

THE VIEWS OF NEW GRADUATE PHYSICIANS ABOUT COMPULSORY SERVICE IN TURKEY

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SUMMARY: The objective of this study is to analyze the views of new graduate physicians on compulsory service. This is an important study because it is the first study on the views of new graduate physicians on compulsory service prior to their employment in Turkey.

This study was conducted in Turkey in August 2008. All new graduate physicians prior to employment were included in the study, who filled out online questionnaires (Response Rate = 65.9%). Variables impacted physicians' views on compulsory service were analyzed.

The total number of physicians tends to be less in relatively underdeveloped areas. A total of 49.0% of physicians found the practice of compulsory service useful. There is a statistically significant relationship between the views on the efficiency and need for compulsory service, and the choice of being a physician, regretting being a physician after being employed, and the views on solutions toward the maldistribution of physicians ($P < .05$).

The practice of compulsory service is beneficial for balancing the physician density in regions. Health Transformation Program (2003) activities are improving the inequality among the regions. Different policies should be developed and given to physicians to encourage them work in underdeveloped regions; they should also be made to see the health care need in the regions with fewer health care workforce. It is important to take these issues into consideration when developing policies toward the solution of this problem.

Key words: Compulsory service, obligatory service, new graduate physician, underdeveloped area.

INTRODUCTION

The maldistribution of health care workforce is a major problem worldwide. While the maldistribution of

physicians has negative impacts on developing countries on an international level, it creates disadvantages for rural areas and socioeconomically underdeveloped provinces on a national level (1,2). Sufficient and balanced distribution of physicians is a prerequisite to ensure equally effective and efficient health care services, and to obtain positive health care outcomes (3). Several initiatives have been implemented in all parts of the world to increase the number of physicians in underdeveloped countries and/or areas (3). Among the incentives that have been initiated

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to encourage physicians work in those areas are higher salaries, career enhancement opportunities, better social opportunities, opening medical schools in rural areas, and developing training programs toward working in rural areas. Furthermore, developed countries attract internationally well-trained and qualified health care professionals with higher salaries, and better living and working conditions, and employ them in areas undergoing physician scarcity. However, financial incentives are not possible every time, particularly, in developing countries with fragile economies because of its financial burden. Moreover it can set an example to other sectors and this may lead to the dissatisfaction of people working in other sectors. Because of such reasons, some countries adopt the practice of having physicians and other health care staff work in certain areas for a certain period. The literature indicates that this practice, which is called "compulsory service," "mandatory service," or "obligatory service," was first applied in Russia in the 1920s and adopted by several other countries after that (4).

Turkey is far behind the other WHO European Region countries and countries within the OECD area in terms of the physician density (5,6). Furthermore, the most serious problem was the imbalanced distribution of physicians within the country. The difference (7) that was three times between the regions with the best and worst distribution of physicians per 1000 indicates that there will be problems in accessing health care services in these areas in the past. Within the scope of the Health Transition Program (HTP), which was implemented by the Turkish Ministry of Health in 2003, a number of policies were developed toward the solution of these problems (8). One of them was compulsory service, implemented in 1981, which was abolished and the problem of maldistribution of health care workers was tried to be solved through methods such as the contracted health personnel implementation. The contracted physicians employed in areas designated by the government received 2.5 times more salary than government employees did. Furthermore, they were given equal employee personal rights. This policy implementation succeeded but limited in specialist physicians. Therefore, the practice of compulsory service was implemented again in 2005, and it became obligatory for physicians, either recently graduate or specialist, to work in areas in need of physicians for a period of 300–600

days. Physicians are assigned to zones designated by the government according to socioeconomic levels, and those who do not complete their compulsory services do not receive their medical school or specialist diplomas, and thus they cannot work in any other region. Although compulsory service aims at balancing physician density in Turkey, it is criticized for its restricting effect on physicians' lives and the freedom of workplace choices (9). However, another ethical problem is the fact that sick people in some areas are unable to access health services within their regions due to physician scarcity. Policymakers have to take these problems into consideration through public manner.

The major aim of this article is to examine new graduate physicians' views on compulsory service and working in underdeveloped areas.

METHODS

A questionnaire was prepared through the literature review on physician workforce in underdeveloped areas and outcomes of the focus group interviews. An expert was consulted for the appropriateness of the questionnaire's content. The preparation of the questionnaire was finalized through a pilot study on a randomly selected group of physicians to examine the clarity of the questions. The questionnaire consisted of two parts: the first part included demographic characteristics and the second part included views on working in underdeveloped areas.

A total of 2206 general practitioners, who graduated in 2008 and applied in August to take up appointments, were included into this descriptive study. From among 2206 physicians, 1454 (response rate = 65.9%) completed the online questionnaires. Responses of the physicians were inputted into an access database and coded prior to analysis. Categorical variables were analyzed using frequencies and percentages. Relations between physicians' thoughts on working compulsory service, and their demographics and views on compulsory service were explored through the chi-square analysis. SPSS v15 (SPSS, Chicago, IL, USA) was used for the statistical analysis. P values of variables $\leq .05$ were considered statistically significant.

FINDINGS

This survey was conducted with physicians to evaluate the impacts of personal factors on geographical imbalances in the distribution of physicians. The age of the study population was between 21 and 36, with a median

age of 24. Among these physicians, 53.4% were male and 46.6 % were female. As the physicians were recent graduates who had not yet been employed, their family incomes were analyzed. The family socioeconomic status (SES) of new graduate physicians was as follows: 12.7% were from low SES families, 63.8% were from average SES families, and 23.5% were from high SES families.

While 92.6% of the physicians were planning to pursue specialization in the upcoming years, the rate of those who wanted to remain as practitioners was only 3.1%. A total of 19.2% of the physicians had a desire to work in underdeveloped or rural areas. A total of 34.3% of the physicians thought that the practice of compulsory service was necessary and effective; 21.4% thought that the practice of compulsory service was useful, 28.1% thought it was useful to a certain degree, and 50.5% did not find the practice useful. The most important factor impacting the physicians' desire to work in underdeveloped areas was higher salaries. For 57.2% of the physicians the most important reason that encouraged working in these areas was higher salaries; for 20.8%, having additional rights toward occupational progress; for 14.7%, additional sources of income such as professional ranks, etc.; and for 7.3%, addition of the number of years worked as depreciation on retirement.

Physicians' gender, marital status, or their family incomes did not impact their views on compulsory service ($P > .05$) (Table 1); however, there is a statistically significant relation between the willingness to work in underdeveloped areas and the belief in the efficiency of and need for compulsory services ($P < .05$). Physicians who had a desire to work in underdeveloped areas had more positive views on the practice of compulsory service. Furthermore, there is a statistically significant relation between the willingness to work in underdeveloped areas and gender ($P < .05$). Female physicians had less desire to work in underdeveloped areas. However, it was found that higher salary was the most important incentives for both male and female physicians. Physicians' positive views on practices toward balancing the health care workforce density impacts their views on the need for compulsory service ($P < .05$). Those, who thought that the practices of contracted health care professionals and compulsory service were useful, believed more in the need for and efficiency of compulsory services. Physicians' views on

the problem of physician scarcity and work overload, which they considered as one of the most serious problems affecting health care services in Turkey, created significant differences for the views on compulsory service ($P < .05$). Moreover, physicians' views on whether higher salaries would increase motivation in the workplace were related to their views on compulsory service.

DISCUSSION

There can be various reasons for geographical imbalances in the distribution of the health care workforce. Physicians' past experiences, their reluctance to work in rural and/or underdeveloped areas, the physicians' and their families' dissatisfaction with the geographical region they work in, limited social opportunities, location of the medical schools in major cities, and difficulties in accessing medical tools and advanced technology in rural or underdeveloped areas negatively impact these areas. In Turkey, there was a considerable difference between geographical regions before the HTP implementation. In 2008, among the 6 zones designated by the Ministry of Health according to the socioeconomic development levels, zone 1, which consists the most developed regions, has nearly twice the number of physicians per 1000 population (1.74) than that of zone 6 (0.79) that consists of the least developed regions. Although this difference is decreasing rapidly, and recently much better, it was not possible to talk about equality between the zones in the past. To reduce this inequality in Turkey, compulsory service has been introduced and used for several years besides other several interventions. Although this practice is being criticized for its restricting influence on the physicians' freedom, it is being used due to the limited effects of other implementations to deal with the issue.

Many studies exploring the incentives encouraging working in rural, underdeveloped, or underserved areas shows that higher salaries are the most powerful incentive (11). Moreover, in a survey conducted by the Turkish Ministry of Health toward the formation of evidence-based policies, physicians noted that they could work in underdeveloped areas if their salaries are raised by four and a half times (12). Contrarily, although physicians working under the contracted health personnel implementation, which was developed as an alternative to compulsory service, receive higher salaries similar to market prices,

Table 1: Results of the Chi-square analysis regarding physicians' views on compulsory service.

		Effectiveness of and need for compulsory service				Chi- square	P value
		Yes (n) %		No n (%)			
Gender	Male	263	33.89	513	66.11	0.108	0.742
	Female	235	34.71	442	65.29		
Family household income	Low	66	35.87	118	64.13	3.286	0.193
	Average	329	35.45	599	64.55		
	High	103	30.21	238	69.79		
Marital status	Single	474	34.50	900	65.50	0.562	0.453
	Married	24	30.38	55	69.62		
Desire to work in underdeveloped areas?	Yes	177	63.4	102	36.6	130.401	0.001*
	No	321	27.3	853	72.7		
Regret receiving medical school education?	Yes	161	28.45	405	71.55	13.983	0.001*
	No	337	37.99	550	62.01		
Willing to become a physician?	Yes	445	36.57	772	63.43	17.864	0.001*
	Partly	48	23.19	159	76.81		
	No	5	17.24	24	82.76		
Do you find the practice of contracted health physicians useful?	Yes	171	42.75	229	57.25	24.639	0.001*
	Partly	121	36.67	209	63.33		
	No	113	26.46	314	73.54		
Do you find compulsory service useful?	Yes	264	87.42	38	12.58	649.397	0.001*
	Partly	176	44.22	222	55.78		
	No	43	6.03	670	93.97		
What are the problems of health care services?	The number of doctors	117	42.09	161	57.91	9.134	0.002*
	The number of nurses and midwives	22	40.74	32	59.26	1.041	0.308
	The number of other health care staff	7	26.92	19	73.08	0.635	0.426
	Medical tools	141	34.64	266	65.36	0.034	0.853
	Work overload	168	29.73	397	70.27	8.457	0.004*
	Hygiene	10	31.25	22	68.75	0.133	0.716
	Other	33	36.26	58	63.74	0.171	0.680
Factors impacting work performance	High salaries	123	29.01	301	70.99	7.366	0.007*
	Career opportunities	73	34.93	136	65.07	0.046	0.829
	Getting along with colleagues	119	37.30	200	62.70	1.666	0.197
	Getting along with the administration	7	21.88	25	78.13	2.223	0.135
	Self-development	176	37.53	293	62.47	3.253	0.071
Salary expectations	1000-1500	10	43.48	13	56.52	5.380	0.068
	1500-2000	58	42.34	79	57.66		
	2000-2500	430	33.28	862	66.72		

* P<.05

the program succeeded in limits especially for specialists. This proves the findings of studies that raising salaries is not the only answer to eliminate physician scarcity in some regions (13). Furthermore, it is believed that if more medical schools and postgraduate training hospitals are opened in regions undergoing physician scarcity, (14,15) and if their social and economic infrastructures are improved, these regions will attract more physicians. The physician density (10) in zone 5 that has more medical schools than that of the similar regions (such as zones 4 and 6) support the significance of the establishment of medical schools in underdeveloped areas.

One of the most important findings of this study is that physicians who have a desire to work in underdeveloped regions have more positive thoughts about compulsory service. Many other studies also found that physicians who had previous experiences of living or working in rural or underdeveloped areas are more inclined to work in these areas (16,17). It is natural that physicians with previous rural or underdeveloped area experiences are more willing to work in these areas because they know the needs of the region, as they have already witnessed the problems in health care services. Furthermore, initiating training programs in medical schools about rural medicine or intern programs in rural areas may change views and prejudices of physicians about these areas where they have not ever been. Also, in parallel with the outcomes of the study by Doescher *et.al*, (18) it was found out that females have a lesser tendency than males to work in underdeveloped areas. It shows that some characteristics of physicians have an impact on their preference of a working place.

Physician scarcity and work overload are the issues that impact views of new graduate physicians on

compulsory service. As compulsory service areas are already undergoing physician scarcity, physicians appointed to work in these areas have to deal with many issues. It should be noted that these problems may scare physicians who have just graduated and do not have any working experience yet. Also views of those who have voluntarily chosen to be physicians should be taken into consideration while evaluating their positive thoughts about compulsory service because work motivation is related to job satisfaction and effectiveness.

In sum, as no previous study on the views of new graduate physicians was found during the literature search, this study is believed to have a complementary role. Furthermore, this study is planned to be reconducted in 2013, which thus can be used as a reference to compare the differences between the first and second studies. Moreover, the scope of this study should be expanded to cover physicians who have been assigned jobs in underdeveloped and rural areas and those who have been working in these areas for a long period of time. To identify the needs of these regions and develop policies, it is important to know the views of physicians who have seen these regions and know well about their needs.

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