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Examination of The Attitudes of Assistant Physicians to Brain Drain In Health Services

Pelinsu Buket DOĞANYIĞIT* Elif DIKMETAŞ YARDAN**

*Ondokuz Mayıs University, Faculty of Health Sciences, Department of Health Management, Samsun, Turkey, ORCID Number: 0000-0002-5108-473X

** Ondokuz Mayıs University, Faculty of Health Sciences, Department of Health Management, Samsun, Turkey, ORCID Number: 0000-0002-8300-8715

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Abstract

Aim: The aim of this study is to determine the attitudes of resident physicians towards brain drain and to examine whether attitudes towards migration make a difference on the socio-demographic characteristics of the participants.

Methods: As a data collection tool, the Attitude Scale Towards Brain Drain developed by Öncü et al. (2018), a questionnaire form containing questions about the socio-demographic characteristics of the participants, their occupations and their evaluations about health brain drain were used. The research was carried out with 232 assistant doctors working in a university hospital serving in Turkey. Data were collected using face-to-face survey method with healthcare professionals. In the analysis of the data, descriptive statistical methods, t-test for independent samples and one-way analysis of variance (ANOVA) were used. The results were evaluated within the 95% confidence interval.

Corresponding author: Pelinsu Buket Doğanyiğit, e-mail: pelinsubuket.doganyigit@omu.edu.tr

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Results: According to the results of the study, it was found that 67.7% of the residents wanted to immigrate to another country. There is no statistically significant difference between the participant's gender, age, marital status, income, branch, working hours and years, and brain drain attitudes.
Conclusion: It has been found that the occurrence of violence in health increases health migration in our country and migration will be prevented by creating appropriate working hours and conditions.
Keywords: Physicians, attitude, brain drain.

INTRODUCTION

Throughout history, people have migrated to different regions and countries for various reasons. The concept of migration is defined by the Turkish Language Association (TDK) as individuals or communities going to another place from where they live for financial, political, religious, social and social reasons (https://tdk.gov.tr). Since the early 1950s, the migration of qualified people has gained importance. The migration of qualified, trained workforce to other countries is called brain drain (Tezcan, 2000). Brain drain is the departure of scientists and specialists with advanced knowledge and equipment from their home countries to settle and work abroad (https://tdk.gov.tr/).

Health workers are at the top of the ranking with the highest brain drain (Aluttis et al., 2014). The health problems that arise in the globalizing world increase the demand for health workforce (Sell and Williams 2020). Therefore, the migration of health professionals is becoming an important issue today (Bimal et al., 2016). Healthcare workers are migrating from low and medium developed countries to developed countries (Pantenburg et al., 2018). As a result of this situation; there are push and pull factors that affect the migration of health professionals (Rutten, 2009). Attractive factors are the factors that the country of immigration encourages the individual. Favorable working and living conditions, high income, better education and career opportunities and religious/political freedoms are among the attractive factors (Bang and Mitra 2011; Boros et al., 2022). The repulsive factors include the conditions which are related to the sending country leading to migration, and affect the decision of the individual to leave his/her own country. Low income, poor working conditions and heavy workload, inadequate career opportunities, lack of reputation of healthcare professionals, being unsure about the future, security issues, political and social problems are considered repulsive factors (Bell et al., 2015; Pol et al., 2019).

The health brain drain has various effects in terms of sending and receiving countries. From the point of view of the sending country; it causes a decrease in the number of health professionals

and labor shortages, disruption of health services and limited access to services, a decrease in quality, and higher dissatisfaction (Asadi et al., 2018). As a result, brain drain leads to loss of qualified brain power (Kizito et al., 2015). However, it contributes to maintain a health workforce demanded by the receiving country at a lower cost (Buchan, 2008).

The study aimed to determine the attitudes of the assistant physicians in health services towards brain drain, and to reveal whether their socio-demographic characteristics were effective. In the review, research on brain drain in healthcare is limited, and thus, the study is considered to contribute to the literature.

LITERATURE REVIEW

Studies show that there has been an increase in physician migration in Turkey in recent years. The 2022 study report of the Turkish Medical Association includes the distribution of the number of physicians who received documents to work abroad. According to this report; It was stated that it increased 40 times 10 years ago and 2 times compared to the previous year (Turkish Medical Association, 2023). In the 2024 report of the Turkish Medical Association; It was reported that the number of physicians receiving a good conduct certificate was 3,015 in 2023 and that 681 physicians applied to receive a good conduct certificate in the first four months of 2024 (Türk Tabipler Birliği, 2024). Uğur (2022) concluded that 51.6% of assistant physicians want to receive specialist training abroad and 55.3% want to work abroad (Uğur, 2022). In another study, 84% of assistant physicians stated that they were considering going abroad within one to five years (İstanbul Ekonomi Araştırma, 2022). Eser et al. (2022) stated that 70.7% of students studying at medical faculty want to continue their career abroad and 60% of them want to stay abroad permanently (Eser et al., 2022). Kaya et al. (2023), found that 77.5% of medical school students who participated in the study were considering working abroad in the future (Kaya et al., 2023).

In the study conducted by Karaşin and Karagöz (2023), it was found that factors such as social conditions, personal preferences, national sentiment, the search for opportunities abroad, and negative thoughts influence the brain drain of physicians (Karaşin and Karagöz, 2023). In a study by Mollahaliloğlu et al. (2014) examining the attitudes of medical students towards brain drain, it was found that 70% of the participants emigrated due to unfavorable working conditions (Mollahaliloğlu et al., 2014). It has been stated that medical students who plan to study abroad are considering returning to their country if conditions in the country improve (Güner et al., 2024). In

another study; It was observed that there was no significant difference between medical faculty students' gender, age, income level and region of residence and their perceptions of brain drain. It has been observed that brain drain perceptions vary depending on various factors, including the students' class, foreign language level, desire to work in rural areas, the health system and the society's perspective on physicians. The study found that medical school students are seriously prone to brain drain. It has been found that the reason for this situation is due to the problems experienced in the country and the lack of opportunities (Filiz et. al, 2022). Therefore, it is important to determine the factors affecting brain drain and take the necessary precautions.

1. RESEARCH METHODOLOGY

Sampling And Data Collection: The universe of the study consists of 580 assistant physicians working at a university hospital located in the Turkey. By using the sample size calculation formula, the number of samples representing the universe was found 232 at a confidence interval of 95% (Bal, 2001; Karagöz, 2014). 232 assistant physicians working in the institution were reached between April 22 and June 3, 2022. The data were obtained using the simple random sampling method and through face-to-face interviewing.

Data Collection Tools: A questionnaire consisting of three parts was used as a data collection instrument. The first part of the questionnaire included questions aimed at determining the socio-demographic characteristics of the assistant physicians. In the second part, the participants were asked about their occupational and brain drain related opinions. The last part included the "Attitude Scale towards Brain Drain", development and Turkish validity and reliability of which were performed by Öncü et al. (2018). The one-dimensional and two-component [repulsive and attractive factors] structured scale consists of 16 items. It includes two negative statements (items 3 and 15). Each item is rated on a 5-point Likert chart.

Data Analysis: The data obtained in the study conformed a normal distribution. Therefore, descriptive statistical methods (mean, standard deviation, frequency, percentage), independent samples t test and one-way analysis of variance (ANOVA) were used in the evaluation of the data. Analyses were performed at a confidence interval of 95% and a significance level of $p<0.05$. The analysis of the data obtained was made using the IBM SPSS Statistics 25.0 program.

Ethical Approval: Ethical approval was received from The Social and Human Sciences Research Ethics Committee of a university in Turkey [Dated: 25.03.2022, No: 2022-222], and necessary permissions were received from the health institution where the study was conducted [E-19054817-605.01-234335]. Additionally, the study was conducted in accordance with the principles of the Declaration of Helsinki.

2. FINDINGS

Of the assistant physicians participating in the study, 49.1% (n=114) were female and 50.9% (n=118) were male. 29.3% (n=68) were aged 27 and below, 46.1% (n=107) were aged between 28 and 30, and 24.6% (n=57) were aged 31 and over. 49.6% (n=115) of the participants were single and 50.4% (n=117) were married. Given the income level, %18.5 (n=43) had an income of 10000 TL and below, while it was 10001-15000 TL for 29.3% (n=68), 15001-20000 TL for 21.6% (n=50), 20001-25000 TL for 16.8% (n=39), and 25000 and above for 13.8% (n=32). 16.4% (n=38) were branch in fundamental medical sciences, 58.2% (n=135) were branch in internal medical sciences, and 25.4% (n=59) were branch in surgical medical sciences. When the duration of professional experience of the participants were examined, 27.6% (n=64) had one year or less experience, 45.3% (n=105) had 2-3 years of experience, and 27.2% (n=63) had four years or more experience. Considering the weekly working hours, 29.7% (n=69) were working 40 hours and less, while it was 41-65 for 24.6% (n=57), 66-90 for 26.3% (n=61), and 91 and above for 19.4% (n=45) (Table 1).

Table 1. Demographic characteristics of participants

	Type	Number	%		Type	Number	%
Gender	Female	114	49.1	**Professional Experience**	≤1 year	64	27.6
	Male	118	50.9		2-3 years	105	45.3
Age	≤27	68	29.3		≥4 years	63	27.2
	28-30	107	46.1	**Working Hours**	≤40	69	29.7
	≥31	57	24.6				
Marital status	Single	115	49.6		41-65	57	24.6
	Married	117	50.4		66-90	61	26.3
					≥91	45	19.4
Branch	Fundamental Medical Sciences	38	16.4		≤10000	43	18.5

	Internal Medical Sciences	135	58.2	**Income Level**	10001-15000	68	29.3
	Surgical Medical Sciences	59	25.4		15001-20000	50	21.6
					20001-25000	39	16.8
					≥25001	32	13.8

When the assistant physicians were asked about their satisfaction with their working environment, it was found that 56.5% (n=131) were satisfied, and 43.5% (n=101) were dissatisfied. 60.8% (n=141) stated that they enjoy their job, while 39.2% (n=91) stated the opposite. Considering the status of leaving the profession, it was found that 69.8% (n=162) were not willing to leave their profession, while 30.2% (n=70) stated the opposite. It was determined that 67.7% (n=157) wanted to emigrate to another country, and 32.3% (n=75) preferred to stay. Another finding obtained from the study was that 85.8% (n=199) stated that migration could be prevented in the health sector, while 14.2% (n=33) stated that it could not be prevented.

The vast majority of the participants (99.1%, n=230) were stated to believe that the measures taken to prevent the migration of health professionals in Turkey were not sufficient. When the participants were asked about the factors affecting the health brain drain in Turkey, 43.9% (n=102) mentioned the presence of adverse working conditions, excessive workload and long working hours, low wages, insufficient personal rights, 29.4% (n=68) mentioned malpractice, lack of health policies and violence in health, 17.7% (n=41) mentioned decrease professional dignity and 9% (n=21) mentioned the factors of experiencing future anxiety. The participants were asked to evaluate the negative situations that migration would lead to.

The answers given by the participants are as follows; 66.8% (n=155) of them stated that there will be problems in the quality of health services and 33.2% (n= 77) of the negative situations in the health system, difficulties in accessing health, public health will be adversely affected. When responses regarding the practices that need to be performed to prevent brain drain in health were examined respectively, 25% of the assistant physicians (n=58) mentioned the creation of appropriate working hours and conditions, while 15.1% (n=35) advocated the adoption of effective and continuously functioning health policies, 9.9% (n=23) advocated increasing the necessary

enforcements for violence in health, and 9.9% (n=23) advocated reviewing and improving personal rights. 9.5% (n=22) of the participants stated the necessity of improving wages, while 8.6% (n=20) mentioned increasing professional reputation, 4.3% (n=10) mentioned improving the quality of medical education, and 3.9% (n=3) mentioned the regulation of malpractice lawsuits in order to take the necessary measures. Frequency distributions of the responses were performed.

It was found that the majority of the participants agreed to the statement “I believe that working abroad will improve my living standards" (50.9%, n=118). 47.4% (n=110) completely agreed to the statements “I would like to live in another country where I can be away from political pressures." and “I would like to live in another country where I can feel safer". 46.1% (n=107) completely agreed to “I would like to work in another country where I would not worry about the future”, while 45.7% (n=107) completely agreed to "I would like to live in a country with more freedom of thought". 41.4% (n=96) agreed the statement “I believe that working abroad will make me happy.", while 40.9% (n=95) completely agreed to “If I were to do this job in another country, I would have a more enjoyable working life.", 40.1% (n=93) were undecided on the statement “Although I hear about negative experiences, I don't give up the idea of living abroad.”, 39.2% (n=91) agreed to “I believe that living abroad will make my life easier.", and 35.8% (n=83) agreed to “I'm not interested in news on living abroad". 34.9% (n=81) of the participants completely agreed to “Since I have enough opportunities to get a career in my country, it's not necessary for me to go abroad.”, 34.1% (n=79) were undecided on “I can endure the difficulties I may face in order to work abroad.", 32.8% (n=76) agreed to "I would like to work abroad as I can earn more money.” and 32.8% (n=76) were undecided on "I believe that every minute I spend in this country is wasted". It was found that 28% (n=65) of participants agreed with the statement “Job advertisements abroad attract my attention” and 28.4% (n=66) completely agreed with the statement “I research the living/working acceptance criteria of countries for foreigners.”

The mean and standard deviation values of the participants' opinions related to the scale were shown in Table 1. When Table 1 was examined, it was found that the overall score average of the scale was 3.72±0.900. Consequently, assistant physicians were found to have high level of attitude towards brain drain. The highest score was obtained from the statement “I believe that living abroad will make my life easier." (4.21±1.077). The answer "I believe that every minute I spend in this country is wasted." (2.98±1.184) was found to have the lowest value (Table 2).

Table 2. The evaluations of participants' attitudes towards health brain drain

	Mean	Standard Deviation
I believe that living abroad will make my life easier.	3.75	1.212
I would like to work abroad as I can earn more money.	3.69	1.247
Since I have enough opportunities to get a career in my country, it's not necessary for me to go abroad.	3.81	1.199
If I were to do this job in another country, I would have a more enjoyable working life.	3.97	1.158
I believe that every minute I spend in this country is wasted.	2.98	1.184
I believe that working abroad will make me happy.	3.69	1.055
I would like to work in another country where I would not worry about the future.	4.08	1.142
I believe that working abroad will improve my living standards.	4.21	1.077
I would like to live in another country where I can be away from political pressures.	4.03	1.246
Job advertisements abroad attract my attention.	3.53	1.220
I would like to live in a country with more freedom of thought.	4.08	1.137
I research the living/working admission criteria of countries for foreigners.	3.56	1.233
I would like to live in another country where I can feel safer.	4.03	1.204
I can endure the difficulties I may face in order to work abroad.	3.40	1.172
I'm not interested in news on living abroad.	3.84	1.104
Although I hear about negative experiences, I don't give up the idea of living abroad.	3.02	1.124
Attitude Scale towards Brain Drain	**3.72**	**0.900**

In order to determine whether there was a statistical difference in brain drain attitudes according to the socio-demographic characteristics of the participants, independent sample t-test and one-way analysis of variance (ANOVA) were conducted. As a result of the analyses, there was no significant difference in the participants' attitudes towards brain drain in terms of gender, marital

status, age, income, branch, duration of professional experience and working hours variables ($p>0.05$).

3. DISCUSSION AND CONCLUSION

The departure of skilled workforce leads to a decrease in the country's human capital, the rate of financial and social growth, and an increase in inequality and poverty. In addition, poorly managed migration of health professionals causes great damage to the health system. Therefore, the international migration of health professionals has become an important issue on health policy in recent years (Forcier et al., 2004).

As a result of the study, it was found that 67.7% of the assistant physicians wanted to emigrate to another country. It was seen that 56.5% were satisfied with the working environment, 60.8% were enjoying their job, and 30.2% wanted to leave their profession. 85.8% stated that brain drain in health could be prevented, while 99.1% considered the measures taken to prevent migration were insufficient in Turkey. In the study, assistant physicians mentioned ensuring appropriate working hours and conditions, and adopting effective and continuously functioning health policies as the first two practices that should be performed in order to prevent migration. The loss of branch and trained health professionals, poor and unqualified health service and difficulties in accessing health services were among the leading negative consequences of migration. Within the scope of the study, the occurrence of violent incidents in health institutions and adverse working conditions were among the factors affecting the health brain drain.

There were studies in the literature indicating different results. It was found that they migrated abroad to earn higher earnings, have better working conditions, and access educational opportunities and career opportunities (Clarke et al. 2017; Domagałaa and Dubas-Jakóbczk 2019). In addition, security issues and socio-economic and political factors were found to affect the migration of physicians (Astor et al., 2005; Lofters et al., 2013). Campbell (2007) found that despite experiencing numerous economic problems, physicians did not wish to leave their countries, concluding that this is due to their desire to serve their country (Campbell, 2007).

According to the other result of the research; socio-demographic characteristics of assistant physicians did not constitute a significant difference in brain drain attitudes. When the literature was examined; studies were reached stating that the brain drain rate was higher among male, single and young physicians (Pantenburg et al., 2018; Solberg et al., 2013). According to the results of

the study, various recommendations may be provided. Evidence-based policies can be employed to identify the causes, trends and effects of health workforce migration at the international and national levels. The attractive factors that cause the migration of health professionals can be increased, while reducing the repulsive factors. Therefore, it is recommended to improve the working conditions and working hours of health professionals (reducing the number of shifts, creating ergonomic working and rest rooms, etc.), reduce violent incidents, provide career opportunities, improve personal rights, regulate the place and duration of compulsory service, improve professional reputation, expand educational opportunities, and improve wages.

As a result, it is recommended to increase the pull factors that cause migration and to reduce the push factors in order to prevent the negative consequences of health brain drain. Since the study has been conducted in a single province and only in a university hospital, it constitutes certain limitations. Therefore, it is recommended for future researchers to conduct similar studies with a larger sample group.

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References

Aluttis, C., Bishaw, T., & Frank, M. W. (2014). The Workforce For Health in A Globalized Context- Global Shortages and International Migration. *Glob Health Action*, 7, 1-7.

Asadi, H., Ahmadi, B., Nejat, S., Sari, A. A., Garavand, A., Kia, A. A., & Hasaomi. M. (2018). Factors influencing the migration of Iranian healthcare professionals: A qualitative study. *Plos One*, 13(6), 1-11.

Astor, A., Akhtar, T., Matallana, M. A., . Muthuswamy, V., Olowu, F. A., Tallo, V., & Lie. R. K. (2005). Physician migration: Views from professionals in Colombia, Nigeria, India, Pakistan and the Philippines. *Soc. Sci. Med*. 61, 2492–2500.

Bal, H. (2001). Bilimsel Araştırma Yöntem ve Teknikleri. Isparta: Süleyman Demirel Üniversitesi Basımevi.

Bang, J. T., & Mitra, M. Brain drain and institutions of governance: Educational attainment of immigrants to the US 1988-1998. *Economic Systems*, 35(3), 335–354.

Bell, M., Charles-Edwards, E., Ueffing, P., Stillwell, J., Kupiszewski, M., & Kupiszewska, D. (2015). Internal migration and development: Comparing migration intensities around the world. *Population and Development Review*, 41(1), 33-58.

Bimal, M. K., Kaur, R., & Kaur, R. (2016). Factors Intend to Brain Drain among Staff Nurses. *International Journal of Advances in Nursing Management*, 4(4), 327-330.

Boros, L., Dudas, G., Ilesikne Makra, Z., Morar, C., & Pal. V. (2022). The Mıgratıon of Health Care Professıonals From Hungary – Global Flows And Local Responses. *Deturope*, 14(1), 164-188.

Buchan, J. (2008). How Can the Migration of Health Service Professionals be Managed so as to Reduce any Negative Effects on Supply?, Policy Brief, WHO Regional Office for Europe,http://www.euro.who.int/document/hsm.

Campbell, E. K. (2007). Brain Drain Potential In Botswana. *International Migration*, 45(5), 115-145.

Clarke, N., Crowe, S., Humphries, N., Conroy, R., O'Hare, S., Kavanagh, P., & Brugha, R. (2017). Factors influencing trainee doctor emigration in a high income country: a mixed methods study. *Human Resources for Health*, 15(66), 1-12.

Domagałaa, A., & Dubas-Jakóbczk, K. (2019). Migration intentions among physicians working in Polish hospitals – Insights from survey research. *Health Policy*, 123, 782–787.

Eser, E., Elif Ç., Gündoğan, N. E. Ş., Çöl. M., Öztürk, E. N. Y., &…. Thomas, D. T. (2022). Türkiye'deki Tıp Fakültesi Son Sınıf Öğrencilerinin Kariyerlerini Yurtdışında Sürdürme Eğilimleri ve Bunu Etkileyen Faktörler: 39 Tıp Fakültesinde Çok Merkezli Bir Araştırma. İçinde: 6 Uluslararası Ve 24 Ulusal Halk Sağlığı Kongresi-Kongre Kitabı [İnternet]. HASUDER. Erişim adresi: https://uhsk.org/2022/dosya/kongre_kitabi.pdf.

Filiz, M., Karagöz, M. B., & Karagöz, N. (2022). Tıp Fakültesi Öğrencilerinin Beyin Göçüne Yönelik Tutumlarının Değerlendirilmesi. *Karadeniz Sosyal Bilimler Dergisi*, *14*(27), 679-692.

Forcier, M. B, Simoens, S., & Giuffrida, A. (2004). Impact, regulation and health policy implications of physician migration in OECD countries. *Human Resources for Health*, 2(12), 1-11.

Güner, M. E., Şengelen, M., Ünal, B. B., Karabıçak, C., Çekici, D., Karadoğan, E., ... & Çakır, B. (2024). Tıp Fakültesi Dönem 1 ve Dönem 5 Öğrencilerinin Yurt Dışına Göç Eğilimlerinin Değerlendirilmesi. *Tıp Eğitimi Dünyası*, *23*(69), 59-69.

https://tdk.gov.tr/(Cited: 2022 August 07).

https://tdk.gov.tr/(Cited: 2022 August 08).

İstanbul Ekonomi Araştırma (2022). Türkiye Raporu. Türkiye'de Doktorların Yaşam Kalitesi. https://turkiyeraporu.com/wp-content/uploads/2022/05/Doktorlar-Raporu-Mayis-2022.pdf.

Karagöz, Y. (2014). SPSS 21.1. Uygulamalı Biyoistatistik. Ankara: Nobel Yayın Dağıtım.

Karaşin Y., & Karagöz, Y. (2023). Hekim Beyin Göçünü Etkileyen Faktörlerin Ölçek Geliştirme Yoluyla Belirlenmesi. *Hacettepe Sağlık İdaresi Dergisi*, 26(4), 1083-1096.

Kaya, S., Toraman, Ç. & Tekin, M. (2023). Tıp Fakültesi Öğrencilerinin Gelecekte Yurt Dışında Çalışmayla İlgili Görüşlerinin İncelenmesi: Çanakkale Örneği. *Tip Egitimi Dunyasi*. 22 (66), 47-60.

Kizito, S., Mukunya, D., Nakitende, J., Nambasa, S., Nampogo, A., & Kalyesubula R. (2015). Career İntentions Of Final Year Medical Students İn Uganda After Graduating: The Burden Of Brain Drain. *BMC Medical Education*. 15(1), 1- 7.

Lofters, A., Slater, M., & Thulien, N. (2013). The "Brain Drain": Factors influencing physician migration to Canada. *Health*, 5(1), 1- 13.

Mollahaliloğlu, S., Çulha, Ü. A., Kosdak, M., & Öncül, H. G. (2014). The migration preferences of newly graduated physcians in Turkey. *Medical Journal of Islamic World Academy of Sciences*. 109(1566), 1-7.

Öncü, E., Selvi, H., Vayısoğlu, S. K., & Ceylan, H. (2018). Hemşirelik Öğrencilerinde Beyin Göçüne Yönelik Tutum Ölçeği Geliştirilmesi: Güvenirlik Ve Geçerlik Çalışması. *Çukurova Medical Journal*, 43(1), 207-215.

Pantenburg, B., Kitze, K., Luppa, M., König, H. H., & Riedel-Heller, S. G. (2018). Physician Emigration From Germany: Insights From A Survey In Saxony, Germany. *BMC Health Services Research*. 18(341), 1-10.

Pol, M. V., Scott, A., & Irvine, A. (2019). The migration of UK trained GPs to Australia: Does risk attitude matter?. *Health Policy*, 123, 1093–1099.

Rutten, M. (2009). The Economic Impact of Medical Migration: An Overview of the Literature. *The World Economy*, 32(2), 291-325.

Sell S.K, & Williams, O. D. (2020). Health Under Capitalism: A Global Political Economy of Structural Pathogenesis. *Review of International Political Economy*, 27 (1), 1-25.

Solberg, I. B., Tómasson, K., Aasland, O., & Tyssen, R. (2013). The impact of economic factors on migration considerations among Icelandic specialist doctors: a cross-sectional study. *BMC Health Serv Res*, 13 (524), 1-7.

Tezcan, M. (2000). Dış göç ve eğitim. Ankara: Anı yayınevi.

Türk Tabipler Birliği (2023). Türk Tabipler Birliği Çalışma Raporu 2022-2023. https://www.ttb.org.tr/c_rapor/2022-2023/cr_2022-2023.pdf. (Erişim Tarihi: 28. 06. 2024).

Türk Tabipler Birliği (2024). Türk Tabipler Birliği Çalışma Raporu 2022-2024. https://www.ttb.org.tr/c_rapor/2022-2024/cr_2022-2024.pdf. (Erişim Tarihi: 28. 06. 2024).

Uğur, N. (2022). Great Risk For Education Cost: Brain Drain (Resident Physicians Case). *Sürekli Tıp Eğitimi Dergisi*, 31(2), 115-125.