	18	35	236	388	2,25
	%	12,4	5,7	7,5	4,6	9,0	60,8		

In this part of the study, physicians providing primary health care services were asked to rank their expectations from in-service training in order of importance. All points are scored by giving six points to the first marked option, and one point to the sixth marked option. Participants want to receive in-service training in the following institutions:

Table 14: Institutions Providing In-Service Training or Requested to Provide

Institutions	Receiving		Requested to be Received	
	N	%	N	%
Ministry of Health	470	77,0	458	75,1
Turkish Medical Association	41	6,7	145	23,8
Associations / Foundations	190	31,1	287	47,0
Private Organizations	207	33,9	250	41,0
Universities	199	32,6	475	77,9

A striking result emerges in this table. There is a 2.55% decrease in the Ministry of Health option when the participants who receive in-service training in the Ministry of Health (470 physicians 77%) chose the institutions they want to receive training. Significant increase in other institutions also stands out. Turkish Medical Association holds the greatest increase with 253.66%, universities are in the second place with 138.69%. When it is evaluated in terms of the number of participants, there is a significant increase in the number of participants who would like to receive in-service training in universities (475 physicians 77.9%). The majority prefers the universities for in-service training.

In this section, physicians providing first degree healthcare services were asked an open-ended question to state which trainings they would like to receive under three topics.

Table 15: Preferred Priority Training Subjects for Improving the Performance of Physicians

Preferred Training Topics		N	%
GROUP I	Protective Medicine Topics*	151	30,6
	Chronic Diseases* *	96	19,5
	Therapeutic Medicine Topics* * **	89	18,1
GROUP II	Therapeutic Medicine Topics	138	29,3
	Protective Medicine Topics	113	24,0
	Chronic Diseases	93	19,7
GRUP III	Therapeutic Medicine Topics	127	30,0
	Protective Medicine Topics	95	22,4
	Chronic Diseases	71	16,7
	Emergency Medicine and Intervention Applications	46	10,8

*Vaccination of Sensitive Individuals, Providing Proper Nutrition for Individuals, Periodic Inspection of Healthy Individuals for the purpose of Early Diagnosis, General Scans

** Diabetes, Hypertension, Obesity, Asthma, COPD, Coronary Artery Diseases etc.

*** Internal Medicine, Dermatology, ENT, Infectious Diseases, Pediatrics, Eye, Orthopedics, Cardiology etc.

As it can be seen in the table, the most important topic when it comes to the training topics the primary health care physicians request is; “Protective Medicine Topics” (Vaccination of Sensitive Individuals, Providing Proper Nutrition for Individuals, Periodic Inspection of Healthy Individuals for the purpose of Early Diagnosis, General Scans), which was written down by 359 physicians. It was followed by “Therapeutic (Branch) Medicine Topics” (Internal Medicine, Dermatology, ENT, Infectious Diseases, Pediatrics, Eye, Orthopedics, Cardiology etc.) which was written by 354 physicians. 260 participants requested “Chronic Diseases” (Diabetes, Hypertension, Obesity, Asthma, COPD, Coronary Artery Diseases etc.) as another in-service training topic.

The following table has emerged, about how often physicians prefer in-service training:

Table 16: Frequency of Organizing In-Service Trainings

Frequency of Training	N	%
Every 15 days	70	12,7
Once a month	291	52,9
Every three months	140	25,5
Every six months	32	5,8
Once a year	12	2,2
More	5	0,9
Total	550	100

As seen from the table; 52.9% of physicians who offer primary health care, prefer to carry out in-service training once a month. 25.5% of physicians recommend having the training once in three months.

Table 17: Duration of In-Service Trainings

Duration	N	%
1/2 days	194	35,0
1 day	216	39,0
2 days	76	13,7
3 days	38	6,9
5 days	30	5,4
Total	554	100

39% of physicians who provide primary health care, prefer having the in-service training for one day. 35% agree that the trainings should last half a day.

The time period of the trainings holds as much importance as the length of them. Hence, it is a significant topic when planning the in-service trainings. The participant's opinions on this topic can be seen in the table below.

Table 18: Time Interval for In-Service Trainings

Time Interval of the Training	N	%
During Working Hours	297	53,6
At the end of Working Hours	46	8,3
During Lunch Break	11	2,0
Weekends	200	36,1
Total	554	100

The disagreement of the participating physicians about the time intervals of the in-service trainings is clearly reflected in the results. 53.6% of physicians argued that training should be within working hours, while 36.1% said they favored the trainings being held over the weekend. It is highly likely that, since physicians are at an intensive working pace, they were more open having the trainings during working hours and set aside their personal time on the weekends. However, the fact that in-service training is usually done on weekends, not during working hours, was also accepted by a significant number of physicians (36.1%).

Another topic of discussion in the programming of in-service trainings is the place. The opinions of physicians who provide primary health care are included in the table below.

Table 19: Venues to Organize In-Service Trainings

Places	N	%
In places belonging to the Ministry of Health	167	30,3
In Places belonging to Universities	173	31,3
Venues belonging to Special Educational Institutions	63	11,4
Hotels	149	27,0
Total	552	100

The demand for a place different than their everyday stop and other familiar places, where they can feel comfortable and stress-free (hotels) is generally accepted for in-service training.

The last question in this section, which was to determine the approaches and expectations of the primary health care physicians about the in-service trainings, is the method of training.

Table 20: In-Service Training Methods

Training Method	N	%
Conference	271	44,4
Seminar	350	57,4
Case Study	380	62,3
Workshop	125	20,5
Distant (Online) Education	127	20,8
Group Work	275	45,1
Laboratory	102	16,7

When the participants were asked about the problems they encounter during in-service trainings, “The Training Not being Performed with Practice” option was chosen as an important problem by 323 physicians, which is 53% of the physicians participated in this research. The fact that the participants chose “Case Study” option for this question (380 physicians, 62.3%), shows that they would like to have practical in-service trainings with case studies. Participants also prefer methods like: “Seminar” (350 physicians, 57.4%), “Group Work” (275 physicians, 45.1%), and “Conference” (271 physicians, 44.4%). “Laboratory” method is the least preferred method as it can be seen.

Professional Knowledge and Skill Levels of Physicians Offering Primary Health Care Services

This section is aimed at determining the necessity of in-service training topics needed for professional development of physicians providing primary health care , and measuring their proficiency in these areas.

Table 21: Necessity of Professional Development for Family Physician

Educational Subjects		1	2	3	4	5	N	Average
Asthma Diagnosis Treatment	N	5	5	9	254	217	490	4.37
	%	1.0	1.0	1.8	51.8	44.3		
Chronic Obstructive Pulmonary Disease (COPD)	N	4	7	23	273	197	504	4.29
	%	0.8	1.4	4.6	54.2	39.1		
Acute Coronary Syndrome	N	2	13	32	204	254	505	4.38
	%	0.4	2.6	6.3	40.4	50.3		
Diagnosis and Treatment Methods for Essential Hypertension	N	1	3	10	134	360	508	4.67
	%	0.2	0.6	2.0	26.4	70.9		
Evaluation of Ischemia and Arrhythmia in ECG	N	1	9	28	185	288	511	4.47
	%	0.2	1.8	5.5	36.2	56.4		
Basic Life Support	N	3	9	32	151	312	507	4.50
	%	0.6	1.8	6.3	29.8	61.5		
Deep Vein Thrombosis	N	7	37	115	250	98	507	3.78
	%	1.4	7.3	22.7	49.3	19.3		

Table: Cont'd								
Pulmonary Thrombo Embolism	N	5	38	122	209	132	506	3.84
	%	1.0	7.5	24.1	41.3	26.1		
Preeclampsia	N	3	16	48	212	226	505	4.27
	%	0.6	3.2	9.5	42.0	44.8		
Anemia, Iron deficiency	N	7	22	19	150	310	508	4.44
	%	1.4	4.3	3.7	29.5	50.8		
Infant of a Mother with Diabetes	N	6	20	64	212	207	509	4.17
	%	1.2	3.9	12.6	41.7	40.7		
Sexually Transmitted Diseases	N	5	18	53	250	182	508	4.15
	%	1.0	3.5	10.4	49.2	35.8		
Vaccination and Side Effects:	N	2	9	7	123	369	510	4.66
	%	0.4	1.8	1.4	27.1	72.4		
Side Effects of the Medication	N	3	13	25	203	267	511	4.41
	%	0.6	2.5	4.9	39.7	43.8		
Dehydration	N	5	31	73	245	152	506	4.00
	%	1.0	6.1	14.4	48.4	30.0		
Depression	N	6	19	41	237	203	506	4.21
	%	1.2	3.8	8.1	46.8	40.1		
Diabetes Mellitus	N	1	6	8	161	333	509	4.61
	%	0.2	1.2	1.6	31.6	65.4		
Stroke:	N	5	21	66	257	156	505	4.07
	%	1.0	4.2	13.1	50.9	30.9		
Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	N	2	16	15	123	352	508	4.59
	%	0.4	3.1	3.0	24.2	69.3		
Acute Gastroenteritis	N	6	18	24	180	278	506	4.40
	%	1.2	3.6	4.7	35.6	54.9		
GIS Bleeding	N	6	20	85	257	138	506	3.99
	%	1.2	4.0	16.8	50.8	27.3		
Evaluation of Blood Parameters	N	2	10	14	162	322	510	4.55
	%	0.4	2.0	2.7	31.8	63.1		
Healthy Child (0-15 Years) Observation	N	6	21	42	148	287	504	4.37
	%	1.2	4.2	8.3	29.4	56.9		
Newborn jaundice and Its Management	N	10	28	62	219	186	505	4.08
	%	2.0	5.5	12.3	43.4	36.8		
The Importance and Support of Breastfeeding	N	10	29	31	142	293	505	4.34
	%	2.0	5.7	6.1	28.1	58.0		
Pregnant and Puerperant and Its Follow-up	N	8	22	32	149	295	506	4.39
	%	1.6	4.3	6.3	29.4	58.3		
Thyroid Diseases	N	3	14	30	253	205	505	4.27
	%	0.6	2.8	5.9	50.1	40.6		
Skin Diseases	N	7	12	38	247	200	504	4.23
	%	1.4	2.4	7.5	49.0	39.7		
Approach to Emergency Patients	N	4	15	26	191	270	506	4.40
	%	0.8	3.0	5.1	37.7	53.4		
Rational Use of Antibiotics	N	10	25	38	173	258	504	4.28
	%	2.0	5.0	7.5	34.3	51.2		
Allergic Diseases	N	5	19	33	251	197	505	4.22
	%	1.0	3.8	6.5	49.7	39.0		
Approach to Geriatric Patients	N	11	20	52	223	199	505	4.15
	%	2.2	4.0	10.3	44.2	39.4		
Approach to Individual of Alcohol and Substance Abuse	N	12	22	88	255	129	506	3.92
	%	2.4	4.3	17.4	50.4	25.5		

1= Very Insufficient 5= Very Satisfactory

In order to determine the training needs of physicians providing primary care, 33 training topics were questioned to measure the level of necessity for these topics with a five-point Likert scale. It is seen that the subject that physicians consider most necessary for their professional development is “Diagnosis and Treatment Methods of Essential Hypertension” with an average of 4.67. Secondly, “Vaccination and Side Effects” (4,66) are among the educational subjects deemed necessary. The subjects such as “Diabetes Mellitus” (4.61), “Common Inflammatory Diseases” (URTI, LRTI, UTI, Influenza and Eruptive Diseases) (4,59), “Evaluation of Blood Parameters” (4,55), and “Basic Life Support ”(4,50) are among the important subjects that they consider necessary for their professional development by physicians providing primary care. It is striking that these results coincide with priority education issues (“Chronic Diseases,“ Therapeutic (Branch) Medicine ”and“ Preventive Medicine ”) that are thought to help increase the performance of the participant physicians in question 15. “Diagnosis and Treatment Methods of Essential Hypertension” and “Diabetes Mellitus” draw attention as the in-service training subject that physicians who provide primary health care services as chronic diseases deemed the most necessary. “Vaccination and Side Effects” also comes to the forefront in the field of preventive medicine where participant

physicians want to receive more education. “Common Inflammatory Diseases” and “Evaluation of Blood Parameters” are among the in-service training topics preferred by participant physicians in the Therapeutic (Branch) Medicine field.

In addition to the in-service training issues that physicians deem necessary, the question of which fields do they consider their knowledge and skill level sufficient comes to mind. At the same time, the answers given by the participants in the first group (Necessity of professional development issues for the physician), the relationship between their level of knowledge and skills, and their consistency in this matter are tried to be measured.

Table 22: Professional Knowledge and Skill Level in Professional Development

Educational Subjects		1	2	3	4	5	N	Average																																																																																																																																																																																																																																																																																																																																																																																																																		
Asthma Diagnosis Treatment	N	2	46	116	295	26	485	3.61																																																																																																																																																																																																																																																																																																																																																																																																																		
	%	0.4	9.5	23.9	60.8	5.4			Chronic Obstructive Pulmonary Disease (COPD)	N	2	54	150	262	23	491	3.51	%	0.4	11.0	30.5	53.4	4.7	Acute Coronary Syndrome	N	5	74	180	212	28	499	3.37	%	1.0	14.8	36.1	42.5	5.6	Diagnosis and Treatment Methods for Essential Hypertension	N	0	28	70	342	58	498	3.86	%	0.0	5.6	14.1	68.7	11.6	Evaluation of Ischemia and Arrhythmia in ECG	N	13	79	196	179	32	499	3.28	%	2.6	15.8	39.3	35.9	6.4	Basic Life Support	N	6	55	143	246	49	499	3.56	%	1.2	11.0	28.7	49.3	9.8	Deep Vein Thrombosis	N	11	107	201	162	17	498	3.13	%	2.2	21.5	40.4	32.5	3.4	Pulmonary Thrombo Embolism	N	17	119	228	123	11	498	2.98	%	3.4	23.9	45.8	24.7	2.2	Preeclampsia	N	11	91	167	205	18	492	3.26	%	2.2	18.5	33.9	41.7	3.7	Anemia, Iron deficiency	N	0	7	24	281	182	494	4.29	%	0.0	1.4	4.9	56.9	36.8	Infant of a Mother with Diabetes	N	6	71	193	192	33	495	3.35	%	1.2	14.3	39.0	38.8	6.7	Sexually Transmitted Diseases	N	4	34	135	276	46	495	3.66	%	0.8	6.9	27.3	55.8	9.3	Vaccination and Side Effects:	N	2	31	90	298	76	497	3.84	%	0.4	6.2	18.1	60.0	15.3	Side Effects of the Medication	N	6	57	178	219	34	494	3.44	%	1.2	11.5	36.0	44.3	6.9	Dehydration	N	4	38	139	263	50	494	3.64	%	0.8	7.7	28.1	53.2	10.1	Depression	N	6	52	128	275	33	494	3.56	%	1.2	10.5	25.9	55.7	6.7	Diabetes Mellitus	N	2	23	115	312	40	492	3.74	%	0.4	4.7	23.4	63.4	8.1	Stroke:	N	12	97	223	147	14	493	3.11	%	2.4	19.7	45.2	29.8	2.8	Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	N	0	12	41	292	152	497	4.18	%	0.0	2.4	8.2	58.8	30.6	Acute Gastroenteritis	N	2	10	38	308	138	496	4.15	%	0.4	2.0	7.7	62.1	27.8	GIS Bleeding	N	6	45	158	239	45	493	3.55	%	1.2	9.1	32.0	48.5	9.1	Evaluation of Blood Parameters	N	4	25	80	312	75	496	3.86	%	0.8	5.0	16.1	62.9	15.1	Healthy Child (0-15 Years) Observation	N	6	26	99	283	81	495	3.82	%	1.2	5.3	20.0	57.2	16.4	Newborn jaundice and Its Management	N	10	60	161	224	41	496	3.46	%	2.0	12.1	32.5	45.2	8.3	The Importance and Support of Breastfeeding	N	4	19	48	249	177	497	4.16	%	0.8	3.8	9.7	50.1	35.6	Pregnant and Puerperant and Its Follow-up	N	5	33	86	262	111	497	3.89	%	1.0	6.6	17.3	52.7	22.3	Thyroid Diseases	N	3	37	154	253	49	496	3.62	%	0.6	7.5	31.0	51.0	9.9	Skin Diseases	N	9	67	145	244	29	494	3.44	%	1.8	13.6
Chronic Obstructive Pulmonary Disease (COPD)	N	2	54	150	262	23	491	3.51																																																																																																																																																																																																																																																																																																																																																																																																																		
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	%	1.0	14.8	36.1	42.5	5.6			Diagnosis and Treatment Methods for Essential Hypertension	N	0	28	70	342	58	498	3.86	%	0.0	5.6	14.1	68.7	11.6	Evaluation of Ischemia and Arrhythmia in ECG	N	13	79	196	179	32	499	3.28	%	2.6	15.8	39.3	35.9	6.4	Basic Life Support	N	6	55	143	246	49	499	3.56	%	1.2	11.0	28.7	49.3	9.8	Deep Vein Thrombosis	N	11	107	201	162	17	498	3.13	%	2.2	21.5	40.4	32.5	3.4	Pulmonary Thrombo Embolism	N	17	119	228	123	11	498	2.98	%	3.4	23.9	45.8	24.7	2.2	Preeclampsia	N	11	91	167	205	18	492	3.26	%	2.2	18.5	33.9	41.7	3.7	Anemia, Iron deficiency	N	0	7	24	281	182	494	4.29	%	0.0	1.4	4.9	56.9	36.8	Infant of a Mother with Diabetes	N	6	71	193	192	33	495	3.35	%	1.2	14.3	39.0	38.8	6.7	Sexually Transmitted Diseases	N	4	34	135	276	46	495	3.66	%	0.8	6.9	27.3	55.8	9.3	Vaccination and Side Effects:	N	2	31	90	298	76	497	3.84	%	0.4	6.2	18.1	60.0	15.3	Side Effects of the Medication	N	6	57	178	219	34	494	3.44	%	1.2	11.5	36.0	44.3	6.9	Dehydration	N	4	38	139	263	50	494	3.64	%	0.8	7.7	28.1	53.2	10.1	Depression	N	6	52	128	275	33	494	3.56	%	1.2	10.5	25.9	55.7	6.7	Diabetes Mellitus	N	2	23	115	312	40	492	3.74	%	0.4	4.7	23.4	63.4	8.1	Stroke:	N	12	97	223	147	14	493	3.11	%	2.4	19.7	45.2	29.8	2.8	Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	N	0	12	41	292	152	497	4.18	%	0.0	2.4	8.2	58.8	30.6	Acute Gastroenteritis	N	2	10	38	308	138	496	4.15	%	0.4	2.0	7.7	62.1	27.8	GIS Bleeding	N	6	45	158	239	45	493	3.55	%	1.2	9.1	32.0	48.5	9.1	Evaluation of Blood Parameters	N	4	25	80	312	75	496	3.86	%	0.8	5.0	16.1	62.9	15.1	Healthy Child (0-15 Years) Observation	N	6	26	99	283	81	495	3.82	%	1.2	5.3	20.0	57.2	16.4	Newborn jaundice and Its Management	N	10	60	161	224	41	496	3.46	%	2.0	12.1	32.5	45.2	8.3	The Importance and Support of Breastfeeding	N	4	19	48	249	177	497	4.16	%	0.8	3.8	9.7	50.1	35.6	Pregnant and Puerperant and Its Follow-up	N	5	33	86	262	111	497	3.89	%	1.0	6.6	17.3	52.7	22.3	Thyroid Diseases	N	3	37	154	253	49	496	3.62	%	0.6	7.5	31.0	51.0	9.9	Skin Diseases	N	9	67	145	244	29	494	3.44	%	1.8	13.6	29.4	49.4	5.9																											
Diagnosis and Treatment Methods for Essential Hypertension	N	0	28	70	342	58	498	3.86																																																																																																																																																																																																																																																																																																																																																																																																																		
	%	0.0	5.6	14.1	68.7	11.6			Evaluation of Ischemia and Arrhythmia in ECG	N	13	79	196	179	32	499	3.28	%	2.6	15.8	39.3	35.9	6.4	Basic Life Support	N	6	55	143	246	49	499	3.56	%	1.2	11.0	28.7	49.3	9.8	Deep Vein Thrombosis	N	11	107	201	162	17	498	3.13	%	2.2	21.5	40.4	32.5	3.4	Pulmonary Thrombo Embolism	N	17	119	228	123	11	498	2.98	%	3.4	23.9	45.8	24.7	2.2	Preeclampsia	N	11	91	167	205	18	492	3.26	%	2.2	18.5	33.9	41.7	3.7	Anemia, Iron deficiency	N	0	7	24	281	182	494	4.29	%	0.0	1.4	4.9	56.9	36.8	Infant of a Mother with Diabetes	N	6	71	193	192	33	495	3.35	%	1.2	14.3	39.0	38.8	6.7	Sexually Transmitted Diseases	N	4	34	135	276	46	495	3.66	%	0.8	6.9	27.3	55.8	9.3	Vaccination and Side Effects:	N	2	31	90	298	76	497	3.84	%	0.4	6.2	18.1	60.0	15.3	Side Effects of the Medication	N	6	57	178	219	34	494	3.44	%	1.2	11.5	36.0	44.3	6.9	Dehydration	N	4	38	139	263	50	494	3.64	%	0.8	7.7	28.1	53.2	10.1	Depression	N	6	52	128	275	33	494	3.56	%	1.2	10.5	25.9	55.7	6.7	Diabetes Mellitus	N	2	23	115	312	40	492	3.74	%	0.4	4.7	23.4	63.4	8.1	Stroke:	N	12	97	223	147	14	493	3.11	%	2.4	19.7	45.2	29.8	2.8	Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	N	0	12	41	292	152	497	4.18	%	0.0	2.4	8.2	58.8	30.6	Acute Gastroenteritis	N	2	10	38	308	138	496	4.15	%	0.4	2.0	7.7	62.1	27.8	GIS Bleeding	N	6	45	158	239	45	493	3.55	%	1.2	9.1	32.0	48.5	9.1	Evaluation of Blood Parameters	N	4	25	80	312	75	496	3.86	%	0.8	5.0	16.1	62.9	15.1	Healthy Child (0-15 Years) Observation	N	6	26	99	283	81	495	3.82	%	1.2	5.3	20.0	57.2	16.4	Newborn jaundice and Its Management	N	10	60	161	224	41	496	3.46	%	2.0	12.1	32.5	45.2	8.3	The Importance and Support of Breastfeeding	N	4	19	48	249	177	497	4.16	%	0.8	3.8	9.7	50.1	35.6	Pregnant and Puerperant and Its Follow-up	N	5	33	86	262	111	497	3.89	%	1.0	6.6	17.3	52.7	22.3	Thyroid Diseases	N	3	37	154	253	49	496	3.62	%	0.6	7.5	31.0	51.0	9.9	Skin Diseases	N	9	67	145	244	29	494	3.44	%	1.8	13.6	29.4	49.4	5.9																																										
Evaluation of Ischemia and Arrhythmia in ECG	N	13	79	196	179	32	499	3.28																																																																																																																																																																																																																																																																																																																																																																																																																		
	%	2.6	15.8	39.3	35.9	6.4			Basic Life Support	N	6	55	143	246	49	499	3.56	%	1.2	11.0	28.7	49.3	9.8	Deep Vein Thrombosis	N	11	107	201	162	17	498	3.13	%	2.2	21.5	40.4	32.5	3.4	Pulmonary Thrombo Embolism	N	17	119	228	123	11	498	2.98	%	3.4	23.9	45.8	24.7	2.2	Preeclampsia	N	11	91	167	205	18	492	3.26	%	2.2	18.5	33.9	41.7	3.7	Anemia, Iron deficiency	N	0	7	24	281	182	494	4.29	%	0.0	1.4	4.9	56.9	36.8	Infant of a Mother with Diabetes	N	6	71	193	192	33	495	3.35	%	1.2	14.3	39.0	38.8	6.7	Sexually Transmitted Diseases	N	4	34	135	276	46	495	3.66	%	0.8	6.9	27.3	55.8	9.3	Vaccination and Side Effects:	N	2	31	90	298	76	497	3.84	%	0.4	6.2	18.1	60.0	15.3	Side Effects of the Medication	N	6	57	178	219	34	494	3.44	%	1.2	11.5	36.0	44.3	6.9	Dehydration	N	4	38	139	263	50	494	3.64	%	0.8	7.7	28.1	53.2	10.1	Depression	N	6	52	128	275	33	494	3.56	%	1.2	10.5	25.9	55.7	6.7	Diabetes Mellitus	N	2	23	115	312	40	492	3.74	%	0.4	4.7	23.4	63.4	8.1	Stroke:	N	12	97	223	147	14	493	3.11	%	2.4	19.7	45.2	29.8	2.8	Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	N	0	12	41	292	152	497	4.18	%	0.0	2.4	8.2	58.8	30.6	Acute Gastroenteritis	N	2	10	38	308	138	496	4.15	%	0.4	2.0	7.7	62.1	27.8	GIS Bleeding	N	6	45	158	239	45	493	3.55	%	1.2	9.1	32.0	48.5	9.1	Evaluation of Blood Parameters	N	4	25	80	312	75	496	3.86	%	0.8	5.0	16.1	62.9	15.1	Healthy Child (0-15 Years) Observation	N	6	26	99	283	81	495	3.82	%	1.2	5.3	20.0	57.2	16.4	Newborn jaundice and Its Management	N	10	60	161	224	41	496	3.46	%	2.0	12.1	32.5	45.2	8.3	The Importance and Support of Breastfeeding	N	4	19	48	249	177	497	4.16	%	0.8	3.8	9.7	50.1	35.6	Pregnant and Puerperant and Its Follow-up	N	5	33	86	262	111	497	3.89	%	1.0	6.6	17.3	52.7	22.3	Thyroid Diseases	N	3	37	154	253	49	496	3.62	%	0.6	7.5	31.0	51.0	9.9	Skin Diseases	N	9	67	145	244	29	494	3.44	%	1.8	13.6	29.4	49.4	5.9																																																									
Basic Life Support	N	6	55	143	246	49	499	3.56																																																																																																																																																																																																																																																																																																																																																																																																																		
	%	1.2	11.0	28.7	49.3	9.8			Deep Vein Thrombosis	N	11	107	201	162	17	498	3.13	%	2.2	21.5	40.4	32.5	3.4	Pulmonary Thrombo Embolism	N	17	119	228	123	11	498	2.98	%	3.4	23.9	45.8	24.7	2.2	Preeclampsia	N	11	91	167	205	18	492	3.26	%	2.2	18.5	33.9	41.7	3.7	Anemia, Iron deficiency	N	0	7	24	281	182	494	4.29	%	0.0	1.4	4.9	56.9	36.8	Infant of a Mother with Diabetes	N	6	71	193	192	33	495	3.35	%	1.2	14.3	39.0	38.8	6.7	Sexually Transmitted Diseases	N	4	34	135	276	46	495	3.66	%	0.8	6.9	27.3	55.8	9.3	Vaccination and Side Effects:	N	2	31	90	298	76	497	3.84	%	0.4	6.2	18.1	60.0	15.3	Side Effects of the Medication	N	6	57	178	219	34	494	3.44	%	1.2	11.5	36.0	44.3	6.9	Dehydration	N	4	38	139	263	50	494	3.64	%	0.8	7.7	28.1	53.2	10.1	Depression	N	6	52	128	275	33	494	3.56	%	1.2	10.5	25.9	55.7	6.7	Diabetes Mellitus	N	2	23	115	312	40	492	3.74	%	0.4	4.7	23.4	63.4	8.1	Stroke:	N	12	97	223	147	14	493	3.11	%	2.4	19.7	45.2	29.8	2.8	Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	N	0	12	41	292	152	497	4.18	%	0.0	2.4	8.2	58.8	30.6	Acute Gastroenteritis	N	2	10	38	308	138	496	4.15	%	0.4	2.0	7.7	62.1	27.8	GIS Bleeding	N	6	45	158	239	45	493	3.55	%	1.2	9.1	32.0	48.5	9.1	Evaluation of Blood Parameters	N	4	25	80	312	75	496	3.86	%	0.8	5.0	16.1	62.9	15.1	Healthy Child (0-15 Years) Observation	N	6	26	99	283	81	495	3.82	%	1.2	5.3	20.0	57.2	16.4	Newborn jaundice and Its Management	N	10	60	161	224	41	496	3.46	%	2.0	12.1	32.5	45.2	8.3	The Importance and Support of Breastfeeding	N	4	19	48	249	177	497	4.16	%	0.8	3.8	9.7	50.1	35.6	Pregnant and Puerperant and Its Follow-up	N	5	33	86	262	111	497	3.89	%	1.0	6.6	17.3	52.7	22.3	Thyroid Diseases	N	3	37	154	253	49	496	3.62	%	0.6	7.5	31.0	51.0	9.9	Skin Diseases	N	9	67	145	244	29	494	3.44	%	1.8	13.6	29.4	49.4	5.9																																																																								
Deep Vein Thrombosis	N	11	107	201	162	17	498	3.13																																																																																																																																																																																																																																																																																																																																																																																																																		
	%	2.2	21.5	40.4	32.5	3.4			Pulmonary Thrombo Embolism	N	17	119	228	123	11	498	2.98	%	3.4	23.9	45.8	24.7	2.2	Preeclampsia	N	11	91	167	205	18	492	3.26	%	2.2	18.5	33.9	41.7	3.7	Anemia, Iron deficiency	N	0	7	24	281	182	494	4.29	%	0.0	1.4	4.9	56.9	36.8	Infant of a Mother with Diabetes	N	6	71	193	192	33	495	3.35	%	1.2	14.3	39.0	38.8	6.7	Sexually Transmitted Diseases	N	4	34	135	276	46	495	3.66	%	0.8	6.9	27.3	55.8	9.3	Vaccination and Side Effects:	N	2	31	90	298	76	497	3.84	%	0.4	6.2	18.1	60.0	15.3	Side Effects of the Medication	N	6	57	178	219	34	494	3.44	%	1.2	11.5	36.0	44.3	6.9	Dehydration	N	4	38	139	263	50	494	3.64	%	0.8	7.7	28.1	53.2	10.1	Depression	N	6	52	128	275	33	494	3.56	%	1.2	10.5	25.9	55.7	6.7	Diabetes Mellitus	N	2	23	115	312	40	492	3.74	%	0.4	4.7	23.4	63.4	8.1	Stroke:	N	12	97	223	147	14	493	3.11	%	2.4	19.7	45.2	29.8	2.8	Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	N	0	12	41	292	152	497	4.18	%	0.0	2.4	8.2	58.8	30.6	Acute Gastroenteritis	N	2	10	38	308	138	496	4.15	%	0.4	2.0	7.7	62.1	27.8	GIS Bleeding	N	6	45	158	239	45	493	3.55	%	1.2	9.1	32.0	48.5	9.1	Evaluation of Blood Parameters	N	4	25	80	312	75	496	3.86	%	0.8	5.0	16.1	62.9	15.1	Healthy Child (0-15 Years) Observation	N	6	26	99	283	81	495	3.82	%	1.2	5.3	20.0	57.2	16.4	Newborn jaundice and Its Management	N	10	60	161	224	41	496	3.46	%	2.0	12.1	32.5	45.2	8.3	The Importance and Support of Breastfeeding	N	4	19	48	249	177	497	4.16	%	0.8	3.8	9.7	50.1	35.6	Pregnant and Puerperant and Its Follow-up	N	5	33	86	262	111	497	3.89	%	1.0	6.6	17.3	52.7	22.3	Thyroid Diseases	N	3	37	154	253	49	496	3.62	%	0.6	7.5	31.0	51.0	9.9	Skin Diseases	N	9	67	145	244	29	494	3.44	%	1.8	13.6	29.4	49.4	5.9																																																																																							
Pulmonary Thrombo Embolism	N	17	119	228	123	11	498	2.98																																																																																																																																																																																																																																																																																																																																																																																																																		
	%	3.4	23.9	45.8	24.7	2.2			Preeclampsia	N	11	91	167	205	18	492	3.26	%	2.2	18.5	33.9	41.7	3.7	Anemia, Iron deficiency	N	0	7	24	281	182	494	4.29	%	0.0	1.4	4.9	56.9	36.8	Infant of a Mother with Diabetes	N	6	71	193	192	33	495	3.35	%	1.2	14.3	39.0	38.8	6.7	Sexually Transmitted Diseases	N	4	34	135	276	46	495	3.66	%	0.8	6.9	27.3	55.8	9.3	Vaccination and Side Effects:	N	2	31	90	298	76	497	3.84	%	0.4	6.2	18.1	60.0	15.3	Side Effects of the Medication	N	6	57	178	219	34	494	3.44	%	1.2	11.5	36.0	44.3	6.9	Dehydration	N	4	38	139	263	50	494	3.64	%	0.8	7.7	28.1	53.2	10.1	Depression	N	6	52	128	275	33	494	3.56	%	1.2	10.5	25.9	55.7	6.7	Diabetes Mellitus	N	2	23	115	312	40	492	3.74	%	0.4	4.7	23.4	63.4	8.1	Stroke:	N	12	97	223	147	14	493	3.11	%	2.4	19.7	45.2	29.8	2.8	Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	N	0	12	41	292	152	497	4.18	%	0.0	2.4	8.2	58.8	30.6	Acute Gastroenteritis	N	2	10	38	308	138	496	4.15	%	0.4	2.0	7.7	62.1	27.8	GIS Bleeding	N	6	45	158	239	45	493	3.55	%	1.2	9.1	32.0	48.5	9.1	Evaluation of Blood Parameters	N	4	25	80	312	75	496	3.86	%	0.8	5.0	16.1	62.9	15.1	Healthy Child (0-15 Years) Observation	N	6	26	99	283	81	495	3.82	%	1.2	5.3	20.0	57.2	16.4	Newborn jaundice and Its Management	N	10	60	161	224	41	496	3.46	%	2.0	12.1	32.5	45.2	8.3	The Importance and Support of Breastfeeding	N	4	19	48	249	177	497	4.16	%	0.8	3.8	9.7	50.1	35.6	Pregnant and Puerperant and Its Follow-up	N	5	33	86	262	111	497	3.89	%	1.0	6.6	17.3	52.7	22.3	Thyroid Diseases	N	3	37	154	253	49	496	3.62	%	0.6	7.5	31.0	51.0	9.9	Skin Diseases	N	9	67	145	244	29	494	3.44	%	1.8	13.6	29.4	49.4	5.9																																																																																																						
Preeclampsia	N	11	91	167	205	18	492	3.26																																																																																																																																																																																																																																																																																																																																																																																																																		
	%	2.2	18.5	33.9	41.7	3.7			Anemia, Iron deficiency	N	0	7	24	281	182	494	4.29	%	0.0	1.4	4.9	56.9	36.8	Infant of a Mother with Diabetes	N	6	71	193	192	33	495	3.35	%	1.2	14.3	39.0	38.8	6.7	Sexually Transmitted Diseases	N	4	34	135	276	46	495	3.66	%	0.8	6.9	27.3	55.8	9.3	Vaccination and Side Effects:	N	2	31	90	298	76	497	3.84	%	0.4	6.2	18.1	60.0	15.3	Side Effects of the Medication	N	6	57	178	219	34	494	3.44	%	1.2	11.5	36.0	44.3	6.9	Dehydration	N	4	38	139	263	50	494	3.64	%	0.8	7.7	28.1	53.2	10.1	Depression	N	6	52	128	275	33	494	3.56	%	1.2	10.5	25.9	55.7	6.7	Diabetes Mellitus	N	2	23	115	312	40	492	3.74	%	0.4	4.7	23.4	63.4	8.1	Stroke:	N	12	97	223	147	14	493	3.11	%	2.4	19.7	45.2	29.8	2.8	Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	N	0	12	41	292	152	497	4.18	%	0.0	2.4	8.2	58.8	30.6	Acute Gastroenteritis	N	2	10	38	308	138	496	4.15	%	0.4	2.0	7.7	62.1	27.8	GIS Bleeding	N	6	45	158	239	45	493	3.55	%	1.2	9.1	32.0	48.5	9.1	Evaluation of Blood Parameters	N	4	25	80	312	75	496	3.86	%	0.8	5.0	16.1	62.9	15.1	Healthy Child (0-15 Years) Observation	N	6	26	99	283	81	495	3.82	%	1.2	5.3	20.0	57.2	16.4	Newborn jaundice and Its Management	N	10	60	161	224	41	496	3.46	%	2.0	12.1	32.5	45.2	8.3	The Importance and Support of Breastfeeding	N	4	19	48	249	177	497	4.16	%	0.8	3.8	9.7	50.1	35.6	Pregnant and Puerperant and Its Follow-up	N	5	33	86	262	111	497	3.89	%	1.0	6.6	17.3	52.7	22.3	Thyroid Diseases	N	3	37	154	253	49	496	3.62	%	0.6	7.5	31.0	51.0	9.9	Skin Diseases	N	9	67	145	244	29	494	3.44	%	1.8	13.6	29.4	49.4	5.9																																																																																																																					
Anemia, Iron deficiency	N	0	7	24	281	182	494	4.29																																																																																																																																																																																																																																																																																																																																																																																																																		
	%	0.0	1.4	4.9	56.9	36.8			Infant of a Mother with Diabetes	N	6	71	193	192	33	495	3.35	%	1.2	14.3	39.0	38.8	6.7	Sexually Transmitted Diseases	N	4	34	135	276	46	495	3.66	%	0.8	6.9	27.3	55.8	9.3	Vaccination and Side Effects:	N	2	31	90	298	76	497	3.84	%	0.4	6.2	18.1	60.0	15.3	Side Effects of the Medication	N	6	57	178	219	34	494	3.44	%	1.2	11.5	36.0	44.3	6.9	Dehydration	N	4	38	139	263	50	494	3.64	%	0.8	7.7	28.1	53.2	10.1	Depression	N	6	52	128	275	33	494	3.56	%	1.2	10.5	25.9	55.7	6.7	Diabetes Mellitus	N	2	23	115	312	40	492	3.74	%	0.4	4.7	23.4	63.4	8.1	Stroke:	N	12	97	223	147	14	493	3.11	%	2.4	19.7	45.2	29.8	2.8	Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	N	0	12	41	292	152	497	4.18	%	0.0	2.4	8.2	58.8	30.6	Acute Gastroenteritis	N	2	10	38	308	138	496	4.15	%	0.4	2.0	7.7	62.1	27.8	GIS Bleeding	N	6	45	158	239	45	493	3.55	%	1.2	9.1	32.0	48.5	9.1	Evaluation of Blood Parameters	N	4	25	80	312	75	496	3.86	%	0.8	5.0	16.1	62.9	15.1	Healthy Child (0-15 Years) Observation	N	6	26	99	283	81	495	3.82	%	1.2	5.3	20.0	57.2	16.4	Newborn jaundice and Its Management	N	10	60	161	224	41	496	3.46	%	2.0	12.1	32.5	45.2	8.3	The Importance and Support of Breastfeeding	N	4	19	48	249	177	497	4.16	%	0.8	3.8	9.7	50.1	35.6	Pregnant and Puerperant and Its Follow-up	N	5	33	86	262	111	497	3.89	%	1.0	6.6	17.3	52.7	22.3	Thyroid Diseases	N	3	37	154	253	49	496	3.62	%	0.6	7.5	31.0	51.0	9.9	Skin Diseases	N	9	67	145	244	29	494	3.44	%	1.8	13.6	29.4	49.4	5.9																																																																																																																																				
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Sexually Transmitted Diseases	N	4	34	135	276	46	495	3.66																																																																																																																																																																																																																																																																																																																																																																																																																		
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	%	2.4	19.7	45.2	29.8	2.8			Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	N	0	12	41	292	152	497	4.18	%	0.0	2.4	8.2	58.8	30.6	Acute Gastroenteritis	N	2	10	38	308	138	496	4.15	%	0.4	2.0	7.7	62.1	27.8	GIS Bleeding	N	6	45	158	239	45	493	3.55	%	1.2	9.1	32.0	48.5	9.1	Evaluation of Blood Parameters	N	4	25	80	312	75	496	3.86	%	0.8	5.0	16.1	62.9	15.1	Healthy Child (0-15 Years) Observation	N	6	26	99	283	81	495	3.82	%	1.2	5.3	20.0	57.2	16.4	Newborn jaundice and Its Management	N	10	60	161	224	41	496	3.46	%	2.0	12.1	32.5	45.2	8.3	The Importance and Support of Breastfeeding	N	4	19	48	249	177	497	4.16	%	0.8	3.8	9.7	50.1	35.6	Pregnant and Puerperant and Its Follow-up	N	5	33	86	262	111	497	3.89	%	1.0	6.6	17.3	52.7	22.3	Thyroid Diseases	N	3	37	154	253	49	496	3.62	%	0.6	7.5	31.0	51.0	9.9	Skin Diseases	N	9	67	145	244	29	494	3.44	%	1.8	13.6	29.4	49.4	5.9																																																																																																																																																																																																																																																												
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Table: Cont'd

Approach to Emergency Patients	N	11	48	145	240	47	491	3.54
	%	2.2	9.8	29.5	48.9	9.6		
Rational Use of Antibiotics	N	1	10	75	311	95	492	3.99
	%	0.2	2.0	15.2	63.2	19.3		
Allergic Diseases	N	2	31	120	300	40	493	3.70
	%	0.4	6.3	24.3	60.9	8.1		
Approach to Geriatric Patients	N	6	78	204	185	21	494	3.28
	%	1.2	15.8	41.3	37.4	4.3		
Approach to Individual of Alcohol and Substance Abuse	N	21	126	199	135	14	495	2.99
	%	4.2	25.5	40.2	27.3	2.8		

1= Very Insufficient 5= Very Satisfactory

Evidently that doctors mostly prefer item 3=neutral response rather than 1=very insufficient and 5=very satisfactory As stated in the previous question, physicians providing primary care do not see themselves as responsible and relevant in the fields of emergency medicine and therapeutic medicine, nor do they consider themselves sufficient.

Table 23: The Necessity of Professional Development for Family Physicians and Comparison of Professional Knowledge and Skill Level

Necessity for Family Physician	Average	Professional Knowledge and Skill Level	Average
Diagnosis and Treatment Methods for Essential Hypertension	4.67	Pulmonary Thrombo Embolism	2.98
Vaccination and Side Effects:	4.66	Approach to Individual of Alcohol and Substance Abuse	2.99
Diabetes Mellitus	4.61	Stroke:	3.11
Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	4.59	Deep Vein Thrombosis	3.13
Evaluation of Blood Parameters	4.55	Preeclampsia	3.26
Necessity for Family Physician	Average	Professional Knowledge and Skill Level	Average
GIS Bleeding	3.99	Acute Gastroenteritis	4.15
Approach to Individual of Alcohol and Substance Abuse	3.92	The Importance and Support of Breastfeeding	4.16
Pulmonary Thrombo Embolism	3.84	Common Inflammatory Diseases (URTI, LRTI, UTI, Influenza and Eruptive Diseases)	4.18
Deep Vein Thrombosis	3.78	Anemia, Iron deficiency	4.29

As it can be understood from this table, the knowledge and skill levels of physicians are not sufficient in areas where education is not needed.

Table 24: Necessity of Personal Development for Family Physician

Educational Subjects	1	2	3	4	5	N	Average
Malpractice and Medico-legal Prevention Strategies	N 1	3	22	173	288	487	4.53
	% 0.2	0.6	4.5	35.5	59.1		
Medical and Legal Dimensions of Organ Transplantation	N 22	59	115	196	98	490	3.59
	% 4.5	12.0	23.5	40.0	20.0		
Communication Skills in Medicine	N 3	15	34	179	260	491	4.38
	% 0.6	3.1	6.9	36.5	53.0		
Conflict Management	N 3	13	60	183	230	489	4.28
	% 0.6	2.7	12.3	37.4	47.0		
Stress Management	N 1	7	22	192	265	487	4.46
	% 0.2	1.4	4.5	39.4	54.4		
Problem Solving	N 1	6	28	207	249	491	4.42
	% 0.2	1.2	5.7	42.2	50.7		
Effective Time Management	N 3	13	34	197	245	492	4.36
	% 0.6	2.6	6.9	40.0	49.8		
Medical Technology and Device Training	N 4	28	75	216	169	492	4.05
	% 0.8	5.7	15.2	43.9	34.3		
Treatment Protocols	N 1	2	20	187	283	493	4.52
	% 0.2	0.4	4.1	37.9	57.4		

As can be seen, it is noteworthy that the training field physicians need most for personal development is “Malpractice and Medico-legal Prevention Strategies” (4,53). The second is “Treatment Protocols” (4,52), and this has almost the same ratio, it constitutes the subject of in-service training that physicians consider necessary for personal development. “Stress Management” (4.46), Problem Solving (4.42), Communication Skills in Medicine (4.38), “Effective Time Management” (4.36) are the training subjects that physicians emphasize and deem necessary.

Table 25: Level of Professional Knowledge and Skills in Personal Development

Education Topics		1	2	3	4	5	N	Average
Malpractice and Medico-legal Prevention Strategies	N	24	131	197	119	16	487	2.94
	%	4.9	26.9	40.5	24.4	2.6		
Medical and Legal Dimensions of Organ Transplantation	N	44	145	213	75	11	488	2.72
	%	7.2	29.7	43.6	15.4	2.3		
Communication Skills of Physicians	N	4	24	105	288	69	490	3.80
	%	0.8	4.9	21.4	58.8	14.1		
Working Management	N	9	50	171	224	38	492	3.47
	%	1.8	10.2	34.8	45.5	7.7		
Stress Management	N	15	43	172	231	31	492	3.45
	%	3.0	8.7	35.0	47.0	6.3		
Problem Solving	N	4	19	121	296	52	492	3.76
	%	0.8	3.9	24.6	60.2	10.6		
Effective Time Management	N	11	38	152	242	48	491	3.57
	%	2.2	7.7	31.0	49.3	9.8		
Medical Technology and Device Training	N	22	112	224	115	17	490	2.99
	%	4.5	22.9	45.7	23.5	3.5		
Treatment Protocols	N	7	46	177	239	23	492	3.46
	%	1.4	9.3	36.0	48.6	4.7		

It was tried to find out level of proficiency and required personal development education level of the physicians providing healthcare services in Primary health care centers. In this part it is evident that physicians consider themselves insufficient in terms of the “Medical, Religious and Legal Dimensions for Organ Transplantation” (2,72) topic, which extensively debated today. It is noticeable, that they have stated that education is not much necessary in this field, in which they consider themselves insufficient. On the other hand, the fact that physicians, who do not consider themselves sufficient in “Malpractice and Medico-legal Prevention Strategies” (2,94), also determine that education they need most in this field is a clear indication that physicians who provide primary health care services really have major deficit in this area.

Table 26: Comparison of Necessity for Personal Development, Professional Knowledge and Skill Level of Primary Health Care Physicians

Necessity for Primary health care Physician	Average	Level of Professional Knowledge and Skills	Average
Malpractice and Medico-legal Prevention Strategies	4.53	Medical, Religious and Legal Dimensions for Organ Transplantation	2.72
Treatment Protocols	4.52	Malpractice and Medico-legal Prevention Strategies	2.94
Stress Management	4.46	Medical Technology and Device Education	2.99
Problem Solving	4.42	Stress Management	3.45
Necessity for Primary health care Physician	Average	Level of Professional Knowledge and Skills	Average
Working Management	4.28	Effective Time Management	3.57
Medical Technology and Device Training	4.05	Problem Solving	3.76
Medical and Legal Dimension for Organ Transplantation	3.59	Communication Skills of Physicians	3.80

An interesting result comes out in the table above. While the physicians who participated in the questionnaire survey stated that they do not have enough information about the “Medical, Religious and Legal Dimensions for Organ Transplantation” (2,72), they state

that there is no need for in-service training (3,59). This situation shows the physicians' indifference to the subject. While expressing the lack of knowledge and skills (2,94) in 'Malpractice and Medico-legal Prevention Strategies', it is clearly emphasized that training on this issue is required (4,53).

Conclusions

This study was prepared in order to show the necessity of in-service education and to increase post-graduate professional knowledge and experience of doctors offering primary health care services in Turkey (family doctor, family medicine specialist, general practitioners and contract family medicine specialist)

In the literature surveys it is stated that primary health care physicians lose their basic knowledge after graduation and demand self-development according to change in medical information and technological development, patient rights, demographic aging of the population, etc. Therefore, the study aimed to guide both the institutions and organizations providing this education and the Ministry of Health, as well as the researchers in this field by contributing to the management and planning of in-service training of physicians providing primary healthcare services. In the first part of the study, the definition, legislation and origin of primary health care services and physicians providing primary care (Practitioners, Family Physicians and Family Medicine Specialists) are discussed. The second part in planning and in-service training experiences related to continuing medical education and medicine in Turkey, is explained with these education institutions. The third part focuses on world examples (Germany, Japan and Canada) about the education management of physicians offering primary care services and related institutions in the world and their works. In the last part, an in-service training needs analysis was conducted with a questionnaire survey applied to 4.034 primary care physicians across Istanbul. The aim of the research is to measure the attitudes and evaluations of physicians providing primary care services towards in-service training and their expectations from these trainings, thus contributing to the planning of a sustainable in-service training management. The data obtained from the research also serve to determine what kind of training physicians providing primary care services need and on which subjects they trust their knowledge and experience.

Data obtained from this study, results and determinations obtained by these data are guiding the institutions and organizations for planning and management of the institution education and organizations providing / will provide in-service training to physicians offering primary care services. It includes special features that will highlight studies for researchers in this field.

When planning in-service training for physicians, it should be paid attention that it should be held for 1-2 days a month in the institution providing high-quality service such as a hotel. Attention should be paid to prefer training issues related to preventive medicine and chronic diseases in trainings regarding professional development of physicians besides their education, planning and implementation of universities. Therapeutic medicine issues should also be among the prominent topics in the planning of trainings. While "Malpractice and Medico-legal Prevention Strategies" are among the indispensable subjects in the training programs related to the personal development of physicians, "Treatment Protocols" should definitely be among the topics that will contribute to personal development.

Based on these results, planning in-service training programs for physicians offering primary health care services in Istanbul will be planned in cooperation with the Provincial Health Directorate, based on training needs analysis that can be updated by universities at certain intervals. In-service trainings that will be planned in the organization of the Provincial Directorate of Health under the responsibility of one or more universities for each region by dividing into certain regions of Istanbul will bring effective results in terms of reaching all primary care physicians in the city.

The results of the research show that physicians who provide primary health care services are demanding in-service trainings for their professional development after graduation. However, no consensus has yet been reached on the pursuit of post-graduate continuing medical education with a certain loan and the establishment of an examination system at regular intervals. After expertise for in-service training of doctors, a practice similar to the example of Germany, considered to be useful for Turkey.

In order to establish this application, continuous medical education magazines, regularly updated diagnosis and treatment guides, congresses, symposiums, workshops, courses, trainings organized by the Ministry of Health in cooperation with universities can be used. All relevant training activities can be related to credit principle within the framework of the continuing education approach (Öztürk, 2018). In addition, the exams to be held in certain periods (such as 5-10 years) and the results of these exams can be evaluated in the establishment of many parameters such as the sum of the credit points obtained by the physicians, the rating of the physicians' duties, promotion, reimbursement, remuneration and change of the job location. Owing to this practice, it can be said that physicians who want to be more successful, earn more and work in better institutions will significantly increase competition and therefore quality.

Turkey, whose plans include retraining doctors who offer primary health care, is believed to make a significant contribution to the scientific world, since the originality of this study will give important results to all organizations and institutions involved in research on this topic.

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