

The Willingness to Migrate Specialized Residents: Policy Brief

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Abstract

This study, conducted in 2022, aimed to explore the reasons behind and the willingness to migrate among physicians, as perceived by specialized residents within the medical communities of Kerman, Tehran, Shahid Beheshti, and Iran University of Medical Sciences. Notably, around 80% of clinical residents indicated that, with their current insights, they would opt for migration over pursuing a residency in their future careers. To mitigate physician migration, significant measures can be undertaken to enhance the conditions of specialized residency programs and to implement strategies that focus on retaining human resources, such as expanding educational and job opportunities.

Keywords: Migration; Physicians; Clinical Residents

Background

The migration trend is a significant concern for policymakers globally, both in origin and destination countries. Particularly, the migration of physicians and healthcare workers leads to a shortage of health personnel in low-income countries, despite the high costs incurred for their training and education (1, 2). The migration of elites inflicts numerous damages on the country; besides creating a void and a lack of specialized, skilled workforce and disrupting the meritocracy system in the country's management, it provides host countries with the opportunity to benefit from and reap the fruits of training these elites (3). The departure of skilled professionals such as physicians, nurses, and engineers during low supply and high demand can have destructive economic and social consequences. The departure of such health professionals has negatively impacted the capacity of medical and social services to meet basic health and social needs in the countries of origin. Consequently, the reduction in the number of physicians, besides its detrimental economic and social effects, leads to

reduced access to health services and a decline in the health status of individuals (4, 5).

Domestic evidence regarding the causes and willingness of Iranian physicians to migrate is limited. Specialized and subspecialty medical training is of key importance in the country's higher education system due to the special role of residents from various specialties in the educational-treatment system of universities (6, 7), as well as the significant role of these graduates as specialists and subspecialists in the community's health system. Now, considering the importance of specialized residents' position in the country's health system, who can play a significant role in expressing the reasons for the migration of Iranian physicians, and also considering the educational conditions of the specialized residency period which can influence this matter, this study aims to investigate the opinions of specialized medical residents regarding the causes and extent of physicians' willingness to migrate. Utilizing the results of this study, in addition to achieving the aforementioned objectives, will provide practical information to health system policymakers and

officials so that, through effective planning, they can identify the obstacles to the activity of medical science elites within the country and take steps to resolve them in order to prevent the increasing migration of physicians in the form of brain drain.

Key Findings and Suggestions

Willingness and Planning for Migration: The results of this study showed that 81.5% of the clinical specialized residents who participated in the research were willing to migrate. Also, the average score for willingness to migrate overall was 4.03 ± 1.53 , which is a significant figure. However, the results showed that residents' planning for migration is low. Only 28% of individuals had some degree of planning for migration, and the most significant number of residents (26.4%) had no planning. 58.9% of those willing to migrate had not planned for it.

Generally, migration studies focusing on clinical specialized residents and evidence related to them are scarce, and studies have usually examined the willingness to migrate and its reasons from the perspective of students and physicians. It seems that different conditions lead to the willingness to migrate among specialized residents, but planning for migration is low among physicians and residents due to the difficulty of the migration path, high migration costs, uncertainty of a positive outcome, as well as the busyness of the residency period, medical practice, and living expenses.

Examining the relationship between demographic characteristics, year of entry, and willingness and planning for migration showed that gender had a significant relationship with residents' willingness to migrate, such that 27.4% of men were very willing to migrate. In comparison, this figure was 15.3% for women. However, this relationship was not significant when planning to migrate. Younger individuals and newer entrants to this period, because less time has passed since the start of their residency, and they have more awareness about the migration path and indeed more courage, are more willing to migrate and have plans for it.

Examining the relationship between field of study and willingness and planning for migration revealed that this factor was related to willingness to migrate but not to planning for it. A notable point is that although it was assumed that fields with fewer shifts, better financial prospects in the future, and more comfortable work conditions would have less willingness to migrate, the results were different. Zero percent of the minor non-

surgical field group selected "not at all" and "very little" for willingness to migrate, while this figure was 13.9% for the surgical field group. These fields' job and educational conditions are no longer as ideal as before. Furthermore, results showed no significant relationship between marital status and university of study with willingness to migrate and planning for it. The conditions of the residency period and residents in these universities are similar, and marital status does not affect the willingness to migrate. The influence of marriage in reducing the willingness to migrate and attachment to the country has diminished, and the willingness of young people to migrate is greater.

The Impact of Residency Conditions on Willingness to Migrate and the Suitable Time from the Perspective of Clinical Residents

The conditions of clinical specialized residency influence their willingness to migrate. Results show that 56.7% of residents stated that if they had their current insight into the residency conditions before entering the residency period, they would have chosen migration over studying in the residency program as their main future path to a great or very great extent. A notable point is that investigations show that 50.4% of residents who had little willingness to migrate, if they had their current awareness of the residency conditions, their willingness towards the path of migration instead of residency would have been high. Therefore, the willingness to migrate was significantly related to the conditions of the specialized residency period (willingness to migrate instead of the residency path given current insight into its conditions). Also, most residents (44.5%) stated that the best time for migration is after the general medicine period, before residency. These results also attest to the fact that residency conditions likely influence migration, and also that there is not much hope regarding financial and work conditions as a specialist, and these residency conditions or work conditions could also indicate that migration as a specialist has more difficult conditions and a more extended acceptance period in the healthcare systems of destination countries. Also, the impact of residency conditions on willingness to migrate was only significantly related to the age of the participants, and individuals with a higher average age stated that if they had the current insight, their willingness to choose the path of migration over residency would have been low.

Factors Influencing the Willingness to Migrate Among Physicians and Clinical Specialized Residents

The most influential causes for the willingness to migrate among physicians and clinical specialized residents, in order, were: "Income inappropriate for medical professions compared to inflation, workload, and cost of living," "Better relative welfare in the destination country," "Existence of weak and unfair laws in the work and income system of the healthcare sector," "Lack of economic stability in society and better relative welfare in destination countries," "Unfavorable future outlook," and "Lack of facilities, income, and sufficient security during compulsory service periods." Also, the items "Encouragement from family and acquaintances to continue education or work abroad," "Religious constraints, laws, and lifestyle (including behaviors, values, attitudes, and beliefs) governing Iranian society," "Difficulty of entry, high competition, and inappropriate method of selection and admission for specialized fields and better conditions in destination countries," "Dissatisfaction with social status and public perception as a physician in society," and "Need for progress in the academic and professional field" were, in order, considered by residents as having the least impact on migration. Furthermore, 85.5% of residents selected economic and occupational factors as the most important causes of brain drain and the migration of specialists. After that were socio-cultural causes, educational-academic causes, and personal causes. However, overall socio-cultural causes had the highest average score across all items, with an average score of 37.42 and a very slight difference compared to economic and occupational causes, with an average of 36.52. After these two categories came educational-academic causes and personal causes. Reasons related to economic, financial, payment, occupational, and prospects of physicians held the most importance for residents as the leading causes of willingness to migrate. Also, given that the items with the highest scores were in the economic and occupational group, and from the residents' perspective, this category was more effective than the others, economic and occupational causes are the most influential and important causes of physician migration and the willingness of clinical residents to migrate. However, socio-cultural causes are slightly higher than economic and occupational ones, which indicates the importance of this issue in the subconscious of residents regarding physician migration and their willingness to do so.

Physicians are generally elite and capable individuals in any society and play an effective role in enhancing the community's public health level, which significantly

impacts human development indices. Also, medical education is costly. Therefore, retaining and maintaining a specialized medical workforce is particularly essential. According to various reviews and research, the statistics of physician migration, as one of the country's most important groups of elites and specialists, have been increasing in recent years, especially since the beginning of the COVID-19 pandemic. This is while, according to supply and demand forecasts, Iran will face a shortage of physicians in the coming years.

On the other hand, in recent years, the inclination towards taking the entry exam for specialized residency has decreased, and for the first time in the 2021-2022 academic year, failure to fill capacity occurred extensively in many specialized fields. These cases indicate that physicians are concerned about the future and sometimes think about migration. One of the compelling reasons for physicians' willingness to migrate is the conditions of the residency period in various dimensions and the conditions after graduation as a specialist. On the other hand, evidence providing a comprehensive overview of the willingness and reasons for physician migration from the perspective of clinical specialized residents, who have a special role in the educational-treatment system of universities, and also a significant role after graduation as specialists and subspecialists in the community's health system, is minimal. The willingness to migrate within the medical community has increased in recent years. The present study shows that this willingness is also very significant among clinical specialized residents studying at the best medical universities in the country. Furthermore, the current educational, payment, and work conditions during clinical specialized residency influence physicians' willingness to migrate. Many physicians and residents are dissatisfied with the job, economic, and financial conditions, and the support that should be provided to them, and these reasons themselves are the most important reasons for their willingness to migrate.

Conclusion

Physicians are among the most important specialized forces in society, and considering the cost spent on their education and the country's need for them due to the anticipated future shortage of physicians, efforts must be made through macro strategies to improve their conditions. Improving the educational and work conditions during residency, such as

standardizing their weekly working hours and number of shifts, appropriately distributing the treatment load according to the number of attendings present in hospitals, providing payment commensurate with their four years of work and activity, and ensuring they have suitable conditions and payment as specialists after graduation, coupled with improving the economic and occupational conditions of physicians in proportion to increasing costs and inflation at the macro level, enacting fair laws instead of strict occupational regulations, providing necessary support during their compulsory service period, and creating appropriate payment commensurate with the education and work level of specialists, can encourage the medical community to work in their own country, create hope regarding the residency period and specialist conditions, subsequently encourage entry into residency, and deter physician migration.

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References

1. Soltanizadeh A, Okhovati M, Shafian S, Ilaghi M, Behjati Y, Karamoozian A, et al. Residency training or migration: a multi-centric study exploring the willingness to migrate among medical residents in Iran. *BMC Med Educ.* 2025 Mar 10;25(1):362. doi: [10.1186/s12909-025-06900-w](https://doi.org/10.1186/s12909-025-06900-w). [PMID: [40065312](https://pubmed.ncbi.nlm.nih.gov/40065312/)] [PMCID: [PMC11895357](https://pubmed.ncbi.nlm.nih.gov/PMC11895357/)]
2. Bundred PE, Levitt C. Medical migration: who are the real losers? *Lancet.* 2000 Jul 15;356(9225):245-6. doi: [10.1016/S0140-6736\(00\)02492-2](https://doi.org/10.1016/S0140-6736(00)02492-2). [PMID: [10963214](https://pubmed.ncbi.nlm.nih.gov/10963214/)]
3. Vedadhir A, Eshraghi S. Attitude toward migrate abroad in Iranian medical community: a qualitative study. *Quarterly Journal of Research and Planning in Higher Education.* 2023;25(2):23-42.
4. Hadian M, Naderi M. Factors affecting the demand for general practitioners and forecasting it by 2001. *The Economic Research.* 2007; 7(3): 113-25. [In Persian]
5. Shahraki M, Ghaderi S. Projecting the shortages and surpluses of general practitioners in Iran. *Journal of Community Health Research.* 2021; 10(2):136-49. doi:[10.18502/jchr.v10i2.6588](https://doi.org/10.18502/jchr.v10i2.6588).
6. Ilaghi M, Shafian S, Soltanizadeh A, Karamoozian A, Okhovati M, Aflatoonian S. Reconstructing feedback in graduate medical education: development of the REFLECT scale to measure feedback delivery in medical residency training. *BMC Med Educ.* 2023 May 17;23(1):344. doi: [10.1186/s12909-023-04334-w](https://doi.org/10.1186/s12909-023-04334-w). [PMID: [37198635](https://pubmed.ncbi.nlm.nih.gov/37198635/)] [PMCID: [PMC10193812](https://pubmed.ncbi.nlm.nih.gov/PMC10193812/)]
7. Shafian S, Ahmadi S, Rezaei-Gazki P, Ershad Sarabi R. Explaining the residents' perception of desirable clinical education: A qualitative content analysis. *Strides Dev Med Educ.* 2021;18(1):e91790. doi:[10.22062/sdme.2021.91790](https://doi.org/10.22062/sdme.2021.91790).