

Brain Drain-Related Perspectives of Senior Nursing Students in Türkiye: A Qualitative Study

Türkiye'deki Son Sınıf Hemşirelik Öğrencilerinin Beyin Göçüyle İlgili Görüşleri: Nitel Bir Çalışma

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ABSTRACT

Objective: This study was aimed at investigating the brain drain-related perspectives of nursing students who wanted to emigrate in depth.

Methods: The study has the descriptive qualitative research design. The population of the study comprised 13 senior nursing students studying at the Faculty of Nursing of a university and intending to emigrate abroad. Data were collected through face-to-face individual in-depth interviews. The interviews were audio-recorded after the participants' permission was obtained. This study adopted a qualitative research design based on inductive content analysis to explore the participants' perspectives in depth.

Results: In this study, three themes emerged from the students' opinions: "Perception of brain drain", "Motivation behind brain drain" and "Challenges". The first theme reflected students' varied views on migration, including both positive and negative perceptions, a growing social trend towards emigration, and feelings of hopelessness and dissatisfaction with nursing in Türkiye, leading to the formation of personal migration plans. The second theme captured motivations such as the influence of relatives and role models abroad, favourable personal conditions, attractive opportunities overseas, language efforts, and openness to new experiences. The final theme focused on challenges, including push factors like poor working conditions and low wages, barriers such as language and time constraints, and emotional concerns such as loneliness and cultural adjustment.

Conclusion: The study showed that nursing students' intention to emigrate stems from mixed perceptions of brain drain, strong personal and social motivations, and various emotional and structural challenges. Addressing these issues may help mitigate future nurse migration.

Keywords: Brain drain, nurse migration, nursing student

ÖZ

Amaç: Bu çalışmada, göç etmek isteyen hemşirelik öğrencilerinin beyin göçü ile ilgili perspektiflerinin derinlemesine incelenmesi amaçlanmıştır.

Yöntemler: Çalışma, tanımlayıcı nitel araştırma tasarımına sahiptir. Çalışmanın evrenini, bir üniversitenin Hemşirelik Fakültesinde öğrenim gören ve yurtdışına göç etmeyi planlayan 13 son sınıf hemşirelik öğrencisi oluşturmuştur. Veriler, yüz yüze yapılan bireysel derinlemesine görüşmeler ile toplanmıştır. Katılımcılardan izin alındıktan sonra görüşmeler ses kaydına alınmıştır. Verilerin analizinde, Teorik Kodlamaya uygun olarak içerik analizi yapılmıştır.

Bulgular: Çalışmada, öğrencilerin görüşlerinden üç tema ortaya çıkmıştır: "Beyin göçü algısı", "Beyin göçünün motivasyonları" ve "Zorluklar". Beyin göçüne yönelik algıları olumlu olandan olumsuz doğru değişmiş, toplumda bir göç eğilimi gözlemlenmiş, Türkiye'deki hemşirelikten memnun olmadıkları ve gelecek için umutsuz hissettikleri belirlenmiştir. Çalışma koşulları, yurtdışındaki ekonomik refah ve kariyer olanakları, Türkiye'de yaşanan mobbing, ağır iş yükü ve sağlıkta şiddet, öğrencilerin göç etme motivasyonlarını oluştururken, göç edecekleri ülkede karşılaştıkları kültürel ve dil farklılıkları ise karşılaştıkları zorluklar olmuştur.

Sonuç: Göç etmek isteyen öğrencilerin perspektiflerini oluşturan faktörlerin bir kısmı kontrol edilebilir, bir kısmı ise kişisel niteliktedir. İş yüklerinin azaltılması, ekonomik destek sağlanması ve kariyer olanaklarının artırılması durumunda, öğrencilerin Türkiye'de kalma eğilimlerinin artabileceği düşünülmektedir.

Anahtar Kelimeler: Hemşirelik öğrencisi, beyin göçü, hemşire göçü

Geliş Tarihi/Received 28.10.2024
Revizyon Talebi/Revision 17.05.2025
Requested
Son Revizyon/Last Revision 31.05.2025
Kabul Tarihi/Accepted 22.07.2025
Yayın Tarihi/Publication Date 12.09.2025

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Cite this article: Tuncer M, Tuncer GZ.
Brain Drain-Related Perspectives of Senior
Nursing Students in Türkiye: A Qualitative
Study. *J Nursology*. 2025;28(3):303-314.
doi: 10.17049/jnursology.1574741



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INTRODUCTION

According to data released in 2020 by the WHO, global shortage of nurses was 5.9 million. The WHO estimates that 10.6 million additional nurses will be needed by 2030, as the number of nurses is not sufficient for the global population growth.¹ In developing countries such as Türkiye, nursing emerges as one of the most migration-prone professions due to structural problems such as poor working conditions, increased workload, and limited career opportunities.^{2,3} These conditions not only undermine job satisfaction and professional commitment but also trigger nurse migration, thereby exacerbating the nursing shortage both in Türkiye and globally.⁴⁻⁶ Almost all of the developed countries rely on immigrating nurses to solve the nursing shortage problem.⁷ However, global shortage of nurses adversely affects not only developed countries but also developing countries.^{8,9} Nurse migration is mostly from developing countries to developed countries, which increases the nurse shortage in sending countries.¹⁰⁻¹² Sending countries are also faced with the rapid aging of the remaining nurse workforce, since the majority of emigrating nurses are young,^{13,14} which leads to an increase in the workload in the health systems in these countries, in inequality in access to services, to a decrease in the quality of care, and to a loss of investments they make in nurse education.¹³⁻¹⁵ In countries experiencing nurse emigration, the increase in the patient-to-nurse ratio contributes to the unequal distribution of the global health workforce.¹⁶ In these countries, increased workload and unsuitable working conditions due to migration create a vicious circle, causing an increase in nurse migration.⁷ The push–pull theory is commonly used to explain nurse migration.² Push factors refer to conditions that drive individuals to leave their home country, such as low wages, job insecurity, and poor working conditions.¹⁷ In contrast, pull factors include higher salaries, better quality of life, and greater career opportunities abroad.^{6,18} While this framework explains structural factors, deeper psychological and social aspects remain underexplored.

Factors affecting nursing students' tendencies to emigrate vary from country to country. In studies conducted with nursing students in developing and underdeveloped countries, it was determined that tendency to migrate was high among them.^{19,20} In a study conducted with 3,053 nursing students in Türkiye, 73.3% stated that they intended to work in a foreign country after graduation. The study also found that migration intention was higher among students who spoke more than one language and those who had participated in student exchange programmes.¹¹ In a descriptive study involving 473 nursing

students from border provinces in Türkiye, 84.6% reported a desire to work abroad, particularly those with good foreign language proficiency and prior international experience.²¹ In a descriptive study conducted with 617 nursing students in Türkiye, 66.3% stated that they intended to work abroad after graduation, despite having no international experience or detailed knowledge of working conditions. The tendency to emigrate was higher among students with lower income levels, lower parental education, and those with relatives living abroad, highlighting the need to explore the deeper psychosocial meanings of this inclination through qualitative research.¹⁹ In low-income countries, migration intention was reported as 91.3% in Indonesia and 92.5% in Nepal, slightly higher than in our country. Key influencing factors included poor working conditions, low salaries, prior overseas experience, foreign language skills, and limited employment opportunities.^{13,22}

Nursing students' tendency to migrate has revealed that the problem of nurse shortage in Türkiye may continue in the future.¹¹⁻¹³ Although numerous quantitative studies have examined the migration intentions of nursing students,^{19,23} only a limited number of qualitative studies have explored the deeper psychological and sociocultural dynamics underlying these intentions.^{24,25} The existing literature is largely descriptive and tends to focus on statistical trends, offering limited insight into how nursing students perceive, interpret, and emotionally experience the phenomenon of brain drain. Therefore, this study aims to contribute to the limited body of qualitative research by capturing the nuanced perspectives of senior nursing students in Türkiye through a qualitative approach. It is also very important to identify psychosocial factors that cause nursing students to migrate, because it will make it possible to identify areas where students will be supported throughout their education and training activities. It is also very important to understand the brain drain-related perceptions of nursing students who intend to emigrate in order to create policies and make plans for the future of the healthcare workforce. Therefore, this study aims to fill this gap through a qualitative approach.

AIM

The present study was aimed at investigating the brain drain-related perspectives of nursing students who wanted to emigrate in depth.

Research questions/hypothesis

- What are the brain drain-related perspectives of nursing students who want to emigrate?

METHODS

Design

The study has a descriptive qualitative research design, one of the qualitative research methods. In this research design, the phenomenon (action or experience) is analyzed in line with the individuals' perspectives on this phenomenon. The descriptive qualitative research design is preferred especially by researchers conducting studies on health issues because it enables them to determine people's feelings and actions regarding the issue they investigate. The Consolidated Criteria for Reporting Qualitative Research (COREQ) was utilized to ensure the accurate reporting of this research.

Participants

Senior nursing students studying at Dokuz Eylül University Faculty of Nursing between July and September 2023 constituted the population of the present study. Of these senior students, those who met the inclusion criteria comprised the sample of the study. The inclusion criteria of the study were as follows: Studying at Dokuz Eylül University Faculty of Nursing, not having a hearing problem that prevents the person from understanding verbal explanations and carrying out them, having received a score of ≥ 50 from the Attitude Scale for Brain Drain, which

indicates that the person has the intention to migrate, and agreeing to participate in the study.

The sample size was determined through purposive sampling, which is appropriate for qualitative research aiming to capture rich and detailed data. This method allows researchers to identify individuals who are most capable of providing in-depth and meaningful insights, thus enhancing the quality and relevance of the data collected. All eligible senior nursing students were invited to participate, and 13 students who met the inclusion criteria and volunteered were interviewed. Data collection was continued until thematic saturation was achieved that is, no new codes or themes were identified during the final interviews. In this study, thematic repetition began to occur after the 11th interview, and no new categories emerged in the final two, confirming the adequacy of the sample.

Each participant was interviewed once. The mean age of the students participating in the study was 22.92 years. Of the students, 8 were men, 8 had a medium income level, 10 could not speak any foreign language, 6 stated that they wanted to immigrate to Germany, 12 had no experience abroad, and 7 had relatives abroad (Table 1).

Table 1. Sociodemographic and Descriptive Characteristics of the Participants

Student (S)	Age (years)	Sex	Socio-economic status	Spoken foreign language	Destination country for brain drain	Experience of abroad	Acquaintances abroad
S-1	26	Man	Income less than expenses	None	Germany	Unavailable	Friend
S-2	22	Woman	Income equal to expenses	None	Germany	Unavailable	Relative
S-3	23	Woman	Income equal to expenses	None	Canada	Unavailable	None
S-4	23	Woman	Income less than expenses	None	Germany	Unavailable	Relative
S-5	22	Woman	Income equal to expenses	English	UK	Unavailable	Relative
S-6	23	Man	Income equal to expenses	None	USA	Unavailable	None
S-7	23	Man	Income less than expenses	None	Germany	Unavailable	Relative
S-8	27	Man	Income less than expenses	None	UK	Unavailable	None
S-9	22	Woman	Income more than expenses	English	France	Available	Relative
S-10	23	Woman	Income equal to expenses	None	Germany	Unavailable	None
S-11	22	Woman	Income equal to expenses	None	Germany	Unavailable	Relative-Friend
S-12	21	Woman	Income equal to expenses	English	UK	Unavailable	Friend
S-13	21	Woman	Income equal to expenses	None	USA	Unavailable	Relative

Data Collection Tools

Student Information Form: The form prepared by the researchers is administered to obtain information about the participants' descriptive characteristics such as age, year at school, place of residence, socioeconomic status, ability to speak a foreign language, and the country they want to immigrate to.

Attitude Scale for Brain Drain: The scale was developed in 2018 and its psychometric suitability was tested for Turkish population.² The 16-item scale is administered to

find out the participants' attitudes towards brain drain. Responses given to the items are rated on a 5-point Likert type scale ranging from 1 (strongly agree) to 5 (strongly disagree). The scale has a unidimensional structure. Two of the items are reverse scored. The maximum and minimum possible scores that can be obtained from the scale are 80 and 16, respectively. The higher the score obtained from the scale is the more favorable the student's attitude towards brain drain is. In the Turkish validity and reliability study of the scale, the Cronbach's value was 0.91.

Semi-structured Interview Form: The form consists of five semi-structured interview questions prepared by the researchers to determine the brain drain-related feelings and thoughts of nursing students who want to emigrate in light of the literature in such a way that the interviewees could understand them easily.^{26,27} To ensure content validity, expert opinions were obtained from two faculty members specialized in psychiatric nursing and qualitative research methods. The form includes a total of four main and six sub-questions. Although a formal pilot study was not conducted, the interview guide was reviewed in line with expert feedback and revised for clarity and feasibility based on a preliminary application with a nurse participant. The main interview questions of the study are as follows: "What are your feelings and thoughts about brain drain?", "What are the factors that form and affect your career plan?", "How did your desire to migrate arise?", "What are the motivating/influencing factors that activate such an intention?"

Data collection process

In line with the purposeful sampling method used in the study, an announcement was sent to all the senior students studying at the faculty of nursing via e-mail. Students who responded to the study announcement were first administered the Attitude Scale for Brain Drain. Only those who scored 50 or above, indicating a confirmed intention to migrate, were included in the interviews. Written consent was obtained from the students who responded to the announcement in line with the inclusion criteria.

After the researcher introduced herself to the volunteer participants, and explained what the purpose of the study was and how it would be conducted to them, the research was conducted. Then, data was obtained through face-to-face individual in-depth interviews. The interviews were held in the meeting room of the Faculty of Nursing and audio-recorded after the participants' permission was obtained. The meeting room which has a calm, quiet and confidential environment was arranged in advance in such a way that the meetings would continue without interruption. The mean duration of each interview was approximately 21 minutes.

Statistical Analysis

The analysis of the study data was conducted independently and manually by both researchers. Thematic analysis was conducted following a six-phase framework. These phases included: (1) familiarization with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. This inductive approach allowed

themes to emerge directly from the participants' narratives, ensuring that the analysis remained grounded in the data. First, the researchers familiarised themselves with the data through repeated reading of the transcripts. Initial codes were then generated to capture meaningful features of the data. Both researchers coded the transcripts independently and then compared their codes. Any discrepancies were resolved through discussion until full agreement was reached. In the third phase, these codes were grouped into potential themes, which were subsequently reviewed and refined in the fourth phase. In the fifth phase, themes were clearly defined and named. Finally, the sixth phase involved writing a coherent report, incorporating vivid quotations to support each theme. The coding and theme development processes were inductive and data-driven, ensuring that the findings were grounded in participants' own expressions. After the themes were generated, expert opinions were obtained from five academics experienced in qualitative research in order to enhance the content validity of the analytical findings. Themes emerged after the coding.

Rigor

In qualitative research, the characteristics of the researchers and their potential influence on the study must be clearly described. In this study, the trustworthiness of the data was ensured through the principles of credibility, dependability, confirmability, and transferability. The research team consisted of one female and one male nurse educator, both with extensive academic experience, strong therapeutic communication skills, and prior involvement in research on brain drain. The interviews were designed with sensitivity to the emotional and potentially controversial aspects of the topic. To ensure participants felt safe and free to express themselves, the researchers employed key elements of the therapeutic relationship. The second interviewer established effective and empathetic communication without judgment or guidance, fostering trust an essential aspect of credibility in qualitative research. The interviews were conducted by one of the researchers who was also a faculty member at the same institution where the participants were enrolled. Due to prior academic interaction with the students, it is possible that the researcher's role may have influenced the participants' responses. To mitigate this, the researcher made efforts to maintain neutrality, refrained from giving verbal or nonverbal feedback during interviews, and followed the semi-structured guide strictly.

To ensure confirmability, the researcher summarized the main points of each interview to participants at the end of the sessions and sought confirmation or additional input.

For transferability, variation in participant demographics (e.g. age, gender) was ensured, and all procedures were thoroughly documented. To enhance dependability, all interviews were conducted by the same researcher using a semi-structured interview guide. To ensure inter-coder reliability, the data were independently coded by two researchers. The initial codes were compared, and any discrepancies were discussed until a consensus was reached. This process enhanced the credibility and consistency of the findings.

Ethical Considerations

Before the research process was started, ethical approval from the Dokuz Eylül University Non-Interventional Ethics Committee (decision number: 7852-GOA, protocol number: 2023/05-39) and the permission from the institution where the study was to be conducted were obtained, all the participants were informed about the purpose of the research and they were told that the interviews would be audio-recorded. Then, their written and verbal consent was obtained.

RESULTS

In this study, three themes emerged from the students' opinions: "Perception of brain drain", "Motivation behind brain drain" and "Challenges" (Figure 1). The identified themes and subthemes are summarised in Table 2, along with representative participant quotations (Table 2).

THEME 1. Perception of brain drain

This theme was identified to describe how senior nursing students make sense of brain drain on both personal and social levels. Migration was not only seen as a professional decision but also shaped by emotional, ethical, and cultural considerations. Different meanings emerged in relation to perceived opportunities, national responsibilities, and observed social trends.

Perceptions from positive to negative: Some of the participating students perceived brain drain positively. Some of the students expressed a negative perception of emigration that is harmful to the country.

Perceived collective influence: Some of the participating students described migration as a shared trend among peers and professionals. They observed that not only nurses but individuals from various fields were considering emigration. Social media was also mentioned as a factor that contributed to the visibility and normalisation of this collective tendency.

Hopelessness: Views of interviewees revealed a hopeless perspective on the development of nursing in Türkiye.

Lack of satisfaction: The students stated that they observed the nurses they took as a role model and noticed that they were not satisfied with the functioning of nursing in Türkiye, based on their observations. The students also stated that they were not satisfied with the life they lead.

Plans: The students stated that they aimed to save money, to gain professional experience, to complete their personal development and to improve the foreign language they spoke in order to realize their plans to migrate. Some of the students stated that they planned to return after working abroad.

THEME 2. Motivation behind brain drain

This theme was constructed to reflect the various factors that appeared to influence students' intentions to migrate. Both personal and contextual elements, such as individual aspirations, role models, and perceived opportunities abroad, were mentioned in the narratives. These factors were often interrelated and developed over time.

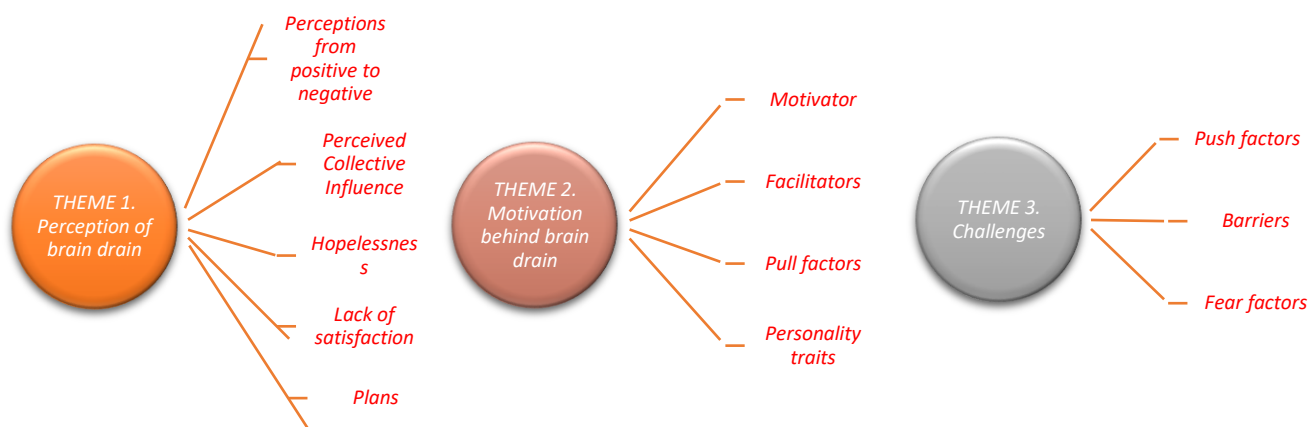


Figure 1. Themes and subthemes regarding student nurses' perceptions of brain drain

Table 2. Themes, Subthemes, and Supporting Participant Statements

Theme	Sub-theme	Participant statements
Perception of brain drain	Perceptions from positive to negative	"I will work there with different perspectives. I think my contribution to them and their contribution to me, due to different perspectives, will make it better, and this not only contributes to me individually, but also contributes to science and society, you know, indirectly" (S-10). "Türkiye will get worse as they go abroad because we lose the qualified work force in the brain drain. In this case, since the qualified people are abroad, there will be fewer qualified people in Türkiye, which will worsen Türkiye's situation. My country is getting worse this time" (S-4).
	Perceived Collective Influence	"Everyone around me, whether they are nurses or not, whether they are healthcare professionals or not, everyone has this thought in their mind. If I had the chance, I would flee the country as soon as possible. Almost everyone feels like that" (S-8).
	Hopelessness	"When I first start the profession, they will have me work in emergency or intensive care. I noticed that there was mobbing there too, especially against new nurses. I think I will be stuck in their workload. You know, if I graduate and stay here, I will be in this circle too" (S-5). "I would like to be useful to my country and to the people here. I am very used to the culture here and I love it. I don't want to go, but I have to. I have to leave in order to live humanely" (S-9).
	Lack of satisfaction	"We care for so many patients that we cannot concentrate on one patient. We cannot approach the patient holistically; we cannot look after the patient's mental health... I wanted more satisfaction both in terms of salary and living conditions" (S-2). "I think I come into this world only once, so why should I live with difficulty all the time? You know, why should I do with less when I have the chance to live better and to be happier?" (S-13).
	Plans	"I have to bring myself to a sufficient level professionally. I must also be adequate in terms of speaking a foreign language" (S-10). "I want to go and come back. I don't want to stay there for a long time. I want to complete my education in a short time, work a little and come back, feel satisfied and then come back" (S-3).
Motivation behind brain drain	Motivator	"My elder brother went to the USA and spent some time there and then went to some other countries. What he told me about abroad, about the opportunities there, about his own life struggle abroad and about how he managed there, all these encouraged me to go abroad" (S-10). "I had graduate professors, one of whom had just gone to Germany. "She" for example, was an inspiration for me" (S-13). "It also stems from experience. You work, you look at the people you serve, you constantly look at the people who come, you become ambitious, and this whips you up. You want more" (S-1).
	Facilitators	"My age is an advantage. I am very young and single right now. There is nothing to attach me to this country. All these are facilitators for me right now. You know, it would be difficult if I were a little older or had a job... I don't have a job right now, I'm just a student. "If I had a job, it would be a bit difficult to go there" (S-3). "I can get used to the culture there. I think it will be difficult at first, but then I will adapt. I think if I go there, I won't feel like a stranger" (S-2). "I need to be very good at speaking the language spoken in the country where I will go in order to adapt there. So, I try to do something to improve the language on my own" (S-11). "As far as I know, I am entitled to work when I take the skills exam with this training. I think I can pass the skills exam when I take it" (S-3).
	Pull factors	"I think nurses get their rights there, at least in terms of working hours. They work 7 or 8 hours a day. They can spare time for themselves on the remaining hours. They can participate in social activities because we have a life outside the hospital as well" (S-1). "I can barely make ends meet here with my salary, but it is not like that abroad. Purchasing power is better abroad. I can make ends meet easily there. I can even save money and make big investments here, in my country, due to exchange difference resulting from the high inflation rate" (S-8). "In Germany, I think I can improve myself in terms of innovation and entrepreneurship rather than nursing because Germany supports you economically and encourages entrepreneurship if you are its citizen, and provides opportunities in terms of capital and loans" (S-1).

Table 2. Themes, Subthemes, and Supporting Participant Statements (Continued)

Theme	Sub-theme	Participant statements
Motivation behind brain drain	Personality traits	"I mean, I want to research, to learn constantly, to learn new things because I am very curious. I constantly research and try to read" (S-1). "Some people want to be appointed here, to establish a settled life and to practice their profession. In my opinion, this is a very boring, very depressing life. That's why I want to enjoy life and have new experiences while I'm young" (S-5).
	Challenges	
Challenges	Push factors	"Nurses do not get the value they deserve. They don't earn respect. People look down on nursing" (S-4). "There are many patients in the wards, but there are few nurses and they cannot keep up with anything, and they have a lot of trouble with patients' relatives" (S-5). "Even if I start here, the salary I will receive will be limited and it is not possible for me to buy a house or a car here with the salary I will receive. I will barely be able to maintain my basic needs" (S-3). "There is a superior-subordinate relationship between physicians and nurses. I am against such a hierarchy in the hospital. My tasks are different; their tasks are different. Physicians' perspective of us makes me anxious" (S-1). "Increasing violence perpetrated by patients' relatives... we cannot get our rights... because even if a needle pricks our fingers or if we are treated wrongly, there is no one behind us to defend our rights" (S-5).
	Barriers	"My foreign language level is not good. I believe that if I can achieve "C" on the language exam, I will definitely go there because I am confident in my professional competence, in practice" (S-8). "Frankly, I cannot say the school was very helpful. I am trying to improve my foreign language as much as I can. I try to go to foreign language courses on weekends, but generally I can't because I have internships on weekends" (S-6).
	Fear factors	"Going to a completely different country is scary and going there without being able to speak the language spoken in that country is even scarier. How will you talk to people there because you can't speak their language at all...?" (S-6). "I guess there is a disadvantage, living alone... and I will be away from my family too. How would I manage loneliness; it scares me..." (S-2). "Being alone makes me anxious because we are very much involved with each other in our society. Here, if someone falls (e.g. stumbles) we all help the person. We are not alone here. I feel like people's being reserved (keeping at a distance) there will upset me; being alone... or the differences in communication... will all upset me" (S-5).

Motivator: People or sources such as relatives abroad, professors with migration experience, and professionals seen on social media were noted as influential in shaping students' intention to emigrate. The students stated that what they learned from the experiences of their relatives living abroad was a motivator. The students stated that those who encouraged them to emigrate were their role models. The students stated that wanting something more was also a motivator.

Facilitators: The students stated that young age, being single and being a student facilitated the emigration process. The students stated that having relatives and acquaintances living abroad reduced their anxiety. The majority of the students stated that improving their language skills would make it easier to go abroad. Students stated that the equivalence of a bachelor's degree would make it easier to work abroad.

Pull factors: Students stated that they found western countries attractive in terms of working conditions and being able to spare time for social activities there. The majority of students stated that they wanted to immigrate to western countries to ensure their economic well-being. The students also stated that they preferred European countries due to their welfare state features and career opportunities.

Personality traits: Several of the students said that their enthusiasm for learning new things increases their tendency to emigrate. They also stated that being open to experiences also increased their tendency to emigrate.

THEME 3. Challenges

This theme was developed to outline the challenges mentioned by participants in relation to migration. Some of these challenges were linked to the healthcare system in Türkiye, while others referred to emotional and practical concerns about adapting to a new country. These difficulties were not necessarily described as obstacles, but as elements that may affect the decision-making process.

Push factors: The majority of the participants addressed the following as the push factors for emigration: low value given to nurses, economic difficulties, the existence of a hierarchical relationship between physicians and nurses, heavy workload and violence against health professionals. The students stated that they wanted to emigrate because they thought that nursing was undervalued. The students stated that heavy workload affected their decisions. The students stated that nursing did not pay them adequately. The students stated that mobbing they were exposed to and hierarchical structure in the hospital gave them a hard

time. The students stated that they tended to emigrate because they were subjected to the violence perpetrated by patients and their relatives and thus they lacked occupational health safety.

Barriers: The students stated that the main obstacle to their emigration plans was the language barrier. The students stated that the busy schedule at the school and lack of opportunities to prevent emigration tendency were the barriers to their goals.

Fear factors: The students stated that not being able to speak the language spoken in the country to be immigrated to is a major fear factor regarding immigration. The students stated that they were worried about being alone abroad and not receiving any support. The students stated that they were worried about the difficulties of life abroad and cultural differences.

DISCUSSION

THEME 1. Perception of brain drain

In the present study, of the participants, some displayed favorable attitudes towards brain drain, and some displayed unfavorable attitudes. The participants also stated that there was a general tendency towards brain-drain migration in recent years, that not only nurses but also members of all other professions were involved in this trend, and that social media affected this trend. In recent studies conducted with nursing students in Türkiye, of them, 66.3% wanted to work abroad even during school years and 73.3% wanted to work abroad after graduation.¹¹⁻¹⁹ In another study conducted in the last year, not only nursing students but also a high rate of medical students (77.5%) wanted to emigrate.¹⁸ Among nursing students studying in underdeveloped and developing countries, similar rates of tendency to emigrate were observed.¹²⁻¹⁵ The increase in the tendency to emigrate in developing countries is normal. However, to realize it is more complicated. All socioeconomic and sociodemographic factors and personal interests must be compatible. Therefore, not only economic advantages but also career opportunities should meet expectations.

Nurses currently in practice also stated that the emigration of other nurses increased this trend and that widely held ideas, such as the educational opportunities abroad, trust in foreign education systems, and favourable perceptions of Western professional structures, encouraged migration.²⁸ This situation is probably due to the snowball effect that today's use of social media has on young people. It seems that positive migration experiences shared on social media led to a pull effect on nurses. In addition, the

healthcare workers' wage protests and news on violence against healthcare workers on social media strengthen the desire for migration. In the present study, the students stated that they wanted to improve their language and then to return to their home country after working for a certain time there. Nursing students express a desire to return to their home countries after working for a certain period.¹⁵ However, it has been observed that working nurses who want to migrate oscillate between two extreme thoughts (e.g. temporary immigration and permanent immigration) because they want to send money to their families.²⁹ This is probably due to differences in the age, sense of belonging and psychosocial support systems of working nurses.

The participants in the present study also stated that they were not satisfied with the functioning of nursing in the country and that they felt hopeless for the future. Nurses think that nurses working abroad have not only better economic opportunities but also higher social status.²⁶ Health sciences students often reported that they did not feel safe in their own country and that their country did not provide them with a perspective. It also seems that students tend to stay in their country if their lifestyle is compatible with that in the country.³⁰ Nurses' failing to fulfill their responsibilities of providing holistic care to the patient due to their heavy workload reduces the quality of care.³¹ In contexts where nurses are unable to provide holistic care, professional dissatisfaction may arise. This dissatisfaction could contribute to increased emigration tendencies, potentially leading to a rise in workload for those who remain and creating a self-reinforcing cycle. That the independent decision-making roles of working nurses are limited is thought to reduce students' satisfaction too. Furthermore, limited promotion opportunities despite completing postgraduate education might also be considered a contributing factor to this cycle.³²

THEME 2. Motivation behind brain drain

In the present study, the students' personality traits such as having language skills, having a diploma equivalent to the diploma in the country to be immigrated, being young, being independent and being open to experience facilitate brain drain. It is known that students tend to migrate at a young age,¹⁸ which is explained by lack of social support and the poor sense of belonging at a young age.¹⁸⁻²³ Starting working life and establishing ties with the working environment are considered as the leading factors that reduce tendency to emigrate.¹⁸ Nurses' personal characteristics such as desire and curiosity to travel abroad and to gain international nursing experience also increase their tendency for emigration.²⁷ It is important to have

language skills when someone immigrates to another country. Having language skills can increase self-confidence and enable the person to gain an international perspective.¹¹ Nurses working in China stated that they wanted to immigrate in order to improve their English and explore the world and other cultures.²⁶

Working conditions, economic prosperity and career opportunities abroad push students to emigrate. Sub-Saharan nursing students also state that the abundance of career opportunities in postgraduate nursing education in developed countries increases their tendency to emigrate.¹³ As is known, the leading factors that push nurses to emigrate are better salaries, life insurance, living conditions, and opportunities to develop skills and career in countries they intend to immigrate to.²⁷ According to Maslow's Motivation Theory, in physicians, as in nurse students, the leading push factor is financial reasons whereas education and professional development opportunities triggering the desire for self-improvement have been the leading source of motivation,³³ which is compatible with the push-pull theory. While nurses earn an average salary of £2500 in developed European countries, they earn around £800 in Türkiye,³⁴ which indicates that the main source of motivation is insufficient wages in the home country. On the other hand, Sub-Saharan nursing students state that the abundance of career opportunities in postgraduate nursing education in developed countries increases tendency to migrate.¹³ Although students were motivated by better working conditions and career opportunities abroad, their migration intentions were often tempered by fears related to language barriers, loneliness, and cultural differences. This suggests a complex interaction between motivation and perceived challenges, wherein strong push and pull factors coexist with psychological and logistical hesitations. The resulting internal conflict may delay or complicate the decision to emigrate, or lead to conditional migration plans.

In addition, in the present study, the students' relatives living abroad and those who are their role models affected their decisions and motivated them to migrate. The desire to emigrate becomes more evident when nurses create a social network to support them abroad. This support network reduces nurses' anxiety and makes migration convenient.²⁹ Since the primary motivation for migration is economic situation and living conditions, it is thought that nursing students may want to return to their country if their conditions are improved. In this regard, it is thought that when those who create nursing and health policies regulate nursing wages and salaries, the majority of migration can be prevented.

THEME 3. Challenges

In this study, the theme of challenges was explained with push factors that refer to the difficulties of the country. These findings are not unique to this study; similar challenges have been observed to increase the tendency to emigrate among nurses both nationally and internationally. International literature reports that dissatisfaction with working conditions, limited career advancement opportunities, and exposure to workplace violence are among the main reasons associated with nurse migration.^{35,36} Similarly, a study conducted in Türkiye also identified economic hardship and insufficient opportunities for professional development as key motivators for nurses considering migration.³⁷ As observed by the students, nurses in underdeveloped countries tend to migrate due to increased workload resulting from personnel shortage, deficiencies in workplace safety, perceived power difference between physicians and nurses, and lack of respect to nurses.²⁷ Nurses working in underdeveloped countries state that the lack of security in hospitals is responsible for their tendency to migrate.²⁸ Even though nurses have a bachelor's degree, they do not receive sufficient salaries. However, this alone is insufficient to explain their tendency to migrate. The lack of opportunities for students to demonstrate their critical thinking, problem solving and research skills in clinics may also increase their tendency to migrate.³⁸ Nursing students in Sub-Saharan countries also state that they are uncomfortable with the professional situation of nursing in the country.¹³ Economic difficulty is the main reason for employees and students to migrate; however, it is not the only factor pushing them to migrate. Cultural and religious reasons, and especially the reflection of gender inequality on nursing, trigger this desire.²⁹

In addition, the students in the present study stated that the language barrier and busy schedule at the school were the obstacles to their plans. Among the difficulties they would face in a foreign country according to their statements were loneliness and cultural and language differences. The students are right about the difficulties they expect to face in a foreign country. Immigrant nurses mostly experience language and communication problems, which leads to negative feelings such as stress, shame and disappointment. Moreover, immigrant nurses are discriminated against because of their accent and appearance. Their being exposed to such stressors in addition to negative factors such as being separated from their families, living alone, and working in subordinate positions in clinics puts them at risk for mental health.

Limitation

The first limitation of this study is that only final year nursing students with a decided intention to migrate were interviewed. This situation caused the opinions of senior nursing students, who had a desire to migrate but did not turn it into an intention, not to be obtained. Another limitation is that the interviewer was a faculty member at the participants' institution, which might have introduced social desirability bias in the responses, despite efforts to minimise this effect through neutral facilitation. The other limitation of the study is that the period in which this study was conducted was a period of economic difficulties in Türkiye. For this reason, there has been a widespread increase in the desire to migrate among final year nursing students. This may have affected nursing students' intention to migrate. The final limitation of this study is that it was conducted at a single nursing school. This may limit the transferability of the findings, as the perspectives of nursing students from other institutions or regions in Türkiye may differ.

The present study is the first study which reflects the brain drain-related perspectives of senior nursing students studying at a university in Türkiye and provides some information about their perspectives. The students participating in the present study stated that there was a tendency towards migration in society, that they were not satisfied with nursing in the country, that they felt hopeless for the future, that they expected to have better working conditions, economic prosperity and career opportunities abroad, that they were vulnerable to mobbing and violence in healthcare, and that they were overwhelmed by the heavy workload in the country, all of which pushed them to emigrate. On the other hand, they stated that the cultural and language differences they were likely to face abroad frightened them. All these indicate that brain drain-related perspectives of senior nursing students who want to emigrate from Türkiye are complicated. Sometimes socioeconomic and sociodemographic factors, sometimes complex psychosocial needs such as being respected and getting satisfaction push them to migrate. Of the factors that form the perspectives of the students who want to emigrate, some can be controlled, and some are personal. These findings suggest that nursing curricula in Türkiye may benefit from integrating content related to global health mobility, professional satisfaction, and emotional resilience. It is thought that students may be more inclined to stay in Türkiye if their workload is diminished if they are provided with economic support and if their career opportunities are increased. Future research could further

investigate the long-term migration decisions of nursing students, including follow-up after graduation. Comparative studies involving nursing students from different countries could also provide a broader understanding of global brain drain dynamics in the nursing profession.

Etik Komite Onayı: Araştırma süreci başlamadan önce, Dokuz Eylül Üniversitesi Girişimsel Olmayan Etik Kuruldan onay (karar numarası: 7852-GOA, protokol numarası: 2023/05-39) alınmıştır.

Bilgilendirilmiş Onam: Tüm katılımcılara araştırmanın amacı hakkında bilgi verilmiş ve görüşmelerin ses kaydına alınacağı belirtilmiştir. Daha sonra yazılı ve sözlü rızaları alınmıştır.

Hakem Değerlendirmesi: Dış bağımsız.

Yazar Katkıları: Çalışma tasarımı: MT, GZT Veri toplama: GZT Veri analizi: MT, GZT Çalışma denetimi: MT, GZT Makale yazımı: MT, GZT Önemli entelektüel içerik için eleştirel revizyonlar: MT, GZT

Çıkar Çatışması: Yazarlar, çıkar çatışması olmadığını beyan etmiştir.

Finansal Destek: Yazarlar, bu çalışma için finansal destek almadığını beyan etmiştir.

Ethics Committee Approval: Before the research process was started, ethical approval from the Dokuz Eylül University Non-Interventional Ethics Committee (decision number: 7852-GOA, protocol number: 2023/05-39) were obtained.

Informed Consent: All the participants were informed about the purpose of the research and they were told that the interviews would be audio-recorded. Then, their written and verbal consent was obtained.

Peer-review: Externally peer-reviewed.

Author Contributions: Study design: MT, GZT Data collection: GZT Data analysis: MT, GZT Study supervision: MT, GZT Manuscript writing: MT, GZT Critical revisions for important intellectual content: MT, GZT

Conflict of Interest: The authors have no conflicts of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

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