

The Migration Preferences of Newly Graduated Physicians in Turkey

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ABSTRACT

The issue of physician migration taking an important part in the brain drain is one of the focal points of the human resources policies in health. This issue is more important for countries like Turkey, where there is a shortage of physicians. The objective of this study is to research the reasons that could affect the migration preferences and to provide a basis to develop alternative policies to decrease the physician migration. For this purpose, the opinions of the physicians, who have newly graduated from the faculties of medicine in Turkey and haven't started working yet, about working or speciality studying in homeland or abroad are investigated. All newly graduated physicians were included in the study via online questionnaire. Variables that could be related to desire to study or work abroad were analyzed through logistic regression. 54.6% of the newly graduated physicians had a desire to study (Specialty/Ph.D.) or work abroad. However, only 22.6% of physicians who inclined to migrate have partially or completely made an attempt. Male physicians were more eager to emigrate. The physicians whose level of foreign language is very good were also more eager to study/work abroad.

Researching the reasons of the physicians to go abroad is very important to decrease the physician migration or turning it into an advantage. Therefore, the findings of this study and similar studies should be taken into consideration and the migration policies should be reviewed in this direction. Moreover, a systematic migration record system should be established and information sharing about the migration should be provided quickly in both our country and the countries of origin.

Key words: Physician migration, brain drain, new graduate physicians

INTRODUCTION

Brain drain and physician migration

The brain drain could be described as migration of the qualified and educated people for purposes such as better living conditions, better jobs, higher wages, high quality education, access to advanced technology and career development to any place in the world (1-2). The brain drain in the field of health especially the physician migration has become an important issue because of the reasons such as the deficits in the health labor of the rich countries and globalization (3). The literature shows that the U.S., U.K., Canada, and Australia (4) are the largest migrant receiving countries, supplementing their need of physicians with those from countries with weaker economies (5). These migrations in the medical area bring results especially against the healthcare services of the underdeveloped and developing countries, as well as serious unbalanced distribution problems. Docquier and Bhargava (6) remark that 12 out of 30 countries that were affected the most by the physician migration are the Sub-Saharan African countries, where the number of physician is very small. In addition to this, the

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estimation studies for the healthcare labor needs carried out by World Health Organization (WHO) indicate that the lack of the healthcare professionals of the developing countries is dramatic. It is emphasized that the present healthcare labor need in these countries cannot be met even if the healthcare professionals of these countries do not migrate (7). Therefore, these migrations, which have a serious effect on the health systems of the countries, have been taken into consideration both in terms of planning and developing the health policies and from ethical aspect by the researchers and policy makers for a long time (8,9).

It is also important to distinguish between permanent and temporary migrations to make benefit and harm comparisons of the physician migration and to form the migration policies for immigrant-receiving countries and countries of origin. The facts that migrating physicians do not have training costs and they can be employed more comfortably in the underdeveloped or less preferred regions improve the health output and make the immigrant-receiving countries advantageous (2,10,11). However, temporary migration causes the technology and information transfer from the developed countries, contributing to the development of both the healthcare sector and the country of origin in general. On the other hand, it is stated that the migrants are not inclined to return, when the chance of choosing is given. Therefore, implementing the incentives and enforcements to make the physicians return to their own countries is among the most important issues in the management of the health labor (7).

Why do the physicians migrate?

In the medical field, the brain drain is an issue with many reasons. However, it is stated that the physicians migrate to develop their careers and improve their social and economic status more in general (12,13). Moreover, the reasons such as the fact that the physician salaries are low compared to those in the private sector and western countries, the possibility that working in the rural areas is difficult and insecure, the fact that these rural areas are limited in terms of the social opportunities, and the difficulties in working conditions increase the attractiveness of the foreign countries (14). Even though it is thought that the salary difference among the countries is the most important factor prompting the physicians to the migration, the studies carried out reveal that it is not the only determinant, e.g. the physicians pay attention to ensuring a better future for their children.

Although it varies from country to country, generally the desire to increase the income and living standards, fast and easy access to the increasing technology, gaining experience, the general security and stability expectations, the persons own and his/her child's future and career development, better working conditions are important reasons regarding the emigration (3,4,15). Along with these advantages the developed countries offer, the policies developed in order to facilitate the international movement also encourage especially the young physicians to emigrate. The unlimited residence and work permit can be obtained with the Green Card practice in America and there is the chance of naturalization, too. In Europe, citizenship right is not given with the Blue Card practice, however the migrants have the same social rights as the citizens and earn a higher salary than the average salary of the country where they work.

Within the scope of the Health Transformation Program (HTP) launched in 2003 by the Turkish Ministry of Health (henceforth MoH), it is aimed to serve high quality healthcare services for everyone, wherever needed. However, when the level of human resources in health, which is one of the important indicators of the health status and the most important factor to be able to put HTP into practice compared to the OECD and WHO European Region countries, it is seen that the health labor participation in Turkey is extremely low. Moreover, in a study carried out, it is stated that 59% of the Turkish students who go abroad for educational purposes do not return (16). Furthermore, there are some studies indicating that Turkey is the 24th country that sends students abroad the most and among the top ten countries that have students in the universities in America the most (17). When these consequences are taken into consideration, the issue of physician migration, which will cause the lack of physicians and severe decrease in the scientific development in the country, is very important for Turkey and the policy makers.

This study is the first descriptive study that regards the opinions of the physicians, who have newly graduated from the faculties of medicine in Turkey and have not started working yet, about working or speciality studying in homeland or abroad. With this study, it is aimed to research the reasons that can affect the migration preferences and to provide a basis for developing alternative policies to diminish the physician migration.

METHOD

In line with the literature review regarding the physician migration and the outputs from the focus group discussions, the questionnaire was prepared. The preparation of the questionnaire was completely finished by carrying out a pilot study on a newly graduated group of physicians randomly chosen to test the intelligibility of the questions. The questionnaire is composed of two parts. The first part covers the demographic features, the second part covers the opinions regarding studying/working abroad.

The study was carried out between September 2009 and November 2009 in Turkey. All of the participants living in Turkey who recently graduated from the faculty of medicine in 2009 were included in this study. 3690 out of total 4753 physicians who graduated in 2009 (Response rate = 0.78) completed the questionnaire. The physicians completed the questionnaire in voluntary basis during their job application to MoH through internet. Therefore, there was no chance to investigate further the participants that did not response the questionnaire. The responses that the physicians gave were transferred to the access data base before the statistical analysis was done by developing a coding system.

The categorical (qualitative) variables were stated with frequencies and percentages. Variables which could be relevant to the desire to study or work abroad were analyzed through the logistic regression analysis. The odds ratios and 95% confidence intervals of all the explanatory variables were calculated. The variables of which p-value is equal to or less than 0.05 were accepted as statistically significant. SPSS 15 (SPSS, Chicago, IL, USA) program was used for the statistical analyses.

FINDINGS

Demographic properties of newly graduated physicians participating in the study are shown in Table 1. The ages of the recently graduated physicians participating in the study are between 22 and 35; and the median age is 24. Men constitute 52.5% of the physicians while women constitute 47.5%. It was observed that 38.7% of these physicians come from low-income families, 42.3% from middle-income families and 19.0% from high-income families. 54.6% of the physicians stated that they thought about studying (Specialty/Ph.D.) or working abroad regarding their profession. However 79.6% of the physicians stated that they did not make any attempts regarding studying/working abroad. 99.3% of the physicians

TABLE 1: Demographic properties of participants.

		Median (Min-Max)
Age		24 (22-35)
Gender	Female	1752 (47,5)
	Male	1938 (52,5)
Marital Status	Single	3535 (95,8)
	Married	148 (4,0)
	Divorced	7 (0,2)
Monthly income of his/her family	Low	1428 (38,7)
	Middle	1561 (42,3)
	High	701 (19,0)

speak English. However, only 12.6% of the physicians think that their English knowledge is advanced, 39.4% think it is good, 41.6% think it is medium level. 80.8% of the physicians participating in the study stated that they had never been abroad before. 51% of the physicians, who have been abroad, went abroad for vacation, 15.1% for a short-term education, 9.0% for internship. The ratio of the physicians who went abroad for a long-term education is 5.8%.

In general 70.2% of the physicians think that the working conditions are the most important factor regarding the desire to study/work abroad. Afterwards come the fact that there are more social opportunities abroad (19.8%), the salary is higher (6.3%) and the children are provided with more qualified education (3.6%). 96.2% of the physicians who think that the working conditions are the most important factor regarding the migration are willing to work/study abroad.

In the study, the logistic regression analysis was carried out to be able to understand to what extent which factors can affect the desire to study/work. Some variables which could be relevant to desire to study or work were included in the model. The results of the logistic regression analysis are in Table 2.

In Table 2, it is seen that the desire of the male physicians to work/study abroad is 1.5 times higher than that of their female colleagues ($p < 0.05$). It is seen that the foreign language level is statistically significant. Compared to the physicians whose foreign language level is low, the physicians whose level of foreign language is very good are 5.4 times more eager ($p < 0.05$) and those whose level of foreign language is good are 2.4 times more eager ($p < 0.05$) to

TABLE 2: The Results of the logistic regression analysis.

		B	S.E.	Wald	Sig.	Odds Ratio	95% C.I.for Odds Ratio	
							Lower	Upper
Sex	Male	0.290	0.145	3.986	0.046	1.337*	1.005	1.777
Foreign Language Level	Medium	0.597	0.262	5.200	0.023	1.816*	1.087	3.034
	Good	0.895	0.270	10.979	0.001	2.448*	1.442	4.158
	Very Good	1.687	0.380	19.691	0.000	5.403*	2.565	11,383
Foreign Country Past	Yes	0.297	0.229	1.686	0.194	1.346	0.859	2,109
Attempt	Yes	0.981	0.526	3.473	0.062	2.667	0.951	7.484
	Partial	1.271	0.353	12.976	0.000	3.564*	1.785	7,116
Friend abroad	Yes	1.224	0.218	31.571	0.000	3.400*	2.218	5,209
Monthly income of his/her family	Middle	-0.066	0.156	0.180	0.671	0.936	0.690	1.270
	High	-0.009	0.213	0.002	0.968	0.991	0.653	1.505
Salary expectation	3000-5000	0.143	0.215	0.444	0.505	1.154	0.757	1.758
	>5000	0.329	0.228	2.089	0.148	1.390	0.889	2.173
Birth place	2nd region	-0.309	0.203	2.303	0.129	0.734	0.493	1.094
	3rd region	-0.551	0.212	6.795	0.009	0.576*	0.381	0.872
	4th region	0.044	0.301	0.022	0.883	1.045	0.580	1.884
	5th region	-0.032	0.233	0.019	0.890	0.968	0.613	1.529
	6th region	-0.281	0.279	1.015	0.314	0.755	0.437	1.304
Constant		0.736	0.347	4.493	0.034	2.087		

* $p < 0.05$, Nagelkerke $R^2 = 0.121$, Hosmer Lemeshow $\chi^2 = 3.340$ $p = 0.911$

work/study abroad. It is seen that the development level of the provinces where the physicians were born, the monthly income level of his/her family or the salary levels that the physicians expect while working and whether the physician has been abroad do not affect their preference to work/study abroad ($p > 0.05$).

Compared to the physicians who have not made any attempts on working abroad, the physicians who have partially made an attempt are 3.5 times more inclined to migrate. However, it is seen that having made an attempt does not affect the migration preference.

The goodness of fit of the logistic regression model was examined with the Hosmer-Lemeshow test and H_0 hypothesis was not rejected due to the fact that the model is fitting ($p = 0.719$). The classification accuracy rate of the logistic regression model established with respect to the desire of the newly graduated physicians to continue their speciality education abroad is 88.6%.

DISCUSSION

The issue of the physician migration gains importance for the establishment of the health policies and labor policies all over the world. Especially, the migration of the physicians from the underdeveloped or developing countries, where the economy, technology and science are lacking and where the problems in the health sector are severe, to the developed countries brings about various discussions. Such economic problems as lack of physicians, unbalanced distribution of physicians, the fact that medical training is long and its cost are primarily included in these discussions (18). It is hard to determine whether the migrations are permanent or temporary. The general tendency to not return to homeland makes us think that the countries of origin are generally affected negatively by the migration (10,16). As in many countries, a record system regarding the physician migration has not been established in Turkey. The fact that there are not any reliable and systematic data sources is an obstacle to reveal the

present situation (19). That being said, some studies carried out regarding the brain drain in a general sense indicate that Turkey is among the countries sending students abroad the most (16,17). Because the rate of people not returning after going abroad even for educational purposes is high, going abroad to study or work was evaluated together in our study.

It is attention grabbing that more than half of the physicians participating in the study want to study/work abroad. This result could be related to the fact that they consider their education level to be inadequate and to the desire to access more advanced technology. It is thought that the preference of the physicians who want to go abroad to work could be caused by the fact that they have not taken official duty yet, there are many obscurities about life and work, their impressions for what they hear about or prejudices against the system and working abroad. In a similar study carried out on the practicing physicians who have started working recently, it was found out that 37.4% of the physicians are eager to go abroad (20). In the same study, it was found out that the rate of those who want to go abroad to study is 31.4%, whereas this rate is 32.2% for those who want to go abroad to work. This decrease in the migration preference indicates that their opinions could change after starting to work and being included in the system.

Researching the reasons of the physicians to go abroad is very important to decrease the physician migration or to turn it into an advantage. In the literature, there are many studies that determine these reasons and develop solution-oriented policies. In our study, it is seen that most of the newly graduated physicians prefer foreign countries because of the working conditions. In our country, which is far behind the other OECD countries in terms of the physician numbers per 1000 people (21), it is known that the work load of the physicians is much in parallel with this. Therefore, it is natural that the physicians consider the foreign countries as an alternative because of more comfortable working conditions. In this context, making arrangements to relieve the heavy work load of physicians and training an adequate number of physicians would be helpful to prevent the loss of healthcare labor participation in homeland. After improving the working conditions of the physicians, the other facts such as there are more social opportunities abroad, the salaries are higher and there are better education opportunities available for children can be taken into consideration for further improvement.

Stilwell et al. (14) state that the job opportunities, the salary differences and the working conditions have an important effect. In the study of Astor et al. (22) covering five countries, it was found out that the most important factor prompting the physicians to emigrate is the desire of having a high income. WHO and OECD state that this is not the only determinant. The result that the rate of the newly graduated physicians who think that the salaries are higher abroad affects the migration was found to be 6.3%. This rate indicates that the income comes first for the newly graduated physicians. Similarly, in another study carried out on the practicing physicians who have started working recently in Turkey, the salary difference ranks 3rd among the factors affecting the desire to emigrate (20). In another study, having a higher salary was almost at the bottom of the list in the migration factors in Turkey, while working in better conditions, high technology, access to resources and advanced training opportunities were main reasons for migration (23). In parallel with our study when these findings are also taken into consideration, it is seen that the high salary is not the most important factor for the physicians in Turkey, either. The fact that the salaries of the physicians in Turkey, especially the salaries of specialist physicians, are medium level compared to the average salaries of the physicians in the OECD countries (24), supporting that the income factor does not come first in the desire to migrate for the Turkish physicians.

The fact that the male physicians are more eager to work/study abroad compared to their female colleagues is thought to be related to traditional approaches such as the fact that women think more family-oriented, and hence, they abstain from living alone abroad. It is also attention grabbing that especially the physicians who have a relative to stay with when going abroad or who have made an attempt on working/studying abroad are more eager to migrate. The physicians who have been abroad before are thought to act in a clearer manner with respect to the desire to emigrate since they have the chance of comparing their own country with those countries visited. It can also be considered that reasons such as not being alone, adapting more easily and feeling safe underlie the fact that the physicians who have a relative to stay with when they go abroad are more eager to emigrate. Different reasons can underlie the fact that the physicians who were born in the 1st region, where the most developed cities are, and the physicians in the 5th and 6th regions, where relatively less developed cities are located, are

more eager to emigrate. It is thought that the physicians born in the developed cities could prefer foreign countries not to have a life below their own living standards or to live in similar and better standards. It can also be considered that these people living in these cities have the chance of going abroad more easily in terms of both their families and their own education, foreign language, socio-economic opportunities. On the other hand, it is thought that the physicians born in the underdeveloped cities may want to work in the places with higher standards because the living conditions are difficult in their own regions.

One of the important findings in this study is that even though the tendency to migrate is high, the number of the people making an attempt on this is less. While more than half of the newly graduated physicians are inclined to migrate, only 22.6% of them have partially or completely made an attempt. This rate for the physicians who have started to work recently is 24.6%. Even though this situation indicates that Turkey is not at a critical point in terms of the physician migration, it is recommended that the migration policies are reviewed and more comprehensive studies regarding the reasons of the migration are carried out.

THE LIMITATIONS OF THE STUDY

The fact that the study was carried out on the newly graduated physicians who are inexperienced in the career and work life, makes us think that the results express rather prejudices and opinions. It is important that the additional studies to be carried out in this context to the extend that covers those in the career life, the physicians who have emigrated and the other healthcare professionals. These outputs should be given importance because both the quality provision of the healthcare services and the migration of the qualified man power are important. Furthermore, a systematic migration record system should be established and information sharing regarding the migration should be provided quickly in both our country and the countries of origin. It is thought that critical information regarding the quality and size of the migrations can be provided and common policies could be established by this means.

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