

# A Study on the Push and Pull Factors Affecting the International Emigration Intentions of Turkish Physicians

## Türk Hekimlerinin Uluslararası Göç Niyetini Etkileyen İtici ve Çekici Etmenler Üzerine Bir Araştırma

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### Abstract

**Aim:** The number and distribution of health workers per capita are significant factors for countries to achieve their goals in the health sector. However, there is a global shortage of skilled health workers. The immigration of health professionals or their intention to emigrate is a critical problem, especially for source countries. This situation directly affects the access, equity, and quality of necessary health services. In this article, we discussed the intentions of physicians to emigrate and the factors that pull and push physicians, including the methods that can be applied.

**Method:** It was designed as a descriptive and cross-sectional study in accordance with the research problem. A total of 504 physicians from Turkey participated in the study. The data were collected using a personal information form and a scale consisting of "Push Factors, Pull Factors, Negative Impacts of Migration, and Positive Impacts of Migration". Mean and standard deviation were used in the study.

**Results:** The results indicate that physicians in Türkiye intend to emigrate. Also, physicians would prefer to emigrate to developed countries such as Germany, the USA, and England if they have the opportunity to leave Türkiye. Working and living conditions are the first factors pushing them, followed by the phenomenon of violence in healthcare. The participants think that if they emigrate, new physicians in Turkey cannot be replaced quickly, and this will further increase the heavy workload of their colleagues.

**Conclusion:** Considering these results, it is necessary to develop policies for trained healthcare workers to work in source countries and to reduce the level of the emigration tendency of health workers, especially in developing countries such as Türkiye. In particular, these policies should include micro and macro policies related to violence in healthcare and the improvement of working conditions. Otherwise, the effective, efficient, and interrupted delivery of health services may be disrupted.

**Keywords:** Turkish physicians, emigration, push and pull factors.

### Öz

**Amaç:** Kişi başına düşen sağlık çalışanı sayısı ve dağılımı, ülkelerin sağlık sektöründeki hedeflerine ulaşmalarında önemli etmenlerden biridir. Bununla birlikte, yetkin sağlık çalışanlarının sayısında küresel bir eksiklik söz konusu olup sağlık sistemlerindeki bu sorunun şiddeti ülkelerin gelir düzeyine göre farklılık göstermektedir. Sağlık çalışanlarının göçü veya göç etme niyeti özellikle kaynak ülkeler için kritik bir sorundur. Bu durum sunulan sağlık hizmetlerine erişimi, hakkaniyeti ve kaliteyi doğrudan etkilemektedir. Bu makale Türkiye'de nitelikli hekimlerin yurtdışına göç etme niyetleri ve hekimleri çeken ve iten etmenlerin belirlenmesini amaçlamaktadır.

**Yöntem:** Araştırma sorusuna uygun olarak tanımlayıcı ve kesitsel olarak tasarlanmıştır. Türkiye'den çalışan toplam 504 hekim çalışmanın örneklem grubunu oluşturmuştur. Veriler, kişisel bilgi formülü ile beraber "İtici Etmenler, Çekici Etmenler, Göçün Olumsuz Etkileri ve Göçün Olumlu Etkileri" içerikli ölçek kullanılarak toplanmıştır. Araştırma verilerinin değerlendirilmesinde, sayı, ortalama ve standart sapma kullanılmıştır.

**Bulgular:** Araştırma bulguları, Türkiye'deki hekimlerin yurtdışına göç etme niyetinde olduğunu göstermektedir. Ayrıca hekimler Türkiye'den ayrılmaya olanağı bulduklarında, Almanya, Amerika, İngiltere gibi gelişmiş ülkelere göç etmeyi istediklerini bildirmiştir. Kendilerini göç etmeye zorlayan iten etmenler arasında; öncelikle çalışma ve yaşam koşulları belirtilirken, bunu sağlıkta şiddet olgusu izlemektedir. Katılımcılar, göç etmeleri durumunda Türkiye'de yeni hekimlerin yerlerini hızla dolduramayacağını ve bunun meslektaşlarının ağır iş yükünü daha da artıracığını düşünmektedirler.

**Sonuç:** Çalışmanın sonuçları dikkate alındığında; özellikle Türkiye gibi gelişmekte olan ülkelerde sağlık çalışanlarının göç eğilimini azaltmak ve kaynak ülkelerde çalışmak için eğitimli sağlık çalışanlarına yönelik politikaların geliştirilmesi gerekmektedir. Bu politikalar özellikle sağlıkta şiddet ve çalışma koşullarının iyileştirilmesi ile ilgili geneli ve özel kapsayan politikaları içermelidir. Bu iyileştirmelerin yapılmaması durumunda, sağlık hizmetlerinin etkin, verimli ve kaliteli sunumu kesintiye uğrayabilecektir.

**Anahtar Sözcükler:** Türk hekim, göç, iten ve çeken etmenler/faktörler.

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## Introduction

The number and distribution of health workers per capita are very important for countries to achieve their health goals (Asamani et al., 2019; Afriyie et al., 2019). Increasing the number of health workers per capita can be achieved through national sources as well as through the employment of health workers at the international level. However, there is a global shortage of skilled health workers, and the severity of this problem differs between health systems in low- and middle-income countries and high-income countries (Aluttis et al., 2014). Many high-income countries adopted policies that support migration from abroad to increase the number of skilled health workers and fill the shortage. (Yakubu et al., 2022). According to the report by Siyam and Roberto (2014), a high proportion of health workers in countries such as New Zealand, Australia, Canada, and Ireland are skilled health workers from other countries. This situation is especially worrying for countries that are sources of global migration of healthcare workers (Crisp & Chen, 2014). In this context, Türkiye is an important source country for the training of healthcare professionals and their migration to other countries. The migration of qualified health workers may cause some problems for the Turkish health system in the short and long term. The reason for this is that it currently has skilled health workers (physicians, nurses, etc.) far below the Organisation for Economic Co-operation and Development (OECD) average. The number of physicians per 1,000 people in OECD countries is 3.6. In Türkiye, the number of physicians per 1,000 people is 2.0. Although the number of physicians per 1,000 people has increased by 0.7 percent since 2000, it is clear that there is still a long way to achieve an effective, efficient, and sustainable healthcare service in Türkiye. In addition, the presence of skilled healthcare professionals in the ongoing Covid 19 pandemic and its fight since 2019 has become more important for countries. It is essential to protect and improve the health of society in cases that stop and affect all life, such as pandemics. Unlike normal times, health services are provided outside the routine during these periods.

In the literature, theories such as Cumulative Causation (Myrdal, 1939), Network Theory, Institutional Theory (Massey et al., 1993), Push-Pull Model (Grigg, 1977), and Transnational Migration Theory (Schiller et al., 1995) are available to explain the continuation of international migration. As implied in the economic models of migration, one of the most well-known theoretical concepts in migration studies is the push-pull model for explaining the causes of migration (Ravenstein, 1885; Lee, 1966). The push-pull model consists of a set of negative or positive factors that push and attract migrants from source countries to destination countries (Bilsborrow et al., 1984). Push factors include economic, social, and political difficulties in source countries, while pull factors include the comparative advantages of destination countries that attract immigrants from source countries. The combination of push and pull factors then determines the size and direction of the flow (Dzvimbo, 2003; El-Khawas, 2004). According to Everett Lee's theory (1996), migration is affected by push and pull factors as well as the selective behaviour of individuals (Faridi, 2018). Although physician immigration is especially sensitive to visa restrictions, it can be advantageous in terms of recognition of diplomas, points-based systems, tax reductions for immigrants, and obtaining permanent residence status (Adovar et al., 2021). In their study, Adovar et al. (2021) concluded that immigration increased by 132% when countries started to implement a point-based system, by 124% when they offered permanent residency, and by 65% when tax reductions were applied.

The figures and rates of physician migration in Turkey, which are announced through official sources, cannot be determined. However, it is seen that the number of documents required to immigrate, which must be obtained from the Turkish Medical Association when going abroad, has reached 4.667 in the last five years. More importantly, the number of applications has increased over the years (Harman and Özer, 2022). This situation may indicate that physicians are preparing to migrate. The migration of physicians will negatively affect the healthcare system in many ways. For this reason, in this study, the migration intentions of physicians, which are essential for the Turkish healthcare system, are determined on the basis of push and pull factors. It is thought that knowing these factors may lead policymakers to take the right steps in order for physicians to continue working in Türkiye and to abandon their migration intentions.

## Method

**Study Design and Sample Collection:** It was designed as a descriptive and cross-sectional study in accordance with the research problem. The research population consists of 171,259 physicians. The probabilistic sampling method was used for sample selection (Karagöz, 2014). Accordingly, the sample size (i.e., reached between 01/01/2022 and 01/03/2022) is 384 which represents the research population at the 95% confidence interval. However, we reached 504 physicians within

the scope of this research. The participants in the study were reached online. Participants work at different universities and public hospitals. A total of 64 different institutions were included. While 24.1% of the participants work in public hospitals, 75.9% of them work in training and research hospitals. In addition, 53.4% of the participants were men and 46.6% were women. The average age of the participants was 34.80±8.20.

**Data Collection Tools:** A questionnaire, consisting of four subscales and 30 statements regarding the demographic characteristics of the participants (age, gender, and the institution where they work), was used in this study. The responses were determined using a 5-point Likert scale, ranging from 1=strongly disagree to 5=strongly agree. Push Factors, Pull Factors, Negative Impacts of Migration, and Positive Impacts of Migration dimensions of the subscales were developed by Asabir (2008). The statements of the scale were first translated into Turkish by the researchers. Afterwards, the researchers carefully checked the compatibility of the scale with the original scale, which was translated back into English. The Cronbach's  $\alpha$ , exploratory factor analysis (EFA), and confirmatory factor analysis (CFA) were performed to test the validity and reliability of the scales used in this study. The Cronbach's alpha coefficient of the scale was found to be 0.88.

EFA was conducted to ensure the validity of the scale. In the EFA, the suitability of the data was examined using the Kaiser–Meyer–Olkin (KMO) coefficient and Bartlett's test of sphericity (BTS). According to the EFA results, the distribution of the translated scale was consistent with the original. The KMO values of the scales were consistently above 0.890 and the BTS results were significant. The total variance was determined to be 52.364. Push Factors accounted for 21.62% of the total variance, Pull Factors for 11.85%, Negative Impacts of Migration intention for 9.65%, and Positive Impacts of Migration for 9.62%. A confirmatory factor analysis (CFA) was performed in the second phase of the validity analysis. Accordingly, the fit indices of the scale (RMSEA=0.075; RMR=0.073; NFI=0.905; CFI=0.947; GFI=0.852; and AGFI=0.883) showed that the scale can be used in the study.

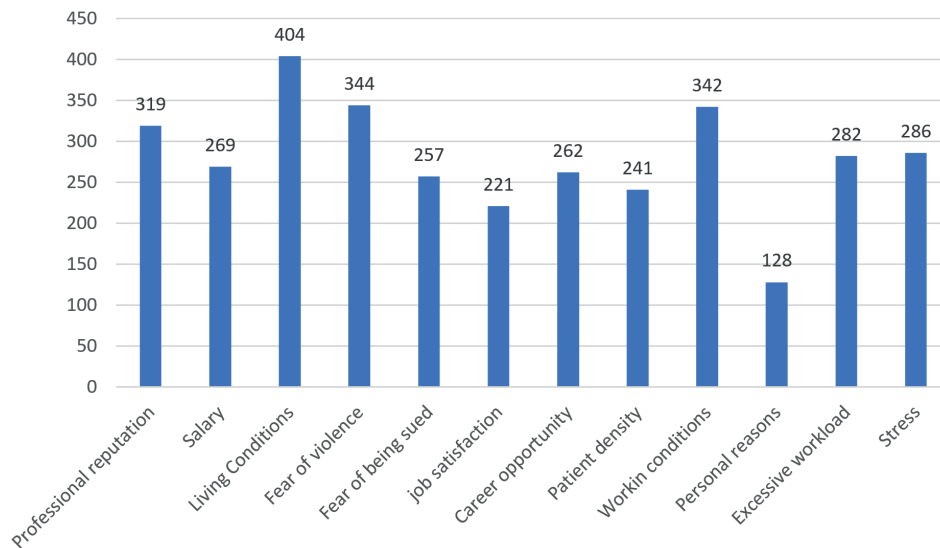
Each sub-dimension allows the measurement of different situations related to the migration of the participants. For example, the push factor subscale consists of 10 items. The push factors consist of pushing the participants from source countries to international migration. The pull factor subscale consists of five items, measuring the factors that attract the participants to migrate to the destination countries. On the other hand, the negative impacts of the migration subscale consist of 6 items, focusing on how the source country may be affected after the migration of the participants. The positive impacts of the migration subscale consists of 7 items including statements about people thinking their migration will be beneficial.

**Statistical Analysis:** In the data analysis, descriptive statistical methods were performed by using the SPSS 22.0 (IBM Statistical Package for Social Sciences-SPSS; Armonk, NY, USA) statistics program.

**Ethical Consideration:** The Sakarya University approved and consented to the questionnaire forms, numbered 61923333-050.99-113155.

## Results

Firstly, the participants were asked to rank the countries where they would like to immigrate depending on their own preferences. Germany is the most preferred country, preferred by 33% of the participants. The United States of America (USA) is the second most preferred country by 17% of the participants. When the participants were asked which country would be their second choice for immigration, they preferred Germany (18.3%) and England (18.1%). The ranking of the factors indicating the reasons for the physicians' intention to immigrate is shown in Figure 1. It is found that the living conditions are the main reason for the physicians' intention to immigrate (n=404), followed by the fear of being exposed to violence in the institutions where they work (n=344) and working conditions (n=342).



**Figure 1. The reasons for migration**

**Table 1. The mean and standard deviation of push factors (N:504)**

I decided to leave Türkiye and work abroad because of .....	Mean	Std. Deviation
The level of my basic salary	4.44	0.81
Difficulty to acquire my own house while working	4.46	0.87
Difficulty to find a work placement after further training	2.23	1.11
Stress due to heavy workload	4.55	0.76
The level of equipment and supplies in my place of work	3.49	1.02
Difficulty to get management approve my study leave	3.19	1.11
Poor financial compensation after I go through an excess workload	4.67	0.70
Poor conditions of service	4.41	0.83
Lack of management recognition for my good work	3.76	1.06
Inadequate supervision at the health facility where I worked	3.84	1.05

The main factors that push the participants to migrate were excessive workload with inadequate wages (Mean=4.67, SD=0.7), fixed incomes (Mean=4.44, SD=0.81), and difficulties in buying properties such as houses (Mean=4.46, SD=0.87). Among the investigated factors, the difficulty in finding a job after education (Mean=2.23, SD=1.11%) was the least important concern for the physicians. The mean and standard deviation of the push factors are presented in Table 1.

**Table 2. Mean and standard deviation of pull factors (N:504)**

I was attracted to work abroad because of.....	Mean	Std. Deviation
Better safety and security measures at the workplaces in abroad	4.41	0.77
My desire to experience the health delivery system in abroad	4.00	1.02
The desires of my family members to support me travel abroad	2.47	1.23
The attractive salaries paid in abroad	4.32	0.87
The opportunity for me to acquire modern knowledge to rendering health care services	4.15	0.94

Accordingly, the most attractive statements about immigration for the participants were higher salaries and job security practices (Mean=4.41, SD=0.77). In contrast, the least attractive statement was the support that participants receive from their families regarding immigration (Mean=2.47, SD=1.23). The mean and standard deviations for pull factors are given in Table 2.

**Table 3. Mean and standard deviation of negative impacts (N:504)**

My absence at work in Türkiye had a negative impact as a result of.....	Mean	Std. Deviation
Difficulty in replacing me within a short period	2.89	1.18
The loss of revenue to the health sector as a result of my training cost	3.09	1.31
The use of semi-skilled health workers to perform my work	3.88	1.11
Extra workload that my working colleagues would have to manage	3.73	1.13
The difficulty for the health sector to staff the deprived areas	3.93	1.05
The decrease in the quality of health care service	3.67	1.05
Difficulty in getting appropriate skill-mix to deliver health care	3.47	1.07

Participants were asked to what extent they agreed or disagreed with the statements (shown in Table 3) indicating that their thought might be negatively affected after emigrating from Türkiye. According to this, the main reasons were personnel shortage in the deprived regions of the health sector after their migration (Mean=3.93, SD=1.05) and the concern of semi-skilled people taking over their duties (Mean=2.89, SD=1.18). The least agreed statement was the possibility of filling the gap they have left in a short time (Mean=2.89, SD=1.18) (Table 3).

**Table 4. Mean and standard deviation of positive impacts (N:504)**

I have benefited from working abroad because of.....	Mean	Std. Deviation
My ability to remit money to support my family upkeep	4.49	0.84
The opportunity for me to understand and use of modern equipment to deliver health care	4.25	0.90
The opportunity to purchase my own vehicle	4.51	0.87
The opportunity to put up my own house	4.46	0.90
More adequate financial compensation for the extra workload done	4.61	0.67
The availability of adequate supervision that enhances my ability to perform difficult task	4.22	0.90
The opportunity for me to now transfer the knowledge acquired back home	3.40	1.31
The opportunity for me to now invest my financial capital back home	4.15	0.90

Participants were asked what positive things await them if they migrated. According to the findings, they thought that they will get what they deserve in return for their extra workload (Mean=4.61, SD=0.67) and that they can afford properties (e.g. house and car) (Mean=4.51, SD=0.87). The statement with which the participants agreed the least was the idea of bringing the information they acquired from the countries they migrated to back to Türkiye (Mean=3,40, SD=1,31) (Table 4).

## Discussion

It was found that the countries most preferred by the participants were Germany and the USA. Also, the second most preferred countries were Germany and England. Germany is a country to which the citizens of the Republic of Türkiye have immigrated for a long time (Tekin, 2007). Moreover, the physicians in Türkiye may already have close and distant relatives in this country due to immigration from Türkiye to Germany in the 1960s and 1970s. In parallel, the OECD 2007 International Migration Perspective report also indicates that the three countries to which where the physicians and nurses who have completed their education in Türkiye emigrate the most were the USA (63%), Germany (28%), and England (6%), respectively (OECD, 2007). The results of the study confirm that skilled health workers prefer similar routes although 14 years have passed. Adovor et al., (2021) followed the migration movements of physicians over a 24-year period in their research. The researchers state that there are severe migration movements from small island states and Central Asian countries to Western Europe. It can be stated that there are similar results in Türkiye. Participants intend to immigrate to the Americas and most of the Western European countries. After the country preferences, the participants were asked to rank the critical factors in their intention to migrate. The most important factors were living conditions, fear of violence, working conditions, and professional reputation. According to life satisfaction surveys reported by the Turkish Statistical Institute (2021), Turkish household income satisfaction was detected to decrease from 64.1% to 57.2% between 2011 and 2021. In addition, the general happiness level decreased by 12.8% between 2011 and 2021. Although this situation varies according to income status differentiations or professionals in various sectors, it gives an idea about the general perspective experienced in Türkiye. It is seen that the participants have similar attitudes towards migration. One of the most important factors was the fear of violence by physicians. Although Türkiye has initiated critical political and legal

processes on violence against health workers for many years, violence in healthcare is a significant problem that has not yet been fully resolved. Studies in the literature show that a large proportion of healthcare professionals have been exposed to violence (Hıdıroğlu et al., 2019; Yücens and Oğuzhanoğlu, 2020). Studies indicate that health workers who experienced violence tend to migrate more than health workers who have not experienced workplace violence. Those who have not directly experienced violence directly may have a fear of violence when they witness violence against their colleagues (Akbolat et al., 2021). Therefore, workplace violence in the health sector is a significant parameter affecting the tendencies of physicians to immigrate, because most of the physicians, whether they have experienced violence or not, are affected by violence at various levels.

Workplace violence has adverse effects such as mental health problems (Havaei, 2021), burnout (Fu et al., 2021), absenteeism from work, a decrease in the quality of professional life (Guay et al., 2022), and job dissatisfaction (Dursun and Aytaç, 2021). Following the pandemic, significant changes have occurred in the working conditions of healthcare workers. With these changes, it has been determined that physicians encounter problems and risks, such as the lack of regulations on personnel rights, and the necessity of reviewing the definitions in the legal regulations related to high-risk units (Kıroğlu, 2020). Inadequate working conditions can cause an increase in stress, anxiety, and stress levels in healthcare workers (Polat and Coşkun, 2020). The following important factor was identified as professional reputation. Professional reputation is among the important factors for the participants, who want to emigrate to countries with higher professional reputations. No research has been found in the literature directly on the reputation of medicine. Further research on its processes and causes is needed to better understand the findings.

According to the participants, the most important factors pushing migration are "Poor financial compensation after I go through an excess workload" and "Difficulty to acquire my own house while working". On the other hand, the lowest factor is the expression of "Difficulty to find a work placement after further training." Academic studies also indicate an increase in the workload of physicians, especially during the pandemic (Yakut et al., 2020). It is thought that the high workload of physicians is not the only reason for migration, because they have been practicing their profession for many years with similar workloads. In fact, there has been an increase in the number of physicians per patient in the last 15 years in Türkiye (OECD, 2016). In this case, it is thought that the excessive workload, together with other factors, stimulates the intention to migrate. The next push factor was determined as the difficulty which physicians experience to afford properties. It can be stated that health workers have been adversely affected by the recent global and Turkish economic crises, and their purchasing power has decreased. According to 2020 data, the purchasing power in Türkiye is lower than the average purchasing power in European countries (TÜİK, 2020). The least agreed statement by the participants was that they have difficulties in finding a job and getting training. This is due to the fact physicians in Turkey are required to perform compulsory service after both basic medical education and specialization training (Law No. 2514).

The statement that attracted the participants the most was "Better safety and security measures at the workplaces abroad.". The statement they least agreed with was "The desires of my family members to support my travel abroad." These results support the driving factors and reasons for emigrating. Participants intend to emigrate as an escape route from unresolved problems of violence. In the final step, the participants were questioned whether it would have a positive impact on them after emigrating and how it would negatively affect Türkiye. While the participants stated that Türkiye will have difficulty in meeting the shortage of physicians to serve, they think that Türkiye will not be able to employ new physicians in the short term if they emigrate. These results are expected considering that training a specialist physician and starting work takes a long time.

On the other hand, the participants think that emigration is appealing as they can buy properties (e.g. houses and cars) when they work extra. Also, the participants see a low probability of returning to Türkiye with the information they have obtained from the countries to which they consider migrating.

## Conclusions and Recommendation

The results indicate that physicians in Türkiye have the intention to emigrate. Also, physicians would prefer to emigrate to the developed countries, such as Germany, the USA, and England if they had the opportunity to leave Türkiye. Working and living conditions are the first factors pushing them, followed by the phenomenon of violence in health. Physicians think that new physicians cannot be trained quickly in Türkiye after their migration, which will further increase the intense workload of their colleagues. Considering these results, it is necessary to develop policies for trained healthcare workers to work in source countries and to reduce the level of migration tendency of health workers, especially in developing countries such as Türkiye.

In particular, these policies should include micro and macro policies related to violence in health care and the improvement of working conditions. Otherwise, the effective, efficient, and uninterrupted provision of health services may be adversely affected.

**Ethics Committee Approval:** Sakarya University Ethics Committee approval was obtained (Number: 61923333-050.99-113155).

**Conflict of Interest:** Not declared.

**Funding:** None.

**Informed Consent:** Informed consent of the participants were obtained.

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