ISSN: 2581-3366

Medical Professionals' Migration from Turkey: Motivations, Legal Challenges, and Employment Barriers

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doi: 10.51505/ijmshr.2024.8504 URL: http://dx.doi.org/10.51505/ijmshr.2024.8504

Received: Aug 10, 2024 Accepted: Aug 27, 2024 Online Published: Sep 17, 2024

Abstract

This cross-sectional study compares the professional, economic, and social status of health professionals who left Turkey within the last 10 years before and after their resettlement.
An online questionnaire was developed by the researchers. Using several social media groups of healthcare professionals, the questionnaire was shared with the target population. Additionally, snowball sampling was applied by asking the participants to distribute the study link to other acquaintant immigrants.

The mean age of the 513 participants was 39.9±8.7 years. Of the participants, 79.3% were medical doctors, 9.0% were nurses/midwives, 3.1% were dentists, and 8.6% had other occupations. Around one-fifth (n=113) held some academic titles, and another one-fifth (n=115) had finished a postgraduate specialization training. The mean duration after migration was 34.8±22.9 months. When the job ranks before/after emigration were compared, 63.4% had lower-rank jobs, while 36.6% maintained a similar rank or had a higher rank; 45.2% were unemployed or taking some courses. People holding a B2 language certificate had higher

probabilities (OR: 4.2) of obtaining the same or higher job rank in the immigrated country compared to Turkey.
More emphasis must be given to specialized language education to speed up the integration process of immigrant health workers from Turkey.

Keywords: Health Care Professionals; Healthcare Workers; Human Migration; Asylum Seekers; Political Asylum Seekers; Social Integration

1. Introduction

1.1 Background

Migration is defined as permanent relocation, except for transient movements, such as nomadism, migrant work, commuting, and tourism ("Human migration. Definition, Overview, & Facts," 2022; Kok, 1997). Voluntary migration indicates the search for more economically or socially favorable opportunities, while forced migration usually includes people who have been left in a difficult position due to war or political conflicts and have no choice but to leave the country, perhaps even as refugees (Ruiz & Vargas-Silva, 2013).

Over the past decade, the number of migrants and asylum seekers worldwide has increased significantly. By 2020, the number of refugees and/or displaced persons worldwide was estimated to exceed 280 million (around 3.6% of the world's population) (International Organization for Migration, 2022). The major waves of recent human movements include mostly war refugees. As an example, an estimated 3 to 4 million people from Afghanistan and 5 to 6 million people from Syria have left their countries (International Organization for Migration, 2022).

Since the late 1950s, Turkish citizens increasingly immigrated to European countries and especially to Germany (Abadan-Unat, 1976). In the first 20 years, the reason for relocation was to fill the labor market, but since the late 1970s, the overwhelming majority applied for political reasons (Abadan-Unat, 1976). More recently, Turkey experienced a failed coup attempt in 2016, followed by decree-laws dismissing state employees, followed by political prosecutions due to alleged terror organization memberships (Devi, 2016). The total number of expelled state employees after July 2016 is reported in 2020 as 125 678, of which 1 148 were academic staff at medical schools (Euronews, 2020).

Immigrants come from all walks of life. Therefore, health workers are among those shifting their homeland too. In 2020, the number of immigrants in Germany amounted to roughly 1.19 million, and there were 56 107 foreign doctors employed in Germany, compared to 52 522 the previous year (Koptyug, 2021). Immigrant medical doctors make up 20–28% of the health workforce in many high-income countries, including Australia, Britain, Canada, and the USA (Ashing et al., 2019).

The deterioration of the Turkish economy after 2013s and the increasingly repressive regime (Aktas, 2017) following the failed coup attempt in 2016 probably contributed to a new phase for

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ISSN: 2581-3366

the emigration of Turkish citizens. The number of Turkish immigrant doctors in Germany had a steady course (around 900) from 2002 to 2012, when it started to rise to 1600 in 2020 (Bundesärztekammer, 2020a). However, the migration motives of healthcare professionals have been studied only to a very limited extent. There are limited studies on the migration motives, adaptation processes, and current experiences of Turkish health professionals in Germany (Peppler, 2016, 2018). This study is expected to help to understand the situation more deeply and contribute to guiding the solutions to problems among immigrant healthcare professionals, including their integration processes.

Some findings of this research were presented at the 56th German Congress of General Practice (56. Kongress für Allgemeinmedizin und Familienmedizin) on September 15, 2022 in Greifswald, Germany.

1.2 Theoretical Framework

This study is anchored in migration theory, with a specific lens on the exodus of health professionals from Turkey. Overall, its theoretical framework integrates economic, social, and political theories to comprehensively analyze the migration of health professionals, emphasizing the significance of language education for successful integration. Our analysis is guided by two primary theoretical perspectives: the push-pull framework and the role of human capital in migration.

1. Push-Pull Framework: Central to our discussion is the push-pull framework, which explains migration as a result of push factors (e.g., political instability, economic duress) driving individuals away from their home country and pull factors (e.g., better job opportunities, improved quality of life) attracting them to host countries. This dual framework helps elucidate why Turkish health professionals, facing a post-2016 coup political climate and economic challenges, are motivated to relocate, primarily to Western countries.
2. Human Capital Theory: The human capital theory underscores the significance of language proficiency as a critical asset facilitating migrants' integration into the host country's labor market. Our emphasis on the role of B2 language certification illustrates how language skills, as part of a migrant's human capital, enhance employment prospects and job stability in the host country, aligning with our findings on job rank and employment status post-migration.

Together, these theories provide a multidimensional understanding of the migration of health professionals from Turkey, capturing the interplay between structural forces and individual agency. This framework not only contextualizes the migration phenomenon within broader socio-political and economic narratives but also highlights the pivotal role of language education in the successful integration of migrant health professionals.

1.3 Objectives

This descriptive cross-sectional study aims to compare the professional, economic, and social status of health professionals, who left Turkey within the last 10 years before and after their resettlement, and to investigate the motivations for emigration, experiences during the relocation, and their future ambitions.

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2. Method

2.1 Study Design

A descriptive and cross-sectional study was conducted. The study protocol was approved by the ethics committee of the Medical Faculty of the Munich Technical University (IRB number 2022-123-S-KK). Before recruitment, participants were informed about the study's purpose, length, and anonymity. Informed consent was obtained from all subjects. The participants were also informed that their data would be used for research purposes without disclosing the identities of the participants. The answers given to the questionnaire were accessible to the primary author only. A total of 523 people responded to the survey. Two participants were not health professionals, and eight were excluded due to conflicting/incomplete information (lacking information on the occupation: 4, double entries: 3, having checked the option "unemployed" but indicated a current job: 1). From the age and sex perspectives, the excluded participants were not different from the analyzed sample. A study flowchart is given in Figure 1.

2.2 Participants

The target population of the study was health professionals (including medical doctors, nurses, dentists, pharmacists, and allied healthcare staff) who migrated from Turkey within the last 10 years. The total number of the target population is not exactly known. However, approximately 700 medical doctors from Turkey have received a work permit in Germany within the last 10 years (Bundesärztekammer, 2020b). On the other hand, information from social media support groups indicates that around 500 medical doctors are currently in the application process for work permits only in Germany. The researchers estimate that roughly 9000 health workers have migrated from Turkey in the last 10 years.

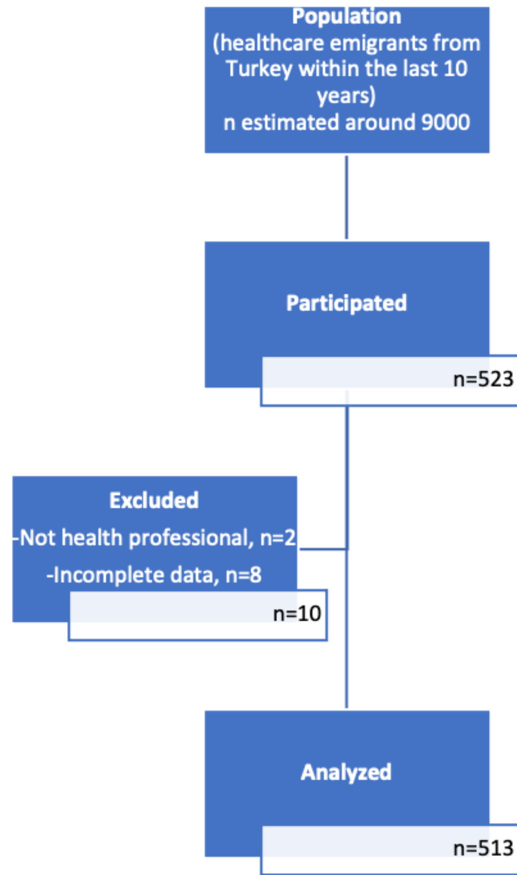

Figure 1: Study flow diagram

2.3 Inclusion and Exclusion Criteria

Former or current Turkish citizens holding a qualification in health sciences who migrated from Turkey for temporary or permanent settlement within the last 10 years were included in the study. Participants with incomplete (<60%) or conflicting data in the questionnaire were excluded.

2.4 Variables

The primary outcome measure of this study was the professional position of the participants in Turkey vs. in the resettled country. Secondary outcomes measured were reasons of migration, experiences during the integration, and future expectations. Using common knowledge and a literature search, an online questionnaire was constructed by the authors. The study questionnaire was composed of six sections: 1-Demographic information (10 items), 2-Reasons of migration (14 five-point Likert type items ranging 0 thru 4), 3-The immigration process (6 items), 4-Experiences after emigrating (12 items), 5-Comparisons of professional, social, and economic life between Turkey and the resettled country (17 items), and 6-Future expectations (3 items). Additionally, five open-ended questions were asked in different sections to collect qualitative

data, which were communicated as a separate report. The data collection form translated into English is available as online supplementary material. Some items were not included in the analysis due to the length of the report.

Piloting of the questionnaire was performed among five people, requiring around 20 minutes for each participant. Only minor wording changes were required after piloting. Most questions were composed of multiple choices or selection boxes. Furthermore, there were five free-text fields to collect qualitative information about the motivations to emigrate, experiences during the migration, experiences after emigration, and future plans.

2.5 Bias

Due to the snowball sampling strategy, heterogeneity of the participants could be achieved only to some extent. Most of the participants were persecuted in Turkey. To decrease detection bias, the data were checked by at least two researchers, and entries with conflicting or inappropriate information were deleted.

2.6 Study size

The sample size calculation was based on the main outcome “professional position.” Expecting that in an infinite population 60% of the emigrated health personnel were practicing their professional ranks in Turkey, 369 participants are required to estimate the proportion with a 5% margin of error and a 95% confidence interval (Rosner, 2015).

2.7 Data Collection and Setting

Data collection was conducted with the online data collection form between 18 April 2022 and 10 June 2022. The Turkish questionnaire was uploaded to Google Forms (https://forms.gle/5phoyydKrxdKpJoh7). Some authors of this study were members of several social media support groups of healthcare professionals outside Turkey. Social media groups established by healthcare professionals and influencers targeting Turkish-speaking people abroad were asked to share the survey link, reaching approximately 600,000 followers/group members. Furthermore, each participant was asked to send the link of the online form to other acquaintant Turkish healthcare workers, using the snowball method. This method recruits participants through referrals of existing participants, and is particularly useful when the target population is challenging to access, such as our target population (Atkinson & Flint, 2001). The initial wave of the snowball sample reached 285 participants after one week, followed by reminder messages via the index people. This amount is in accordance with the suggestion that the initial sample size in snowball sample should not be much smaller than the square root of the population size (Snijders, 1992).

2.8 Statistical Methods

Entering Data: Data were downloaded into Microsoft Excel first. After data cleansing, the data were imported to an IBM SPSS Statistics spreadsheet [IBM Corp, Armonk, NY] for analysis and stored in the servers of the Klinikum Rechts der Isar (Munich Technical University).

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Analysis: The distribution of data was described within and across the study groups by frequencies, percentages, means, standard deviations (SD), medians, and interquartile range (IQR), as appropriate. Corresponding hypotheses testing of univariable group differences were performed by Chi-squared tests, McNemar's test, One-way ANOVA, Fisher's exact tests, paired and independent samples t-tests (or Wilcoxon and Mann-Whitney-U tests, depending on meeting parametric assumptions). Normal distribution of the numerical variables was checked with the Kolmogorov-Smirnov test. Hypothesis testing was performed at exploratory two-sided 5% significance levels.

3. Results

3.1 Participants

Data for 513 health professionals could be analyzed. The mean (±SD) age was 39.9±8.7 years (min. 24, max. 71), and nearly half were females. The demographic findings of the participants are presented in Table 1. The majority of the participants were medical doctors, followed by nurses and dentists. Around 22% were holding some academic titles, and a similar proportion had finished postgraduate specialization training. Most were residing in Germany, and the majority had no spouse or children in Turkey. The mean number of household members was 3.29±1.45 (min. 1, max. 6).

Table 1. Demographic findings of the participants

		n	%
Sex	Male	278	54.2
	Female	235	45.8
Marital status	Single	52	10.1
	Widow/Divorced	12	2.3
	Married	433	84.4
	Has a partner	16	3.1
Highest education attained	Associate degree and below	16	3.1
	Bachelor	130	25.3
	Masters	141	27.5
	PhD	226	44.1
Last institution worked for in Turkey	Public	329	64.1
	Private/Foundation	181	35.9
Academic title(s) in Turkey (if any)	None	142	27.7
	Specialist	115	22.4
	Dr.	143	27.9
	Assistant Prof.	34	6.6
	Assoc. Prof.	47	9.2
	Prof.	32	6.2
Immigrated country (grouped)	Germany	377	73.5
	USA	38	7.4

	Other European	61	11.9
	Canada	15	2.9
	Other	22	4.3
Do any of the spouses and children live in Turkey most of the year?	No spouse or children in Turkey	408	79.5
	Spouse in Turkey	12	2.3
	Child/children in Turkey	31	6.0
	Spouse and child/children in Turkey	24	6.8

3.2 Descriptive data

The mean duration after migration was 34.8±22.9 months. While 263 participants (51.3%) left the country on regular routes with a valid visa, almost half (n=250, 48.7%) used illegal ways to leave Turkey. Of those 250 persons, 169 (67.6%) were exposed to life-threatening risks during their journey. The most common reasons for emigration were political reasons and discrimination, while social and economic reasons were the least important (Table 2).

Table 2: Distributions of the reasons of immigration (n=513)

	Mean score*	**SD**
Political reasons (e.g., persecution due to political views)	3.79	0.77
Discrimination (stigmatization, profiling, aggression, mobbing)	3.51	1.07
Fear	3.46	1.01
Judicial pursuit due to the state of emergency/decree-laws	2.87	1.73
Not being able to do the job in Turkey	2.66	1.64
Despairing about the cultural future	2.87	1.49
Moral reasons	2.31	1.58
Social reasons (cultural dissonance)	2.16	1.62
Loss of status of healthcare workers	2.15	1.71
Dislike of health policies	2.14	1.71
Violence against healthcare workers	1.76	1.67
To get a better education	1.14	1.47
Economic reasons	1.16	1.47
Social reasons (marriage, family reunification)	0.83	1.48

*Each item was graded separately on a scale from 0-4. SD: Standard deviation

All participants were practicing a medical job in Turkey; none were unemployed. Since graduate medical doctors can work as family physicians without specialization training in Turkey, 186 (36.3.9%) medical doctors were working as untrained practitioners (Table 3).

Current jobs were compared with those in Turkey and classified by two researchers as lower rank (e.g., a specialist medical doctor working as a resident, a professor working as a research assistant) and higher or same rank (e.g., a graduate medical doctor doing residency training, a specialist medical doctor doing subspecialty training, or doing the same job). When the job ranks

before/after migration were compared, 325 (63.4%) had lower rank jobs, while 188 (36.6%) maintained a similar rank or had a higher rank. Those receiving vocational training were categorized as students, independent of getting an income.

Table 3: Current job distributions compared to jobs in Turkey

	Current job n (%)												**Total**
Job in Turkey	**Nurse**	**GMD**	**SMD**	**Dentist**	**OHP**	**RMD**	**HM**	**Phar.**	**PT**	**RA**	**U/L/S**	**Other**	
Nurse	18 (39.1)	0			2 (4.3)						25 (54.3)	1 (2.1)	46 (100)
Graduate medical doctor		74 (39.7)	1 (0.5)		2 (1.0)	24 (12.9)	1 (0.5)			1 (0.5)	79 (42.4)	4 (2.1)	186 (100)
Specialist medical doctor		15 (7.6)	50 (25.3)		3 (1.5)	38 (19.2)			1 (0.5)		84 (42.6)	6 (3.04)	197 (100)
Dentist				7 (43.7)		1 (6.2)					8 (50.0)		16 (100)
Other health professionals	1 (5.5)				4 (22.2)						9 (50.0)	4 (22.2)	18 (100)
Resident medical doctor						11 (45.8)					12 (50.0)	1 (4.1)	24 (100)
Health manager							1 (25.0)				3 (75.0)		4 (100)
Midwife											3 (100)		3 (100)
Pharmacist								4 (44.4)			4 (44.4)	1 (11.1)	9 (100)
Physiotherapist									3 (75.0)		1 (25)		4 (100)
Veterinary doctor											3 (75)	1 (25)	4 (100)
Research assistant/academic duties										1 (50)	1 (50)		2 (100)
Total	19 (3.7)	89 (17.3)	51 (9.9)	7 (1.4)	11 (2.1)	74 (14.4)	2 (0.4)	4 (0.8)	4 (0.8)	2 (0.4)	232 (45.2)	18	513 (100)

Values given as n (%), GMD: graduate medical doctor, SMD: specialist medical doctor, OHP: other health professionals, RMD: resident medical doctor or resident dentist, HM: health manager, Phar.: pharmacist, PT: physiotherapist, RA: research assistant, U/L/S: unemployed/learning/studying

The median duration of arrival in the country of residence of the participants who left Turkey without a valid visa was 35 (IQR 15-90) days, and the median duration of stay in a refugee camp was 90 (IQR: 19.25-150) days, and the median duration of stay in shelters outside the camps was calculated as 90 (IQR: 0-240) days. Of these immigrants, 3.6% (n=9) had received some temporary economic support in the immigrated country. While 51.6% (n=129) were still obtaining such support, 44.8% (n=112) never received economic support from the government.

As seen in Table 4, the majority of the participants had sought asylum, and only 12.1% had no residency permit. Around two-thirds had a B2 language certificate. On average, 15.39±11.44 and 20±16.07 months were needed to pass the B2 language exam and the professional language exam, respectively.

Furthermore, the majority would like to keep their contact with Turkey but did not intend to permanently return, only a small minority (4.5%) regretted immigrating, and almost half would like to have their graves in the immigrated country. Of the participants who reported their working status, 44.1% are doing their own profession, and the average time required to practice the profession was 20±16.07 months (min. 0, max. 66) after immigration.

Future expectations and hope were evaluated by scoring on a 5-point Likert scale. Higher scores indicated more hope (0: I have no expectations for the future, 4: I am very hopeful for the future). The mean score of the participants' hopes for the future was calculated as 3.2±0.91. The vast majority were hopeful (78.6% n=403 selected 3 or 4 on the scale).

Table 4. Descriptive study findings

		n	**%**
Refugee status	No	175	34.1
	Yes	336	65.5
Residency permit	No residency permit yet	62	12.1
	Limited residency permit	342	66.7
	Unlimited residency permit	109	21.2
Currently working	No	230	44.8
	Yes	283	55.2
If currently working, how?	Practices the learned job	226	44.1
	Practices some other job	39	7.6
	No response	18	3.5
Professional equivalency	No	319	62.2
	Yes	194	37.8
Holding a B2 certificate	No	185	36.1
	Yes	328	63.9
Passed the professional language exam (FSP in Germany)	No	198	38.6
	Yes	203	39.6
	Not applicable	112	21.8
Current life compared to life in Turkey	Much better now. I'm glad I came	171	33.3
	Too bad now. I wish I hadn't come	6	1.2
	Better now, but I have some problems	218	42.5
	Worse now, but I can handle it	118	23.0
Are you planning to return to	I never think of going to Turkey again	78	15.2

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Turkey?	Yes, I would like to return and live in Turkey permanently at the first opportunity	23	4.5
	I would like to continue my contact with Turkey, but I do not intend to return permanently	412	80.3
If you die, where would you like your grave to be?	In the country which I am in	177	34.5
	In Turkey	115	22.5
	It doesn't matter	201	39.2
	Other	20	3.9

3.3 Outcome data

Of the 435 participants who owned a car in Turkey, 15.2% (n=78) had no car in the country they immigrated, while 35 of the 78 people (35.3%) who did not have a car in Turkey got a car after immigration (McNemar Chi-Square=29.23, p<0.001).

While 46.4% of the participants (n=238) were living in their owned places or with families in Turkey, this proportion decreased to 6.4% (n=33) after immigration. Of the 185 people in no rent in Turkey, 150 (81.1%) were living on rent after immigration, while of the 190 participants on rent in Turkey, 30 (15.8%) required no rent after immigration (McNemar Chi-Square=78.672, p<0.001).

The mean size of the accommodation places before and after immigration was 148.4±57.5 and 88.9±57.3 m^2, respectively (mean difference 59.4m^2, 95% CI: 53.0-65.7) (paired-samples t-test=18.381, p<0.001).

The social prestige perceptions of the participants in Turkey and in the immigrated country were evaluated by scoring on a 5-point Likert scale. Higher scores indicated a better perception of social prestige (0: Very low, 4: Very Excellent). The mean scores of the participants' perception of social prestige were significantly different when compared before (2.9±1.1) and after (2.3±1.1) immigration (Marginal homogeneity statistic=7.288, p<0.001).

As can be seen in Table 5, when the job rank statuses after immigration were compared according to their socio-demographic characteristics, marital status, education, academic title, vocational equivalence, and B2 language equivalence were significant variables (p<0.001).

Table 5. Comparison of the demographic variables with the job ranks after immigration

		Job rank comparison					
		Lower		**Same/higher**			
		n	**%**	**n**	**%**	χ^2	**p**
Sex	Male	159	48.9	119	63.3	9.91	0.001
	Female	166	51.1	69	36.7		
Marital status	Single	18	5.5	34	18.1	35.88	**<0.001**
	Widow/Divorced	11	3.4	1	0.5		
	Married	292	89.8	141	75.0		

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	Has a partner	4	1.2	12	6.4		
Education	Associate Degree and below	11	3.4	5	2.7	5.75	0.124
	Bachelor	81	24.9	49	26.1		
	Masters	79	24.3	62	33		
	PhD	154	47.4	72	38.3		
Occupation (grouped)	Medical doctor	251	77.2	156	83	3.73	0.292
	Nurse/midwife	30	9.2	16	8.5		
	Dentist	13	4	3	1.6		
	Other	31	9.5	13	6.9		
Academic title in Turkey	None	88	27.1	54	28.7	17.26	**0.008**
	Specialist	86	26.4	29	15.4		
	Dr.	60	18.5	54	28.7		
	Assistant Prof.	26	8	8	4.3		
	Assoc. Prof.	25	7.7	22	11.7		
	Prof.	22	6.8	10	5.3	15.59	0.004
Country (grouped)	Germany	236	72.6	141	75		
	USA	18	5.5	20	10.6		
	Other European	46	14.2	15	8.0		
	Canada	14	4.3	1	0.5		
	Other	11	3.4	11	5.9		
Route in leaving Turkey	Other	178	54.8	72	38.3		
	With a legal visa	147	45.2	116	61.7		
Residency permit	No residency permit yet	42	67.7	20	32.3	12.93	**0.002**
	Limited residency permit	230	67.3	112	32.7		
	Unlimited residency permit	53	48.6	56	51.4		
Received professional equivalency	No		73.9	34	38.6	99.932	**<0.001**
	Yes	75	26.1	54	61.4		
Passed professional language exam	No	172	52.9	26	13.8	102.1	**<0.001**
	Yes	78	24	125	66.5		
	Not applicable	75	23.1	37	19.7		
Plans regarding returning to Turkey	Never considers returning	46	14.2	32	17	2.257	0.324
	Intends to return to Turkey	12	3.7	11	5.9		
	Keep contact with Turkey but intends not to return	267	82.2	145	77.1		

*Fishers Exact test

We asked how many people were registered in the phone books of the participants before and after emigration and the number of people they would call in the middle of the night. While the median number of people registered in telephone directories in Turkey was 300 (IQR: 200-500), it was 120 (IQR: 55-250) after the emigration. The median number of people they could call at 3 am was 10 (IQR: 5-20) in Turkey and 4 (IQR: 2-10) after emigration. There was a significant decrease in the number of people in the phone books (Wilcoxon Z=13.017, $p<0.01$) and the number of people they would call at night (Wilcoxon Z=11.601, $p<0.01$) after emigration.

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A binary logistic regression analysis using the enter method was performed to check for independent factors affecting the comparison of current job ranks with those in Turkey. Independent factors in the model were age (years), sex (male/female), marital status (single/married), occupation (medical doctor/nurse-midwife/dentist/other), route in leaving Turkey (other/with a legal visa), immigrated country (Germany/USA-Canada/other European/other), asylum application (no/yes) and B2 language certificate status (no/yes). First categories of the factor variables were taken as the reference categories (e.g., male). Although with a small coefficient (OR: 1.05), younger age was significantly related to lower job ranks in the immigrated country. Furthermore, males (OR: 2.4), migrants to non-US, non-European countries (OR: 4.9), B2 language certificate holders (OR: 4.2), and non-asylum seekers (OR: 1.7) had a higher probability of achieving the same or higher job rank. Occupational groups and marital status had no effect on the outcome. The p-value for the route of leaving Turkey was just above the significance level. (Table 6).

Table 6: The job rank comparison regression results (n included=510)

						95% CI	
	B	SE	Wald	p	OR	Lower	Upper
Age (years) n=512	-0.04	0.01	13.86	<0.001	0.95	0.92	0.97
Sex (male n=276 vs. female n=234)	0.87	0.22	14.63	<0.001	2.39	1.53	3.75
Marital status (Single/widow/divorced n=64 vs. married/with partner n=446)	-0.25	0.32	0.64	0.422	0.77	0.41	1.45
Obtained B2 language certificate (no n=184 vs. yes n=326)	1.43	0.27	27.00	<0.001	4.18	2.43	7.17
Route in leaving Turkey (other n=249 vs. with a legal visa n=261)	0.46	0.23	3.76	0.052	1.59	0.99	2.54
Asylum application (no n=175 vs. yes n=335)	0.50	0.24	4.34	0.037	1.65	1.03	2.65
Country (reference category: Germany) n=375			12.71	0.005			
Country (USA or Canada) n=53	0.92	0.40	5.35	0.021	2.52	1.15	5.53
Country (Other European) n=60	-0.14	0.36	0.16	0.684	0.86	0.42	1.75
Country (Other) n=22	1.58	0.53	8.93	0.003	4.89	1.72	13.86
Job in Turkey (reference category: medical doctor) n=405			3.10	0.375			
Job in Turkey (nurse) n=45	0.60	0.40	2.26	0.132	1.83	0.83	4.03
Job in Turkey (dentist) n=16	-0.55	0.68	0.65	0.420	0.57	0.14	2.21
Job in Turkey (other) n=44	0.02	0.38	0.00	0.955	1.02	0.48	2.17
Constant	1.64	0.58	7.85	0.005	5.15		

Dependent variable: job rank comparison (0=lower rank, 1=same or higher rank), SE: standard error, OR: odds ratio, CI: confidence interval

4. Discussion

4.1 Key results

In brief, two-thirds of the participants were medical doctors, and most participants immigrated primarily to Germany due to political reasons, fear, and discrimination. However, despite the fact that three years have passed since the emigration, almost half of them were unemployed or were taking some courses. Furthermore, two-thirds were found to work in jobs with a lower degree compared to their academic titles in Turkey. Current job ranks compared to those in Turkey were higher for men (OR: 2.4), younger age (OR: 1.05), non-US, non-European settlers (OR: 4.9), B2 language certificate holders (OR: 4.2), and non-refugees (OR: 1.7).

4.2 Limitations

Due to the backgrounds of most of the researchers, the politically discriminated, asylum-seeking target population was more represented in the study, as is probably the case in the general population. Also, despite the anonymized questionnaire and the snowball sampling, some participants refused to join and expressed their concern that some of the questions in the study could be perceived politically by the country of their residence. Furthermore, despite error checking and debugging at the analysis stage, this study bears the general limitations of online surveys and snowball sampling. On the other hand, to the best of our knowledge, this is the first study investigating the emigration of different health professionals from Turkey. Another limitation is the inherent constraints of cross-sectional data collection, which provides a snapshot of a particular moment in time without capturing the dynamic nature of participants' experiences. To address this, we are planning to undertake a series of repeated cross-sectional studies aimed at tracking these changes over time, thereby enriching our understanding of the long-term effects of migration on healthcare professionals from Turkey.

4.3 Interpretation

Worldwide many countries are confronted with problems such as a lack of health workforce and its unbalanced distribution. These problems become even more critical with the international migration of healthcare professionals. In 2020, 15% of the elderly care and 9% of the hospital healthcare personnel in Germany were foreigners (Radtke, 2020). While the international migration of healthcare professionals deepens these problems for some countries, it can be a means of overcoming these deficiencies for some others. The migration of health workers is regulated by general provisions, including work permits and residence rights. In this context, medical doctors, nurses, and other health workers are categorized as “a skilled workforce” (Ong & Paice, 2006). The study is placed in the context of global migration trends, emphasizing the large numbers of refugees and displaced persons worldwide. The historical background of Turkish migration, from labor-driven to politically motivated movements, sheds light on factors influencing health workers' decisions to emigrate.

Doctors, nurses, and dentists being in the majority, participants in our research preferred Germany the most. It can be thought that the reason why the participants mostly preferred Germany is due to the policies to support Germany's "skilled labor force." In addition, Germany

is the most preferred country in Europe, not only for healthcare professionals but also for all immigrants. Data for 2020 show that the number of immigrants in Germany has increased to 1.19 million. The increase in the number of immigrants affected not only all areas of life but also the distribution of health professionals. Today, it is known that 56,107 immigrant physicians and more than 200,000 immigrant nurses are working in Germany (Bundesagentur für Arbeit, 2022). With the contributions of economic and political developments, increasingly more physicians from Turkey prefer to work abroad. In 2012, 59 physicians requested registration data from the Turkish Medical Association (TTB) to work outside Turkey, which reached 906 in 2019 and surpassed 2400 in 2022 (Turkish Medical Union, n.d.). Furthermore, in recent years, there has been a significant increase in asylum applications from Turkey to Germany. The total 1,767 asylum applications in 2015 increased to 5,742, 8,483, 10,655, and 11,423, respectively, in the following years, making Turkey the fourth largest country exporting asylum seekers (Bundesamt Für Migration Und Flüchtlinge, 2020).

Dozens of Statutory Decrees (KHK) were issued by the recent Turkish President with the powers granted by the state of emergency declared after the 15 July coup attempt in Turkey. During the two-year state of emergency, tens of thousands of people from the military to the health sector were dismissed, detained, or arrested, and tens of thousands of passports were canceled (Ulusoy & Battjes, 2017). Many of these people lost their family and community support and were marginalized (KHK'lı Platformları Birliği, 2020).

Although economic reasons make up an important motivation for immigration, one challenge expecting 'illegal' immigrants is the wage gap between observationally equivalent legal and undocumented immigrants (Borjas & Cassidy, 2019). In our study, the majority of people who immigrated from Turkey emigrated mostly due to political reasons using illegal ways, many of them facing life-threatening risks during their travels. Hence, we can infer that they did not immigrate for financial reasons. Having left Turkey despite the potentially dangerous journey and expecting uncertainties indicates that these health professionals could possibly no longer function safely in Turkey. To mention just one of the many examples, Mehmet, a Kurdish doctor who had to migrate to the USA after the coup attempt in 2016, compares these unlawful acts to a witch hunt (Bell & Walkover, 2021).

Reasons for the migration of healthcare personnel from different professions can vary in a wide range. Triggering and pushing factors (push and pull factors) have been determined in general, and economic and occupational reasons are possible (Nair & Webster, 2013). Push factors encompass factors like inadequate salaries, substandard occupational safety (especially concerning HIV transmission), lack of resources and medication supply, insufficient opportunities for postgraduate education and ongoing professional growth. Conversely, pull factors for migration could involve shortages of healthcare workers in destination countries, improved educational prospects, continuous access to professional development, higher incomes, and enhanced living standards (Jenkins et al., 2010).

The increasing emigration of healthcare workers from Turkey has attracted attention, and numerous domestic studies have been conducted on the subject. Studies indicate that the overburdened health system, working conditions, doctor-patient relationship, and political discourse have been cited as the primary reasons for emigration from Turkey (Aydan, 2023; Yildirim, 2009). However, little attention has been given to people who are forced to leave the country for political reasons because this topic is taboo in Turkey. It is known that freedoms are restricted in Turkey, fair trials are not possible, and the government exerts intense pressure on scientists ("Freedom of Expression, Association, and Assembly," 2024; "Turkey: Boğaziçi University Is Testimony to the Power of Collective Action," 2024). Therefore, we can say that studies conducted so far are lacking in this aspect.

In our study, unlike other studies in the literature, political reasons (e.g., persecution due to political views), discrimination (stigmatization, profiling, aggression, mobbing), fear, judicial pursuit due to the state of emergency/decree-laws are identified as primary push factors. Contagious disease risk, suboptimal working conditions, and inadequate education and professional development are not considered significant migration reasons in this study. Our study fills the gap in understanding the emigration of healthcare workers due to political reasons, which has been overlooked due to being considered taboo in Turkey, by examining it in depth.
Similar to our study, in research conducted in underdeveloped and developing countries examining the reasons for the migration of healthcare workers, factors such as safety and fear are frequently included (Bidwell et al., 2014; Blacklock, Ward, Heneghan, & Thompson, 2014; Walton-Roberts et al., 2017). Heeren et al. (Heeren et al., 2020) included the reasons for migration, experiences during migration, and their effects on health in their studies with the general population. In the same study, it has been determined that immigrants who have applied for asylum and protection mostly come from countries with political problems, such as civil war and political pressure, while other immigrants often come from countries with no economic stability.
Our participants felt more prestigious during their active/functional days in Turkey compared to their current locations. Still, when asked to match their lives with Turkey, most of them chose the option "It's better, but I still have some problems." In addition, the majority of the sample stated that they were 'looking at the future with hope' despite all the problems. These data confirm that, as explained above, the main migration motivation of the participants is probably not economical. Despite their difficult experiences before and during the migration, they are motivated to rebuild their lives.

Most countries provide economic and accommodation support to asylum seekers. In our study, the average arrival of the participants to their country of residence took about three months. They lived in refugee camps for more than three months and in a second accommodation center for more than eight months. Studies on the living conditions of immigrants during their 'flight patterns' and asylum procedures are quite limited (Bell & Walkover, 2021; Leiler, Bjärtå, Ekdahl, & Wasteson, 2019). However, the place of accommodation while waiting for the asylum decision affects the mental health of the person and is associated with diseases such as anxiety,

depression and post-traumatic stress disorder (Leiler et al., 2019; Szaflarski, Cubbins, & Meganathan, 2017).

Being a refugee is burdened with negativity. It is known that the status of immigrants in the countries they settle in affects both their mental health (Heeren et al., 2020) and their inclusion into the community (Kosyakova & Brenzel, 2020). Heeren et al. (Heeren et al., 2020) found that the incidence of symptoms possibly associated with post-traumatic stress was lowest in immigrants who had legal entry to the country, while the rate of symptoms of anxiety disorders was highest in refugee immigrants who did not yet have protection status (Kosyakova & Brenzel, 2020). On the other hand, they found that people who are uncertain about their legal status in Germany are the most disadvantaged group in the business world. For this reason, the experiences of health professionals who migrated regarding the asylum process should be considered as a factor affecting their adaptation to the country they settled.

It is not possible to quantify all aspects of the experiences of health professionals after migration and the new lives they have built. Because they are both refugees and asylum seekers who carry the social, psychological, and physiological burden of their experiences in their countries, and are, at the same, time professionals who provide therapeutic services to refugees and asylum seekers. Comprehensive analysis of these cross-effects also requires the use of qualitative research techniques. Although our study included qualitative questions to tackle this issue, we could not report our results here. A separate article will follow on this.

There are not enough scientific studies yet on the social and psychological traumas caused by the recent Turkey purge. Citizens who were expelled by decree laws without legal justifications were excluded from society, they were not allowed to practice their learned jobs, and they were exposed to over 100 different kinds of rights violations. In this process, many deaths occurred, and 130 people admitted suicide. Acts that are not considered crimes in the Turkish legal system were included in the scope of crimes, and tens of thousands of people were imprisoned, and hundreds of people lost their lives due to unlawful and inhumane practices in prisons. Qualified groups of people who are not accepted as citizens in their country had to migrate to different geographies with the hope of finding a job according to their professional characteristics, gaining social acceptance with their individual performances, living in a more democratic society, and raising their children in such a society (Gergerlioğlu, 2019).

Turkey itself is a country having millions of immigrants, mainly from the Middle East. Hence, the problems brought along, including physical (Beşer & Tekkaş Kerman, 2017) and mental (Solgun & Durat, 2017) issues, as well as child (Aydın, Şahin, & Akay, 2017) and women's health problems (Aksu & Sevil, 2010), are repeatedly mentioned by Turkish scientists. Considering its profound effects on human rights, it becomes clear that the health problems of asylum-seekers are an important issue that needs to be evaluated in the context of human rights.
In our study, the average duration of the participants' stay in the country after the migration was about 3 years. The majority of immigrants were staying with a limited-term residence permit,

and about 10% had no residence permit yet. The participants received a B2 language certificate with an average of 1.5, passed the professional language exam within less than two years, and about half of them were working. Language proficiency is also highlighted as crucial for job opportunities, with those holding a B2 language certificate having better prospects.

These results can be seen as acceptable considering general immigration procedures. However, it is an obvious loss for a country's economy and health system that educated people who can fill the needed health professional gap cannot start functioning despite the years passed. Similar problems observed among the recently immigrated Syrian doctors to Germany raised the need to establish an official information source that provides immigrant doctors with accurate and detailed information about the licensure process (Loss, Aldoughle, Sauter, & von Sommoggy, 2020). In addition, the fact that the majority of health professionals who have managed to enter business life are working at lower ranks compared to their past shows that health professionals cannot use their existing expertise and competencies, which is another significant loss for the health system.

Through migration, the person's social location changes from that of a native into a migrant. It is not easy for immigrant health professionals to enter the new health system. The difficulty increases, especially if the country of education is outside USA or EU. It has been observed that our participants have followed a long process in order to gain language proficiencies and get their professional equivalence so that they could start functioning. In this difficult and long process, people may experience problems such as maintaining professional competencies and adapting to the new health system and culture (Bradby, 2014; Hohmann, Glaesmer, & Nesterko, 2018).

In addition, refugee health professionals have problems accessing documents proving their proficiency and the necessary resources and support needed to enter business life (Bell & Walkover, 2021; Khan-Gökkaya & Mösko, 2020). In recent years, studies on programs developed to overcome these obstacles, and their effectiveness have increased. In different countries, support is given to ensure the validity of language education and professional competencies (Leblanc, Bourgeault, & Neiterman, 2013; Ong & Paice, 2006; Shah, Moodambail, Alam, Ragiwala, & Mulamehic, 2021). Similarly, we determined that language competencies and professional equivalency play a crucial role in professional integration and affect job rank. Furthermore, our study indicates the relationship between residency status on the current job ranks.

As summarized above, the response to an asylum application determines the length of stay, status, and certainty of remaining in the country. This status may affect the person's access to integration programs such as language courses and job coaching, which are needed to adapt to the community. Those who do not have access to such programs, who have a very short stay, or who have not yet received a permanent status have higher rates of low-level employment. Also, in our study, those who did not apply for asylum had a higher rate of starting a job with equal or

higher rank compared to those who did. This situation can be explained by the psychological effects of the difficulties experienced by asylum seekers before, during, and after migration, as well as the fact that non-asylum immigrants have the opportunity to make more comprehensive preparations for the country they will migrate to. Chok et al. (Ng Chok, Mannix, Dickson, & Wilkes, 2018) defined the factors that facilitate and complicate work placement in their scoping review. They examined the experiences of refugee nurses while returning to their profession in the immigrated countries. Loss of control of life, shock of the new environment, and pessimistic expectations for professional life were determined as the main complicating factors. Accepting the new situation with optimistic determination, ensuring the reconstruction of the identity of the person as a "valuable individual who contributes to the society" by providing social networks, communication, and appropriate employment, and creating hope for the future by supporting the other roles of the individual in the family are also exemplified as facilitating factors.

4.4 Policy implications

Effective policy responses should prioritize the streamlined recognition of professional qualifications acquired abroad, invest in specialized language education for immigrant health workers, and establish support programs for mental health and social integration. Additionally, addressing the unique challenges faced by asylum-seeking health professionals, ensuring fair and equal opportunities, and encouraging international collaboration are essential. Policies should focus on human rights and non-discrimination, implement integration programs for refugees, and support ongoing professional development. Long-term sociological and psychological analyses should inform policy adjustments, fostering a supportive environment for immigrant health professionals from Turkey and facilitating their successful integration into the host country's healthcare system and society by paying special attention to attaining language skills.

4.5 Conclusion

This article examines the migration of healthcare workers from Turkey and its effects on their professional, economic and social status. Particular emphasis is placed on the issue of politically motivated forced migration, which has increased in recent years in Turkey. The majority of the recent immigrant healthcare workers from Turkey are well-educated, highly qualified people who had to go abroad for political reasons.. However, despite the mean three-year time lapse since migration, nearly half are jobless and two-thirds work in lower rank jobs despite their earned competencies. Coping with difficulties the immigrants experienced before and during migration, rebuilding their sense of functionality and worthiness, and providing social-psychological support, may facilitate integration and, thus, acceleration of the transition to professional life. In addition, in this difficult and long process, people need professional support in order to cope with problems such as learning a new language, maintaining professional competence, and adapting to a new health system and a new culture. More emphasis must be given to specialized language education to speed up the integration process of immigrant health workers from Turkey. There is a need for a sociological and psychological in-depth analysis of the experienced migration wave and a detailed investigation of post-traumatic disorders experienced after the process.

ISSN: 2581-3366

Disclosures

Availability of data and materials: The qualitative dataset is available under Mendeley Data: Aktürk, Z. (2023), "MigraTur Qualitative Dataset," Mendeley Data, V1, doi: 10.17632/x4r3m4g3t6.1. An e-book was published, including all qualitative data and some demographic information of the participants (https://a.co/d/hC3fO3r).

Competing interests: The authors have no conflict of interest in this study.
Funding: This study was not funded by any organization.
Authors' contributions: ZA developed the study idea. ZA, BBS, RÇ, KÇ, MAÇ, AMÇ, MD, UE, FG, NK, EK, MKA, ŞK, LZ, and AS developed the methods. ZA, BBS, RÇ, KÇ, MAÇ, AMÇ, MD, UE, FG, NK, EK, MKA, RK, ŞK, and LZ contributed to data collection and data analysis. ZA, BBS, RÇ, KÇ, MAÇ, AMÇ, MD, UE, FG, NK, EK, MKA, RK, ŞK, LZ, and AS drafted the paper, ZA, BBS, RÇ, KÇ, MAÇ, AMÇ, MD, UE, FG, NK, EK, MKA, RK, ŞK, LZ and AS read and approved the final manuscript.

Acknowledgments

We thank F. Zehra Fidan and Jan Gehrmann for reviewing this manuscript and making suggestions from a sociological perspective.

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ISSN: 2581-3366

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