Sağlık ve Sosyal Refah Araştırmaları Dergisi

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ARAŞTIRMA MAKALESİ / RESEARCH ARTICLE

INVESTIGATION OF TURKISH NURSES' ATTITUDES TOWARDS BRAIN DRAIN

TÜRK HEMŞİRELERİN BEYİN GÖÇÜNE YÖNELİK TUTUMLARININ İNCELENMESİ

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ABSTRACT

Background and Aims: In recent years, there has been a significant brain drain in the health sector due to healthcare workers migrating abroad to work. This study analyzes the push and pull factors that prompt nurses to leave the country.
Methods: The sample of the cross-sectional and descriptive study consists of 270 nurses working in Istanbul. The researchers used a questionnaire to collect data on the nurses' demographic information, work history, and attitudes toward brain drain. The data collected was analyzed using statistical tests such as Chi-Square, Independent two sample T-test, Kruskal Wallis, and Pearson Correlation test. A statistical significance level of 0.05 was used to determine the significance of the results.
Results: The mean age of the nurses was 33.6±8.95 years, and the mean working period was 10.8±9.27 years. Most were female, married, and had a bachelor's degree. Fifteen percent of the participants had attempted to go abroad, 53% were only at the thought stage, and 32% stated that they did not want to go abroad. The scores for both push and pull factors were significantly higher among those who wanted to go abroad than those who did not ($p<0.01$). Additionally, nurses working in specialized units had more positive thoughts about migration abroad ($p<0.05$). A negative correlation was found between age and the pull factor score ($p<0.05$), and working time in the profession was negatively correlated with push and pull factor scores ($p<0.01$). However, there was no difference in the mean scores of the push and pull factors among those who stated that they wanted to go abroad regarding gender, marital status, length of service, and units of employment.
Conclusions and Suggestions: Young nurses, nurses with fewer working years, and nurses working in specialized units have more positive attitudes toward brain drain. Nurses are an integral part of the healthcare workforce, and Türkiye may face severe consequences due to the potential effects of brain drain in the near future. Therefore, policymakers in the healthcare sector must take necessary measures to prevent this from happening.

Keywords: Nurse, Brain Drain, Health Management, Türkiye.

JEL Classification Codes: I18, I10.

ÖZ

Giriş ve Amaç: Son yıllarda sağlık çalışanlarının çalışmak için yurt dışına göç etmesi nedeniyle sağlık sektöründe önemli bir beyin göçü yaşanmaktadır. Bu çalışmada hemşireleri ülkeyi terk etmeye iten ve çeken faktörler analiz edilmektedir.
Yöntem: Kesitsel ve tanımlayıcı nitelikteki çalışmanın örneklemini İstanbul İlinde görev yapan 270 hemşire oluşturmaktadır. Araştırmacılar, hemşirelerin demografik bilgileri, çalışma geçmişi ve beyin göçüne karşı tutumları hakkında veri toplamak için bir anket kullandı. Toplanan veriler Ki-Kare, Bağımsız iki örnek T testi, Kruskal Wallis ve Pearson Korelasyon testi gibi istatistiksel testler kullanılarak analiz edildi. Sonuçların anlamlılığını belirlemek için 0,05 istatistiksel anlamlılık düzeyi kullanıldı.
Bulgular: Hemşirelerin yaş ortalaması 33,6±8,95 yıl, ortalama çalışma süresi 10,8±9,27 yıl idi. Çoğu kadın, evli ve lisans mezunuydu. Katılımcıların yüzde 15'i yurt dışına çıkma girişiminde bulunduğunu, yüzde 53'ü henüz fikir aşamasında olduğunu, yüzde 32'si ise yurt dışına çıkmak istemediğini belirtti. Yurt dışına çıkmak isteyenlerin, istemeyenlere göre hem itici hem de çekici faktörlere ilişkin puanları anlamlı derecede yüksekti ($p<0,01$). Ayrıca özellikli birimlerde çalışan hemşirelerin yurt dışına göç konusunda daha olumlu düşünceleri olduğu belirlendi ($p<0,05$). Yaş ile çekme faktörü puanı arasında negatif korelasyon ($p<0,05$), meslekte çalışma süresi ile itme ve çekme faktörü puanı arasında negatif korelasyon bulundu ($p<0,01$). Ancak yurtdışına gitmek istediğini belirtenlerin cinsiyet, medeni durum, kıdem süresi ve çalıştıkları birim açısından itici ve çekici faktörler puan ortalamalarında farklılık bulunmadı.
Sonuç ve Öneriler: Genç hemşirelerin, çalışma yılı daha az olan hemşirelerin ve özellikli birimlerde çalışan hemşirelerin beyin göçüne yönelik tutumları daha olumludur. Hemşireler sağlık iş gücünün ayrılmaz bir parçasıdır ve Türkiye yakın gelecekte beyin göçünün potansiyel etkileri nedeniyle ciddi sonuçlarla karşı karşıya kalabilir. Bu nedenle sağlık sektöründeki politika yapıcıların bu durumun önlenmesi için gerekli tedbirleri alması gerekmektedir.

Anahtar Kelimeler: Hemşire, Beyin Göçü, Sağlık Yönetimi, Türkiye.

JEL Sınıflandırma Kodları: I18, I10.

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GENİŞLETİLMİŞ ÖZET

Amaç ve Kapsam:

Yüksek eğitim düzeyine sahip, vasıflı işgücünün çalışma ve yaşam kalitesinin daha yüksek olduğu ülkelere göç etmesi "beyin göçü" olarak tanımlanmaktadır (Sarcan, 2022). Bu göç çeşidi hem gelişmiş hem de gelişmekte olan ülkeleri kapsamakla birlikte, Birleşmiş Milletlere göre yalnızca sanayileşmiş dünyaya fayda sağlayan tek yönlü bir harekettir (Dzinamarira & Musuka, 2021). Beyin göçü ülkelerin demografik yapısını değiştirmenin yanı sıra, özellikle bazı iş kollarında yoğun göç yaşanması çalışma hayatını da etkilemektedir. Beyin göçünün hızlı artış gösterdiği sektörlerden biri de sağlık hizmetleridir. Özellikle doktorların ve hemşirelerin beyin göçü, son yıllarda pek çok ülkenin mücadele ettiği bir politika kaygısı haline gelmiştir (Quamruzzaman, 2020).

Hemşire göçünün belirleyicilerinin ülkelerde değişkenlik gösterebileceği göz önünde bulundurulduğunda, her ülkenin kendi sağlık politikasını şekillendirmek için ülkeye özgü çalışmaların yapılması önemlidir. Bu çalışmanın amacı, hemşirelerin çalışmak amacıyla yurtdışına göç sebeplerini itici ve çekici faktörler açısından incelemektir. Çalışmadan elde edilen sonuçların hemşire göçünü önlemek/azaltmak için sağlık politika yapıcılarına yol göstereceği düşünülmektedir.

Yöntem:

Çalışma kesitsel ve tanımlayıcı tiptedir. Çalışmanın evreni, İstanbul'da hastanelerde çalışan hemşirelerdir. Kolayda örneklem yöntemi ile ulaşılan 270 hemşire çalışmanın örneklemini oluşturmaktadır. Veri toplamada katılımcılara çevirim içi bir anket uygulanmıştır. Anket Google Form alt yapısı kullanılarak hazırlanmış ve bağlantı linki katılımcılara cep telefonu üzerinden mesajlaşma uygulamaları ile gönderilmiştir. Anket iki bölümden meydana gelmektedir. Birinci bölümde hemşirelerin demografik özellikleri (yaş, cinsiyet, eğitim düzeyi, medeni durumu) ve çalışma hayatı ile ilgili sorular (çalışılan birim, hemşirelikte toplam çalışma süresi, yurtdışında çalışmak için herhangi bir girişimde bulunma durumu) yer almaktadır.

Hemşirelerin demografik ve çalışma hayatına dair verileri frekans dağılımları ortalama ve standart sapma olarak gösterilmiştir. Gruplar arası karşılaştırma için Bağımsız İki Örneklem T testi ve One-way ANOVA testi uygulanmıştır. Değişkenler arası ilişkileri incelemek için Ki Kare Analizi ve Pearson Korelasyon Analizi uygulanmıştır. İstatistiksel anlamlılık 0,05 düzeyinde kabul edilmiştir.

Bulgular:

Çalışmada 270 hemşireden veri toplanmış olup, hemşirelerin yaş ortalaması 33,6±8,95 yıl bulunmuştur. Hemşirelerin ortalama 11 yıl çalışma süresi olduğu, çoğunluğunun kadın, evli, lisans düzeyinde eğitime sahip olduğu görülmüştür. Göç etme niyeti olan ve olmayan hemşirelerin puan ortalamaları karşılaştırıldığında, göç etme niyetinde olan hemşirelerin hem itici hem de çekici faktörlerde anlamlı derecede yüksek ortalama puanlara sahip olduğu görülmüştür. Tüm hemşireler dikkate alınarak hemşirelerin cinsiyet, medeni durum, eğitim düzeyi ve çalıştıkları birimlere göre göç niyetleri Ki-kare testi ile analiz edilmiştir. Sonuçta, yalnızca çalışılan birime göre gruplar arası anlamlı bir farklılık bulunmuştur. Tüm hemşirelerden toplanan veriler, yaş, çalışma süresi, ortalama itme faktörü puanı ve ortalama çekme faktörü puanı arasındaki ilişkiyi incelemek için analiz edilmiştir. Çalışmada yaş ile çekme faktörü puanı arasında anlamlı ancak düşük düzeyde negatif bir ilişki olduğu ($r = -0,154$; $p < 0,05$) ve benzer şekilde çalışma süresi ile her iki faktör puanları arasında da negatif ve düşük düzeyde bir ilişki gözlenmiştir (sırasıyla $r = -0,134$; $p < 0,05$ ve $r = -0,158$; $p < 0,01$). Son olarak göç etmek isteyen hemşirelerin cinsiyet, medeni durum, eğitim düzeyi ve çalışma süresine göre itici ve çekici faktör puanları karşılaştırılmıştır. Ancak bu değişkenlerin hiçbirinde gruplar arasında istatistiksel olarak anlamlı fark bulunmamıştır ($p>0,05$).

Sonuç ve Tartışma:

Tüm dünyada olduğu gibi Türkiye'de de son yıllarda sağlık hizmetlerinde beyin göçü önemli bir gündem konusudur. Doktorlarla başlayan göç furyası, hemşireler ile devam etmektedir. Hem mevcut çalışma hem de yakın zamanda yapılan kısıtlı sayıdaki çalışmalar Türkiye'de hemşirelerin çok büyük oranda başka bir ülkede çalışmayı düşündüğünü ortaya koymaktadır. Çalışmada yurtdışında çalışmayı düşündüğünü ifade eden hemşirelerin beyin göçü tutumları diğerlerine kıyasla anlamlı düzeyde yüksektir. Özellikli birimlerde çalışan hemşireler göçe daha olumlu bakmaktadırlar. Bununla birlikte yurtdışına çıkmayı düşünenlerin itici faktörlerden daha fazla etkilendiklerini söylemek mümkündür. Hemşireler bir ülkenin sağlık sisteminin vazgeçilmez unsurlarından biridir. Bu nedenle hemşire arzı sağlık bakanlıklarının önemli konularından biridir. Türkiye hemşire arzında OECD ülkeleri arasında en alt sıralarda bulunmaktadır. Bu durum ülkenin geliştirmesi gereken bir sorun iken beyin göçü nedeniyle mevcut hemşirelerin kaybının, sağlık sunumunda ciddi sorunlara yol açabileceği muhtemeldir.

1. INTRODUCTION

The term "brain drain" refers to the migration of highly educated and skilled workers to countries that offer a higher quality of work and life. According to the United Nations, this phenomenon is observed in both developed and developing countries but is typically a one-way movement that benefits only the industrialized world (Dzinamarira & Musuka, 2021).

In addition to changing the demographic structure of countries, brain drain also has an impact on working life, particularly in certain business sectors. One such sector is healthcare, where the migration of doctors and nurses has become a significant policy concern in many countries (Quamruzzaman, 2020).

Nurses play a critical role in the healthcare industry. With an aging population, longer life expectancy, and increased chronic diseases, multimorbidity, and disability, the demand for nurses has been rapidly growing worldwide. However, despite the increasing demand, health systems across the globe are struggling with a shortage of qualified nurses, making nurse shortages a global problem in recent years (Xu et al., 2021; Marufu et al., 2021; Baker, 2022; Parzonka et al., 2023; Baumann & Crea-Arsenio, 2023). Additionally, the demand for health workers is projected to rise significantly in the coming years. According to the World Health Organization (WHO) and the World Bank, by 2030, approximately 40 million new health and social care jobs will be created worldwide, and an additional 18 million health workers will be required (WHO, 2016).

A nurse shortage happens when the demand for nurses in a country exceeds the number of nurses available for employment (Drennan & Ross, 2019). This shortage contributes to the international recruitment of health workers from low-resource settings, leading to global labor mobility (WHO, 2016).

Nurse migration places an additional burden on the health systems of the sending countries. It is known that in countries where nurse migration has become unavoidable, the health system has come to a standstill (BBC News Turkish). Migration reduces the quality of care provided to patients (Peters et al, 2020) and negatively affects the achievement of health-related Sustainable Development Goals in developing countries (Dzinamarira & Musuka, 2021). Furthermore, it imposes a financial burden on the country. According to a Kirigia et al (2006), every doctor who migrates from Kenya to developed countries results in the country losing approximately USD 517,931, and for every nurse who migrates, the country loses approximately USD 338,868.

According to classical economic theory, income is considered the most crucial factor in motivating individuals to switch jobs or labor markets. However, another perspective suggests that job-related factors besides pay influence such decisions. Existing studies on health worker migration identify two categories of factors that determine migration decisions: push factors in the source country and pull factors in the recipient country. Push factors refer to circumstances in the country of origin that prompt professionals to leave, while the policies and actions of the recipient country that unintentionally or intentionally attract health professionals are called pull factors (Kirigia et al, 2006; Ogaboh et al, 2020; Adovor et al, 2021; Drennan & Ross, 2019).

The main push factors include the weakness of the health system in the country, organizational problems such as unsafe workplaces with violence, excessive workload, low job satisfaction, low wages, lack of professional development opportunities, lack/absence of established career opportunities, lack of measures for employee health, management shortcomings, nepotism in recruitment and promotion, and poor living conditions, political unrest/civil wars, personal security issues, widespread poverty, and poor governance in the country (Kirigia et al., 2006; Ogaboh et al., 2020).

On the other hand, pull factors include increased demand for health professionals in recipient countries (e.g., the need to care for an aging population), availability of knowledge in the destination country, better wages, training opportunities, career development, improved working conditions, easy access to communication and technology, availability of employment opportunities, safe and favorable living conditions and opportunities for intellectual development (Kirigia et al., 2006; Ogaboh et al., 2020).

In addition, brain drain in healthcare is also supported by the policies pursued by developed countries to increase human resources (Drennan & Ross, 2019). Adovor et al. (2021) report that offering permanent residence in destination countries is one of the most effective policies in attracting healthcare workers. Moreover, the ease of finding a job in developed countries, facilitating visa applications and completion of procedures, aggressive targeted recruitment by countries to fill vacancies, tax reductions, removal of bilateral visa restrictions, or recognition of foreign diplomas are other facilitators (Kirigia et al., 2006; Adovor et al., 2021). These migration policies to attract highly skilled workers also have a significant impact on medical brain drain (Adovor et al, 2021).

The fact that nurses have been included in the occupational shortage list for inward migration by the government of a particular country implies a shortage of nurses in that country (Drennan & Ross, 2019). Nowadays, many developed countries are welcoming health professionals, including nurses, with open arms. The governments of Germany, the UK, and Canada have recently launched new programs to aid the visa procedures for nursing professionals by including nursing in the list of professions in need (make-it-in-germany.com; GOV.UK, July 14, 2020; canada.ca, June 28, 2023). Türkiye is ranked fifth from the bottom among OECD countries regarding the number of nurses per thousand people (2.8) (OECD, 2023). Although policies have been implemented to increase the number of health personnel in the country, there are still not enough employees (Çetin et al., 2022).

Furthermore, there has been a significant increase in the number of nurses migrating abroad in recent years. While there are no published statistics on nurse migration (Bilim ve Sağlık Haber Ajansı, June 13, 2023), the Nurse Migration Tendency Study Report prepared by the Turkish Nurses Association (THD, 2023) suggests that this number will continue to rise in the coming years. Given that the reasons for nurse migration may differ from one country to another, it is essential to conduct country-specific studies to develop relevant health policies. This study aims to examine the push and pull factors that motivate nurses to migrate abroad for work. It is expected that the findings of the study will help health policymakers to reduce nurse migration.

2. MATERIAL & METHOD

2.1. Study Design

This study is a descriptive cross-sectional analysis of 270 nurses employed at public hospitals in Istanbul. The participants were chosen via a convenience sampling method.

2.2. Data Collection Tool and Methodology

Data collection was conducted through an online questionnaire, which was created using Google Form platform. The link to the questionnaire was shared with the participants via messaging applications on their mobile phones. Data collected between the dates of 10/09/2023 and 10/11/2023. The questionnaire is divided into two parts. The first part covers demographic information such as age, gender, education level, and marital status of the nurses. Additionally, this part contains questions related to their work life, including the unit of employment, total working time in nursing, and opinions and attempts on working abroad.

The nurses' workplace was analyzed under two categories: specialized and non-specialized units. According to the Ministry of Health, emergency services, oncology, adult and pediatric cardiovascular surgery services, intensive care services, burn unit, hand surgery services, bone marrow transplantation services, and genetic disease diagnosis centers require special planning in Türkiye (MoH, 2011). Nurses working in these units are classified as specialized, while the other category includes all units such as inpatient services, outpatient clinics, and administrative units that do not require specialized planning.

The working years of nurses were calculated in years. Those who had worked for less than one year were considered to have worked for one year. Those who did not declare a full year of working time were rounded up to a full year. For instance, 6 years and 7 months of working time were considered as 7 years.

Nurses' thoughts about working abroad and their previous efforts were evaluated with a multiple-choice question. Those who chose the option, "I do not intend to go abroad", are considered to have “no intention of migrating”. Those who have already applied or are trying to establish the necessary conditions for their application, as well as those who are still at the thinking stage, are considered to have an “intention of migrating”.

The second part of the questionnaire includes the Attitude Towards Brain Drain Scale, which was developed by Öncü et al. in 2018. This is a single-factor, two-component scale that is presented in a 5-point Likert format, with "strongly agree" representing 5 and "strongly disagree" representing 1. The two components of the scale are known as "pull factors" and "push factors", and it consists of a total of 16 statements. The lowest possible score that can be obtained from the scale is 16, while the highest score is 80. Higher scores indicate a positive attitude towards migration and an increased tendency to migrate.

2.3. Statistical Analysis

Frequency distributions of nurses' demographic and working life data are shown as mean and standard deviation. Independent Two Sample T test and One-way ANOVA test were applied for comparison between groups. Chi Square Analysis and Pearson Correlation Analysis were applied to examine the relationships between variables. Statistical significance was accepted at the 0.05 level.

2.4. Ethical Aspects of the Study

Approval was obtained from the Istinye University Social and Human Sciences Research Ethics Committee, numbered 93, and dated 07.09.2023, prior to conducting the study. The study adhered to the rules of the Declaration of Helsinki. Moreover, all participants whose data were collected in the study provided their consent before the survey was administered.

3. RESULTS

The study collected data from a total of 270 nurses. The mean age of the nurses included in the study was 33.6 ± 8.95 years. The study revealed that on average, the nurses had worked for 11 years. The majority of the nurses were female, married, and had undergraduate education. Additionally, most of the nurses did not work in a specialized unit, as shown in Table 1.

Table 1. Demographic and Working Life Data

Variable	Mean± (standard deviation)	Min-Max
Age (year)	33.6±8.95	21-58
Work Experience (year)	10.8±9.27	1-38
	Number	Percent
Gender		
Female	226	83.7
Male	41	15.2
Unspecified	3	1.1
Marital Status		
Single	120	44.4
Married	150	55.6
Education Level		
High School & associate degree	38	14.1
Bachelor's degree	194	71.9
Postgraduate	38	14.1
Working Unit		
Specialized Units	111	41.1
Non- specialized Units	157	58,2
Unspecified	2	0.7

The comparison of mean scores between nurses with and without intention to migrate revealed that those who intended to migrate had significantly higher mean scores in both push and pull factors, as shown in Table 2.

Table 2. Comparison of Push and Pull Factor Scores

Factors	Groups	n	Mean	SD	t / df / p
Push Factors	Non- intention of migrating	85	2.84	0.79	-12,877 / 268 / **<0.01**
	Intention of migrating	185	4.04	0.67	
Pull Factors	Non- intention of migrating	85	2.70	0.81	-12,138 / 268 / **<0.01**
	Intention of migrating	185	3.87	0.70	

SD: Standard Deviation

Considering all nurses, migration intentions of nurses according to gender, marital status, educational level and units of employment were analyzed by Chi-square test. The results showed that a significant difference was observed only in the unit of employment category (Table 3).

Table 3. An Inter-group Investigation of Nurses' Migration Intentions

Groups		Non- intention of migrating	Intention of migrating	Total	Value / df / p
Gender					
Female	Count	74	152	226	
	Expected Count	71.9	154.1	226.0	0.559
Male	Count	11	30	41	1
	Expected Count	13.1	27.9	41.0	0.455
Total	Count	85	182	267	
	Expected Count	85.0	182.0	267.0	
Marital Status					
Single	Count	33	87	120	
	Expected Count	37.8	82.2	120.0	1.587
Married	Count	52	98	150	1
	Expected Count	47.2	102.8	150.0	0.208
Total	Count	85	185	270	
	Expected Count	85.0	185.0	270.0	
Education Level					
High School & associate degree	Count	15	23	38	
	Expected Count	12.0	26.0	38.0	
Bachelor's degree	Count	56	138	194	2.247
	Expected Count	61.1	132.9	194.0	2
Postgraduate	Count	14	24	38	0.325
	Expected Count	12.0	26.0	38.0	
Total	Count	85	185	270	
	Expected Count	85.0	185.0	270.0	
Working Unit					
Specialized Units	Count	25	86	111	
	Expected Count	35.2	75.8	111.0	7.395
Non- Specialized Units	Count	60	97	157	1
	Expected Count	49.8	107.2	157.0	**0.005**
Total	Count	85	183	268	
	Expected Count	85.0	183.0	268.0	

The data collected from all nurses was analyzed to examine the correlation between age, working time, mean push factor score, and mean pull factor score, as shown in Table 4. The study found a significant but low-level negative relationship between age and pull factor score ($r = -0.154$; $p < 0.05$). Similarly, there was a negative and low-level relationship observed between working time and both factors' scores ($r = -0.134$; $p < 0.05$ and $r = -0.158$; $p < 0.01$, respectively).

Table 4. The Relationship between Age, Duration of Employment, and Push and Pull Factors

	1	2	3
1. Age			
2. Duration of Employment	0.929**		
3.Push	-0.105	-0.134*	
4.Pull	-0.154*	-0.158**	0.873**

**p<0.05, **p<0.01*

The study compared the push and pull factor scores of nurses who intended to migrate based on their gender, marital status, educational level, and working time. However, there was no statistically significant difference found between the groups in any of these variables ($p>0.05$) according to Table 5.

Table 5. Intergroup Comparison of Push-Pull Factors in Those with Migration Intention (n=185)

	Groups	n	Mean (SD)	t / F	p
Gender					
Push	Female	152	4.04 (0.68)	0.514	0.608
	Male	30	3.98 (0.63)		
Pull	Female	152	3.85 (0.72)	-0.675	0.501
	Male	30	3.94 (0.61)		
Marital Status					
Push	Single	87	4.01 (0.73)	-0.475	0.635
	Married	98	4.06 (0.62)		
Pull	Single	87	3.84 (0.74)	-0.489	0.625
	Married	98	3.89 (0.67)		
Education Level					
Push	High School & associate degree	23	4.20 (0.62)	0.778	0.461
	Bachelor's degree	138	4.01 (0.66)		
	Postgraduate	24	4.05 (0.79)		
Pull	High School & associate degree	23	4.09 (0.59)	1.381	0.254
	Bachelor's degree	138	3.83 (0.69)		
	Postgraduate	24	3.88 (0.83)		
Working Unit					
Push	Specialized Units	86	4.03 (0.64)	-0.151	0.880
	Non- Specialized Units	97	4.04 (0.71)		
Pull	Specialized Units	86	3.89 (0.69)	0.340	0.734
	Non- Specialized Units	97	3.85 (0.72)		

4. DISCUSSION

The sustainability of healthcare systems depends on the health workforce. Health workers play a crucial role in strengthening the resilience of communities and healthcare systems to cope with disasters caused by natural or man-made hazards, as well as environmental, technological, and biological risks (WHO, 2016). Nurses, in particular, are key to ensuring the delivery of high-quality care (Marufu et al., 2021). However, there is a global shortage of nurses (Baker, 2022; Parzonka et al., 2023; Baumann & Crea-Arsenio, 2023). This shortage is further exacerbated by the migration of nurses from developing countries to developed countries, which poses a significant challenge for some nations.

A study was carried out to investigate the reasons why nurses choose to work abroad, considering the push and pull factors. The study had 270 participants, of which 15% tried to go abroad, while 53% were only in the contemplation stage. This finding suggests that most nurses have a positive inclination toward brain drain. Similarly, a recent study conducted by the Turkish Nurses Association reported that the proportion of nurses who wanted to practice nursing abroad was relatively high (73%) (THD, 2023). The results of both studies reveal the fact that Türkiye may face a shortage of nurses in the near future.

Nursing emigration has been a global problem for a long time (Pang et al, 2002), which has left the health systems of some developed countries in a significant crisis. International professional organizations of nurses say that the brain drain of health professionals from poor countries is "out of control". As reported by the BBC earlier this year, Ghanaian nurses have applied for jobs in the UK's National Health Service (NHS) due to higher salaries and living conditions, which has caused their country's health system to collapse (BBC News Turkish). A similar situation is seen in Nigeria and Zimbabwe. In 2021 and 2022, 2600 nurses left Zimbabwe, as reported by The Guardian on August 14, 2023. In Nigeria, 12% of the total number of nurses had migrated as of 2000 (Okafor & Chimereze, 2020). While nurse emigration has not yet caused a significant crisis in Türkiye, there are indications that it may become a problem in the near future.

The study found a negative correlation between attitudes towards brain drain and age. In simpler terms, young people tend to have a more positive attitude towards brain drain. This aligns with the general population's attitude towards migration, as statistics from TurkStat show that the highest number of migrants in 2022 were in the 25-29 age group (TurkStat, July 24, 2023). Furthermore, pull factors like living and working conditions have a significant impact on young people's migration attitudes.

The brain drain phenomenon is characterized by individuals migrating to other countries in search of better opportunities. As a result, this could lead to a development and welfare gap between the emigrating and receiving

countries (Sarcan, 2022). This trend is observable in the migration pattern of health professionals from Türkiye, who often opt for Germany and England as destinations (Şen Olgay & Yurt, 2023; Beştaş, 2023).

However, in this study, the mean score of push factor (4.04±0.67) was higher than the mean score of pull factor (3.87±0.70). Several studies have been conducted on the reasons for brain drain among healthcare workers. According to Filiz et al. (2022), push factors such as problems in the country and lack of opportunities were found to be more effective than pull factors in the tendency of medical faculty students to migrate. Another study by Şen Olgay & Yurt (2023) identified political, economic reasons and future anxiety as push factors, while economic prosperity was found to be a pull factor. On the other hand, Ogaboh et al. (2020) concluded that remuneration, worker safety, and working conditions were significantly responsible for migration among healthcare workers in Nigeria. Similarly, Hashish & Ashour (2020) found that economic and environmental factors were the most important factors affecting nurse brain drain in Egypt. Based on these studies, it can be inferred that nurse migration in Türkiye is likely to be influenced by similar push-pull factors observed in other developing countries.

The migration of highly skilled health personnel is generally considered a loss of talent and an economic setback for a country (Kirigia et al, 2006; Adovor et al, 2021). This study found that working in a specialized unit had a significant association with migration. There could be two reasons behind this result. Firstly, nurses working in specialized units in Türkiye are generally young and have less work experience. Secondly, these nurses may have higher levels of professional self-confidence compared to others.

Nursing in a specialty unit requires many years of experience and in-service training for a certain period of time in appropriate certificate programs (SKS Hospital Set, 2020). Thus, nurses working in specialized units cannot be replaced quickly. For this reason, the migration of nurses working in specialized units can be considered as a separate sub-heading in studies aimed at preventing nurse migration.

Limitation: This study has limitations. Firstly, the sample includes nurses who work in public hospitals in Istanbul. Given the differences in personnel policies and working conditions between private and public hospitals in Türkiye, the results for nurses working in private hospitals may differ. Secondly, the survey's application relied on the voluntary participation of participants, thereby limiting the study's sample size. Future studies with larger samples and including private sector employees are recommended.

4. CONCLUSION

The issue of brain drain in health services has become a major concern in Türkiye and the rest of the world. The migration trend, which started with doctors, has now extended to nurses. Recent studies indicate that a significant number of nurses in Türkiye are considering working abroad. Among the nurses who expressed their interest in working abroad, the study found that their attitudes towards brain drain were significantly higher compared to others. Nurses working in specialized units showed a more positive attitude towards migration. However, those who are considering going abroad are mostly influenced by push factors. Nurses play a crucial role in any country's health system, and the supply of nurses is a significant issue for health ministries. Unfortunately, Türkiye has one of the lowest nurse supplies among OECD countries. This is already a problem, and the loss of existing nurses due to brain drain is likely to cause serious problems in health service delivery.

DECLARATION OF THE AUTHORS

Declaration of Contribution Rate: The first author contributes 40% while the second author contributes 30% and third author contributes 30%.

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REFERENCES

Adovor, E., Czaika, M., Docquier, F., Moullan, Y. (2021). Medical brain drain: how many, where and why?. Journal of Health Economics, 76, 102409, https://doi.org/10.1016/j.jhealeco.2020.102409.

Baker, D. W. (2022). Addressing the nursing shortage in the United States: An interview with Dr. Peter Buerhaus. Joint Commission Journal on Quality and Patient Safety, 48(5), 298.

Baumann, A., Crea-Arsenio, M. (2023, July). The crisis in the nursing labour market: Canadian policy perspectives. In Healthcare, 11(13), 1954).

BBC News Turkish. Access address: https://www.bbc.com/turkce/articles/c25v0j4zj7xo, (01.10.2023).

Beştaş, İ. (2023). Doktor istifaları ve yurt dışı göçü (2020-2022) medya yansımaları. Sosyal Bilimlere Çok Yönlü Yaklaşımlar: Tarih, Turizm, Eğitim, Ekonomi, Siyaset ve İletişim, Bölüm 10. s.213-271. Gaziantep. Özgür Yayınları.

Bilim ve Sağlık Haber Ajansı, 13 Haziran 2023. Access address: https://www.bsha.com.tr/thd-baskani-ozbastan-hemsire-gocu-degerlendirmesi-tutamiyoruz/, (14.10.2023).

Çetin, M. E., Bükey, A. M., Denli, M. B. (2022). Sağlık harcamalarına etki eden faktörler: hekim ve hemşire istihdamı üzerine bir çalışma. JOEEP: Journal of Emerging Economies and Policy, 7(2), 224-232.

Drennan, V. M. & Ross, F. (2019). Global nurse shortages: the facts, the impact and action for change. British Medical Bulletin, 130(1), 25-37.

Dzinamarira, T., Musuka, G. (2021). Brain drain: An ever-present; significant challenge to the Zimbabwean public health sector. Public Health in Practice, 2,100086.

Filiz, M., Karagöz, M. B., Karagöz, N. (2022). Tıp fakültesi öğrencilerinin beyin göçüne yönelik tutumlarının değerlendirilmesi. Karadeniz Sosyal Bilimler Dergisi, 14(27), 679-692.

GOV.UK (14 July 2020). Access adress: https://www.gov.uk/government/news/government-launches-health-and-care-visa-to-ensure-uk-health-and-care-services-have-access-to-the-best-global-talent, (27.08.2023).

Government of Canada. Access adress: https://www.canada.ca/en/immigration-refugees-citizenship/news/2023/06/canada-announces-new-immigration-stream-specific-to-health-workers.html, (14.10.2023).

Hashish, E. A., Ashour, H. M. (2020). Determinants and mitigating factors of the brain drain among Egyptian nurses: a mixed-methods study. Journal of Research in Nursing, 25(8), 699-719.

Kirigia, J. M., Gbary, A. R., Muthuri, L. K., Nyoni, J., Seddoh, A. (2006). The cost of health professionals' brain drain in Kenya. BMC Health Services Research, 6(1), 1-10. doi:10.1186/1472-6963-6-89.

Make it Germany. Access address: https://www.make-it-in-germany.com/en/working-in-germany/job-listings, (01.10.2023).

Marufu, T.C., Collins, A., Vargas, L., Gillespie, L., Almghairbi, D. (2021). Factors influencing retention among hospital nurses: systematic review. British Journal of Nursing, 30(5), 302-308.

MoH Türkiye (2011). Türkiye'de Özellikli Planlama Gerektiren Sağlık Hizmetleri (2011-2023). Access adress: https://dosyamerkez.saglik.gov.tr/Eklenti/21993/0/Türkiyede-ozellikli-planlama-gerektiren-saglik-hizmetleripdf.pdf, (26.08.2023).

OECD (2023). Nurses (indicator). doi: 10.1787/283e64de-en. Access adress: https://www.oecd-ilibrary.org/social-issues-migration-health/nurses/indicator/english_283e64de-en, (24.08.2023).

Ogaboh, A. A., Udom, H. T., Eke, I. T. (2020). Why brain drain in the Nigerian health sector. Asian J Appl Sci, 8(2),95-104.

Okafor, C., Chimereze, C. (2020). Brain drain among Nigerian nurses: Implications to the migrating nurse and the home country. International Journal of Research and Scientific Innovation, 7(1), 15-21.

Öncü, E., Selvi, H., Vayisoğlu, S. K., Ceyhan, H. (2018). Hemşirelik öğrencilerinde Beyin Göçüne Yönelik Tutum Ölçeği geliştirilmesi: güvenirlik ve geçerlik çalışması. Cukurova Medical Journal, 43(Ek 1), 207-215.

Pang, T., Lansang, M. A., Haines, A. (2002). Brain drain and health professionals: a global problem needs global solutions. Bmj, 324(7336), 499-500.

Parzonka, K., Ndayishimiye, C., Domagała, A. (2023). Methods and tools used to estimate the shortages of medical staff in European Countries—scoping review. International Journal of Environmental Research and Public Health, 20(4), 2945.

Peters, A., Palomo, R., Pittet, D. (2020). The great nursing brain drain and its effects on patient safety. Antimicrobial Resistance & Infection Control, 9(1), 1-3.

Quamruzzaman, A. (2020). Exploring the impact of medical brain drain on child health in 188 countries over 2000–2015. Societies, 10(4), 73.

Sarcan, E. (2022). Yüksek vasıflı işgücünün göçü: beyin göçü. Ankara Üniversitesi Sosyal Bilimler Dergisi, 13(2), 69-75.

SKS Hospital Set. (2020). Sürüm 6.1. ISBN: 978-975-590-766-6, Sağlık Bakanlığı Yayın No: 1156. Access address: https://dosyamerkez.saglik.gov.tr/Eklenti/41258/0/skshastane-seti-s-61--09082021pdf.pdf, (15.10.2023).

Şen Olgay S, Yurt S. (2023). Türkiye'den İngiltere'ye göç eden sağlık çalışanlarının göç nedenleri ve yaşam doyumlarının belirlenmesi. Sağlık ve Hemşirelik Yönetimi Dergisi, 10(1),99-107. doi: 10.54304/SHYD.2023.60565.

THD (2023). Hemşire Göç Eğilim Çalışması Raporu. Türk Hemşireler Derneği. Access adress: https://www.thder.org.tr/uploads/subeler/THD%202023/hemsire_goc_egilimi_calismasi_ra.2023-.pdf, (26.08.2023).

the Guardian, 14 Ağustos 2023. Access address: https://www.theguardian.com/global-development/2023/aug/14/africa-health-worker-brain-drain-acc, (14.10.2023).

TurkStat, 24 Temmuz 2023. Access address: https://data.tuik.gov.tr/Bulten/Index?p=Uluslararasi-Goc-Istatistikleri-2022-49457#:~:text=T%C3%9C%C4%B0K%20Kurumsal&text=Yurt%20d%C4%B1%C5%9F%C4%B1nda n%20T%C3%BCrkiye'ye%20g%C3%B6%C3%A7,%C3%BCn%C3%BC%20ise%20yabanc%C4%B1%20uyruklular%20olu%C5%9Fturdu, (13.10.2023).

WHO (2016). World Health Organization. Global strategy on human resources for health: Workforce 2030. Access address: https://apps.who.int/iris/bitstream/handle/10665/250368/9789241511131-eng.pdf, (24.08.2023).

Xu, G., Zeng, X., & Wu, X. (2023). Global prevalence of turnover intention among intensive care nurses: A Meta-Analysis. Nursing in Critical Care, 28(2), 159-166.