

Why Do Pakistani Doctors Migrate? Unraveling the Causes of Brain Drain in the Healthcare Sector

Syed Muhammad Fauzan Ali¹, Abdul Kabeer Kazi¹, Hafsa Alam¹, Nargis Khan, Fakhrah Khursheed¹, Sanobar Anila¹, Imran Robert¹, Zulfiqar Ali¹, Irshad Ahmed¹, Gouhar Rehman Peerzada¹ and Ambreen¹

¹Assistant Dean, Faculty Health Management Sciences, Baqai Medical University

ABSTRACT

This study examines the factors contributing to job dissatisfaction and the subsequent migration intentions of healthcare professionals in Pakistan. Using empirical analysis, the research identifies career development barriers, financial constraints, and poor working environments as primary determinants of job dissatisfaction. Findings indicate that career stagnation and unfavorable workplace conditions significantly increase dissatisfaction, leading professionals to seek better opportunities abroad. Contrary to expectations, financial constraints alone do not directly impact job dissatisfaction, suggesting that non-monetary factors play a more significant role in shaping migration decisions. The study aligns with Becker's Human Capital Theory, emphasizing that professionals weigh career growth and work-life balance when making migration choices. The increasing trend of healthcare professionals leaving Pakistan not only drains valuable human capital but also weakens the healthcare system, creating long-term challenges for service delivery. Policy recommendations include structured career progression, improved workplace conditions, and financial incentives to enhance job satisfaction and retain skilled professionals. Additionally, fostering professional development through training programs and research opportunities can mitigate the desire to migrate. Future research should focus on evaluating the effectiveness of retention policies and comparing Pakistan's healthcare workforce trends with similar developing economies to develop targeted, evidence-based strategies for addressing brain drain.

Key-Words: Brain Drain, Job Dissatisfaction, Career Development, Healthcare Professionals,

Corresponding author: saiyedfauzan@gmail.com

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INTRODUCTION

The medical profession has long been considered one of the most prestigious and noble callings, embodying a long-standing commitment to easing human suffering and promoting health (Atif et al., 2022). Physicians undergo a kind of training that is almost unique in its insistence on rigor and comprehensiveness, one that almost always spans over a decade and more. It is a period in which a physician-to-be acquires the knowledge and skills that books and clinical knowledge tell us are necessary and sufficient to effectively and efficiently diagnose and treat the myriad of ailments that human beings can and do suffer through (Farid et al., 2021). And yet at the end of this very long and almost endless path of training, physicians encounter an ironic twist to the story they have lived and told themselves. Expected at the end is not only a modestly stable place on the financial side of life but also a trove of professional respect, a well-lit highway leading toward the next career milestone, and a set of good work-life balance signs that almost guarantee a physician a good chance of serving his or her community in a way that is close to

able and to desirable (Ricotta et al., 2022; World Health Organization, 2024).

The migration of healthcare professionals, which is often labeled as a 'brain drain,' has serious implications for the healthcare system of Pakistan. The leaving of physicians saps the health system of its most experienced and knowledgeable leadership (Tariq et al., 2023). It leads not only to retention but also to recruitment challenges that sap morale, patience, and institutional credibility among those who remain (Shahbaz et al., 2021). It also places the health professional workload on an already over-burdened workforce, leading to dangerous work conditions for graduates in the country and Pakistan's residents being berated in the world for achieving poor health targets.

The implications of this trend are extensive. The loss of skilled doctors weakens the ability of medical authorities to give good quality education and mentorship to almost 2,000 medical students in Pakistan each year (Raza et al., 2023). But even here we have a vicious cycle because when our skilled graduates leave, the investment the state has made in those individuals pays very poor dividends (Shahbaz

et al., 2021). So, we have graduates in the country who are of poor quality, poor access to good research mentors, and they sending very underwhelming medical developments back to the communities of 240 million people who live here (Tariq et al., 2023; Zaheer et al., 2023; Raza et al., 2023; Shahbaz et al., 2021). On top of all of this, communities in rural areas of Pakistan face a serious shortage of healthcare personnel. Leaving so many poor, sick, and dying people with basically no access to doctors, who in turn have no access to advanced medical education, poor conditions under which to practice (when they can even get jobs), and no guarantee that if they make it to the other side of med school, they won't simply bust out of the plans next to the qualified medics in those same poor quality institutions (Meo & Sultan, 2023).

The intention to migrate to Pakistan is influenced not just by a series of political and socio-economic factors but also by a lack of career development opportunities, financial constraints, and working conditions that are just unsatisfactory. This study takes a clear aim at dissecting those conditions and provides a very real look at the push factors from the healthcare

migration pathway. It then stitches together a narrative using job dissatisfaction as a convenient thread to explore how all these factors funnel doctors out of the country. And if that isn't the most splendidly under-researched area imaginable, I don't know what is. This study has serious policy implications.

Research Objectives

1. To analyze the impact of financial incentives, career development opportunities, and work environment on doctors' intention to migrate.
2. To examine the mediating role of job dissatisfaction between workplace challenges and migration decisions.
3. To propose policy interventions for improving doctor retention in Pakistan.

Research Questions:

What are the primary push factors driving Pakistani doctors to migrate?

How do financial constraints, career stagnation, and poor working conditions contribute to medical brain drain?

Does job dissatisfaction mediate the relationship between workplace factors and doctors' intention to migrate?

Literature Review

The phenomenon where talented professionals, especially in the field of healthcare, depart from their home countries in search of better

prospects abroad is known as brain drain. It is more a silent exodus of a country's most brilliant citizens than a stir caused by the open immigration of unskilled workers.

"Why is this happening?" you might ask. And the causes are as complex as the issue itself. Stagnant career prospects, low salaries, and overwhelming work conditions make staying in one's home country feel nonviable for many professionals, especially doctors (Kamarulzaman et al., 2022). Political instability and a lack of modern infrastructure mean that the healthcare systems of many nations are struggling (Böttger et al., 2023). When doctors and medical staff feel that their skills are underutilized or undervalued, moving to countries with better resources and more rewarding opportunities becomes quite tempting (Ebeye & Lee, 2023).

Besides all that, social factors like a better quality of life, safer living environments, and access to superior education for their children make migration anything but an unattractive option for many professionals considering taking the plunge (Tariq et al., 2023). Although the situation is bad and worsening in many countries, healthcare brain drain has a direct effect.

It drains the country of its top talent and weakens its healthcare system, thereby serving" as a not-so-inviting path for the country's underserved populations to take in search of healthcare (Raza et al., 2023).

Becker's Human Capital Theory provides a useful lens through which to view why brain drain happens. Professionals and workers certainly do leave countries for many reasons. Among those, the push of unfavorable local conditions and the pull of favorable external conditions are often key drivers (Baktymbet et al., 2021). Seen in this light, Becker's theory suggests that an individual's costs and benefits decisions are at play. Yes, intellectually valuing education and skill development to the level of "human capital" is one thing, but it's not too much to say that the models of decision-making tied to human capital at least help explain why professionals on a mass scale pack up and leave (Tonini, 2021).

Theoretical Development of Hypotheses

Long been identified as a significant factor contributing to job dissatisfaction, financial constraints are especially acute in professions that require extensive training and expertise, such as healthcare. When compensation does not align with the expectations of employees—

even when those employees work in high-stress, demanding roles—dissatisfaction tends to arise. Stress and workload have a direct positive effect on turnover intention, mediated by job satisfaction. This means that when you combine a heavy workload with low financial incentives, you get dissatisfaction, and many professionals start looking for other opportunities (Bimal et al., 2016).

Additionally, the systematic review conducted by Sunn et al. (2020) emphasizes that a lack of professional standing and poor job recognition are common complaints across many sectors in Asia. For those working in low-paying jobs or lacking in the professional standing typically associated with secure employment, dissatisfaction is bound to be quite severe: these are our neglected sectors. Environmentally, they are poor and seem as if they are stepping stones to something else. And when you couple the poor standing and recognition with financial insecurity, you don't need a specific program to instruct these individuals on how to feel undervalued.

In addition, Bester and Engelbrecht (2009) identify workload and scarcity of resources as principal causes of healthcare sector discontent. When resources, especially financial ones, are

scarce, and when the workload is supervenient, it is a safe bet that job dissatisfaction will be at an all-time high. In an obvious way, the relationship between financial constraints and job dissatisfaction among healthcare personnel is established. Job dissatisfaction possibly correlates directly with the migration decision among personnel.

H1: Financial constraints positively influence job dissatisfaction.

There are immense adverse impacts exerted by career development barriers on job dissatisfaction. This is especially the case in health care, where skill development and career progression are requisite for employee retention. İnandı, Yaman, and Ataş (2022) showed that career barriers act as significant predictors of both stress and job satisfaction among teachers. Some of these barriers are a lack of support from teachers' unions and administrative obstacles. These same types of knowledge barriers and pathway obstacles are also present in health care. And, like teachers, healthcare professionals are paying the price of job dissatisfaction. Job dissatisfaction and a lack of retention in health care are symptoms of career development barriers. Nancarrow (2007) observed that providing avenues for skill development and career advancement leads to

higher job satisfaction. Therefore, career development barriers can directly influence job dissatisfaction, supporting the hypothesis:

H2: Career development barriers positively influence job dissatisfaction.

A poor work condition leads to job dissatisfaction, especially in the healthcare sector. Kamarulzaman et al. (2022) predicted that adverse work conditions, such as inadequate resources and support, might compel healthcare professionals to seek better opportunities in foreign countries. This was supported by Khaliq et al. (2025), who stated that low salaries and nearly unfavorable working conditions might impel doctors to migrate. İnandı et al. (2022) maintained that career barriers stemming from poor organizational environments compromise job satisfaction as well. Yarbrough et al. (2017) emphasized that negative work conditions also impede career development, which in itself is a major driver of satisfaction or dissatisfaction regarding jobs. Therefore, poor work conditions directly undermine job satisfaction, pushing professionals to leave. Hence, the following hypothesis is proposed:

H3: Poor work environment positively influences job dissatisfaction.

The intentions of doctors to leave Pakistan are fundamentally tied to dissatisfaction with their jobs. Khaliq et al. (2025) assert that the conditions under which they work are abysmal, their earnings meager, and the chances for advancement practically nonexistent. A corollary of these arguments is that the domestic healthcare system is in such disarray that it is driving more and more of its trained professionals to other countries.

Meo and Sultan (2023), for instance, take the current brain drain as an indication of just how long our problems have persisted and how serious they have become. The BPS (Brain Drain Problematicity Scale) yielded several significant causal factors: 1. Unsatisfactory job payments; 2. Disappointing job conditions; 3. Close to zero job satisfaction; 4. Career stagnation; 5. Poor working environment; 6. Poor local healthcare facilities; 7. Limited job opportunities. Therefore, job dissatisfaction serves as a key motivator for doctors' migration. Hence, we propose the following hypothesis:

H4: Job dissatisfaction has a significant impact on intention to migrate.

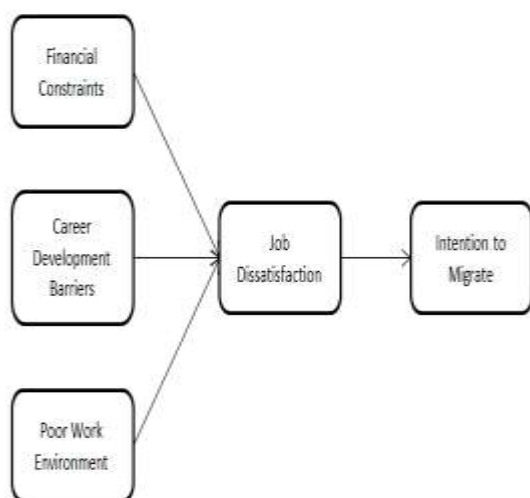


Figure 1 Conceptual Framework

RESEARCH METHODOLOGY

A quantitative research design was used in the study, with a cross-sectional survey approach employed to gather the required data. This aligns with the positivist research philosophy, wherein knowledge is gained mainly through the use of controlled, observational, or experimental methods. A deductive strategy of inquiry was used to take predefined hypotheses, related to the role those financial constraints, career development barriers, and poor working conditions play in shaping the healthcare professional's migration intentions. A survey was carried out as the main method for collecting data. The survey was specifically directed to 200 health professionals, which included doctors, nurses, and medical students,

in three major medical cities: Karachi, Lahore, and Islamabad. These cities were chosen because they have a high density of medical institutions, which allowed for a good mix of public and private sector health professionals to be sampled. The survey had two main parts: the first part asked some demographic questions; the second part included several distinct items that were designed to tap into the factors that influence medical professionals' intentions to migrate. These latter items were adapted from previous studies (Khaliq et al., 2025; Meo & Sultan, 2023). Healthcare professionals in Pakistan are part of a migration system that is benefiting both sending and receiving countries. Many doctors and nurses choose to emigrate, primarily to developed nations, which then reap the benefits of their education and training. This has led to the current situation, where in Pakistan, we have a worker diaspora that is remitting back \$3 billion a year to the national treasury. Currently, we have 100,000 Pakistani doctors serving abroad, with 65,000 of them practicing in the U.S.

Table 1 presents the demographic, educational, and professional profiles of the respondents (n=250), providing insights into key characteristics influencing their career decisions. A majority (70%) are male, with most

holding advanced medical qualifications (48% MRCP/FRCS/MD). Notably, 80% are employed in Pakistan, yet 56% rely on secondary income sources, highlighting financial constraints. Table 2 displays the outer loadings of observed indicators for each construct, confirming their reliability and validity. PLS algorithms were calculated to assess the measurement model, ensuring each item significantly represented its respective construct. Indicators with low loadings (JD1, CBD1, FC1, FC4, FC2) were removed to strengthen the model. The results indicate that retained indicators exhibit strong correlations with their constructs, confirming the appropriateness of the measurement model. High outer loadings suggest that the selected indicators effectively capture the essence of their respective latent variables, reinforcing the study's structural validity.

Table 3 presents the convergent reliability assessment of the constructs using Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). All constructs exceed the recommended thresholds (Cronbach's Alpha > 0.7, CR > 0.7, AVE > 0.5), confirming internal consistency and convergent validity. These results validate the measurement model's reliability, ensuring that the selected

indicators effectively capture their respective latent constructs. The high AVE values indicate that a substantial portion of the variance in each construct is explained by its indicators, strengthening the study's credibility and the robustness of its theoretical framework.

Table 4 assesses discriminant validity using the Heterotrait-Monotrait Ratio (HTMT). All HTMT values are below the critical threshold of 0.90, confirming that each construct is distinct from others. This ensures that the model's variables measure unique aspects without excessive correlation, reinforcing the study's validity and robustness in structural equation modeling.

Table 5 presents the path coefficients assessing the relationships between independent variables and job dissatisfaction, as well as the impact of job dissatisfaction on the intention to migrate. The findings reveal that career development barriers ($\beta = 0.425$, $p = 0.009$) and a poor work environment ($\beta = 0.473$, $p = 0.005$) significantly contribute to job dissatisfaction, supporting H2 and H3. This suggests that limited career growth opportunities and unfavorable working conditions heighten dissatisfaction among professionals.

However, financial constraints ($\beta = 0.013$, $p = 0.935$) do not significantly impact job dissatisfaction, leading to the rejection of H1. This could indicate that while financial concerns exist, they may not be the primary driver of dissatisfaction compared to career progression and workplace conditions. Job dissatisfaction strongly predicts the intention to migrate ($\beta = 0.566$, $p = 0.000$), confirming H4. This highlights that dissatisfaction is a key motivator for migration, emphasizing the need for better workplace policies to retain skilled professionals.

DISCUSSION

The results of this study show that lack of opportunities for career development, poor working conditions, and inadequate professional growth are major contributors to job dissatisfaction among healthcare professionals in Pakistan. Despite limited research focusing on this specific problem, a small but growing body of literature sheds light on it. The findings align closely with what exists in the literature and what those few studies have found (Kamarulzaman et al., 2022; Khaliq et al., 2025).

Inflation and the economy cast a pall over life in Pakistan at the moment, but those problems alone are not driving doctors and other healthcare professionals to migrate to other countries. Service and personal growth may be just as important—or even more important—to qualified Pakistani healthcare employees who are contemplating moving to Canada or the United States. Our interpretation of the study aligns with Yarbrough et al. in 2017 which states that access to career development enhances job satisfaction. When job satisfaction is coupled with an opportunity to earn a competitive salary, the likelihood that a healthcare professional will migrate from Pakistan to the United States decreases. These are not insignificant factors in making Pakistan a more attractive place to live and work for qualified healthcare professionals.

Inflation has been rising, but it has been rising with the last several months still within our memories. So, with inflation on the rise, it has become quite common to depend on other, secondary, sources of income. But let's talk about something that does concern us somewhat: our jobs and our income. First and foremost, professionals, by any measure, should focus on improving their skill set. Not only should we be continually working to become

more specialized—certainly with our profession's help—internally and externally, but we should also be positioning ourselves internationally, in terms of not just us here physically, but in terms of the international skill marketplace. Why? Because our job dissatisfaction is directly related to two things. One, the lack of training, and two, the lack of upward mobility or promotional opportunities.

Becker's Human Capital Theory (Gerhart & Feng, 2021) maintains that individuals attain the highest returns when they invest and align their education and skills with environments that appreciate and reward them. This contention underpins the theory of why migratory behavior is increasing among healthcare professionals. They are opting for migration more and more because their current career trajectories are marked by stagnation and poor work conditions. Kamarulzaman et al. (2022) go further and pinpoint inadequate working environments and limited opportunities for professional growth as reasons the upwardly mobile professionals in their study are leaving.

CONCLUSION AND FUTURE DIRECTIONS

This study's findings pinpoint a pivotal problem in Pakistan's health sector—a rise in job dissatisfaction among health professionals, a discontentment that is now spilling into the public realm. Why are health workers unhappy? The study identifies three core reasons: career stagnation, poor working conditions, and low pay. The health professions in Pakistan suffer a huge brain drain, with scale and scope of emigration that hold few parallels in other sectors. The researchers posit that this emigration is not just a problem for the people who leave. It's a problem for the whole country because it takes away not just the talent of the people who emigrate but also their families, who are left with fewer talented people. After all, the emigrants' families are very much part of the 14 million people who are in the health professions in Pakistan.

Policymakers must implement strategies that boost job satisfaction and career growth in the healthcare sector. Structured promotion pathways, better pay, and investment in the professional development of the workforce promise to reduce the draw of emigration. Conditions of work and the quality of healthcare provision also must be improved. This is a resource issue; healthcare systems cannot expect to retain skilled people if they are

overworked or under-resourced. Public-private partnerships offer a way to tackle this issue and can also go further by funding research opportunities, postgraduate training, and leadership positions that make stay-home careers more attractive. Telemedicine and remote healthcare services could also offer new and exciting career opportunities to skilled professionals that might otherwise reduce their migration. Lastly, some of the most important and helpful incentives have to do with the retention of social security benefits—healthcare coverage, support for housing, and education opportunities for family members—that make stay-home careers more attractive.

Research in the future should examine how effective interventions through policy can be in halting the tendency of physicians and nurses to leave the country. It should also look at more promising forms of study that have been used in the past. For instance, using longitudinal formats and diversifying the studies to include comparisons with other developing nations in similar straits could allow for the identification of best practices. Using these practices in some form of evidence-based policy within a unique context could make for a much-needed retention strategy.

Table 1 Respondent Profile

Category	Sub-Category	Frequency (n=250)	Percentage (%)
Demographic Information			
Age	25-30	50	20%
	31-40	80	32%
	41-50	70	28%
	51+	50	20%
Gender	Male	175	70%
	Female	75	30%
Marital Status	Single	90	36%
	Married	140	56%
	Divorced/Widowed	20	8%
Number of Dependents	0	60	24%
	01-Feb	100	40%
	03-Apr	70	28%
	5+	20	8%
Educational Background			
Highest Qualification	MBBS	50	20%
	FCPS/MCPS	80	32%
	MRCP/FRCs/MD	120	48%
Professional Experience			
Employment Status	Employed in Pakistan	200	80%
	Unemployed	50	20%
Years of Experience	Less than 5	40	16%
	05-Oct	100	40%
	Nov-15	60	24%
	16-20	30	12%
	20+	20	8%
Monthly Income Range	Below PKR 100,000	30	12%
	100,000-200,000	50	20%
	200,000-300,000	120	48%
	Above 300,000	50	20%
Primary Income Source	Consultants	120	48%
	Education	40	16%
	Research	30	12%
	Administration	20	8%
Secondary Income Source	Yes	140	56%
	No	110	44%

Table 2: Outer Loadings

Indicator	Career Development Barriers	Financial Constraints	Intention to Migrate	Job Dissatisfaction	Poor Work Environment
CDB2	0.837				
CDB3	0.888				
CDB4	0.914				
CDB5	0.866				
FC3		0.925			
FC5		0.907			
IM1			0.895		
IM2			0.901		
IM3			0.896		
IM4			0.915		
IM5			0.927		
JD2				0.827	
JD3				0.883	
JD4				0.860	
JD5				0.849	
PWE1					0.883
PWE2					0.818
PWE3					0.814
PWE4					0.837
PWE5					0.807

Table 3 Convergent Reliability

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Career Development Barriers	0.899	0.899	0.769
Financial Constraints	0.809	0.815	0.839
Intention to Migrate	0.946	0.947	0.822
Job Dissatisfaction	0.878	0.882	0.731
Poor Work Environment	0.890	0.899	0.693

Table 4: Discriminant Validity - Heterotrait-Monotrait Ratio (HTMT)

Construct	Career Development Barriers	Financial Constraints	Intention to Migrate	Job Dissatisfaction	Poor Work Environment
Career Development Barriers					
Financial Constraints	0.828				
Intention to Migrate	0.636	0.547			
Job Dissatisfaction	0.820	0.746	0.616		
Poor Work Environment	0.775	0.791	0.528	0.840	

Table 5: Path Coefficients

Hypotheses	Original Mean	T Value	P Value	Remarks
Career Development Barriers -> Job Dissatisfaction	0.425	2.628	0.009	Accepted
Financial Constraints -> Job Dissatisfaction	0.013	0.082	0.935	Rejected
Poor Work Environment -> Job Dissatisfaction	0.473	2.803	0.005	Accepted
Job Dissatisfaction -> Intention to Migrate	0.566	5.071	0.000	Accepted

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