

## REVIEW PAPER

# SHAPING DE FACTO BRAIN DRAIN A QUALITATIVE ENQUIRY OF PUSH AND PULL FACTORS OF EMIGRATION AMONG ALGERIAN PHYSICIANS WORKING ABROAD

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## ABSTRACT

The aim of this research was to understand the different push and pull factors of physicians' emigration from Algeria and how they perceived and experienced these factors. A qualitative analysis was conducted with actual emigrants to different countries. The findings were analyzed using a content analysis. A total of eight generalists medical-surgical and medical agreed to take part in this study. The participants were emigrants to the USA, the UK, France, Germany, Canada and the Middle East. Almost all participants agreed that the main drivers of emigration are: working conditions, personal motives and socio-economic factors for both the source and receiving country. Most participants perceive push factors as a source of fear and consider them as imprisonment that poses increased pressure, while pull factors are perceived as an alternative to emancipating from constraint in home country. The push and pull framework is significant in understanding different factors of emigration. Policy-makers need to make efforts to bridge the lacuna between donor and host countries and to reverse these losses into brain gain through in-depth reforms.

**Keywords:** Physicians, emigration, push factors, pull factors

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## 1. Introduction

Maintaining health services hinges on the availability of health workers (HWs). HWs were depicted as the heart of any health sector that determines the nature and quality of services provided (Gill, 2011). The COVID-19 pandemic has also revealed the crucial role of HWs for an effective pandemic response (Li et al., 2020). Additionally, it has forced governments to reassess their health workforce requirements (Joshi et al., 2023). Accordingly, any shortage of this human capital jeopardizes the healthcare system to decline drastically. It is widely recognized in academic literature that medical brain drain has deleterious damage on health services in poorer countries (Eastwood et al., 2005; Stilwell et al., 2004). The reported evidence highlighted that the deficiency of HWs is inexorably linked to emigration abroad (Haakenstad et al., 2022).

Physicians, as a part of HWs, register a high rate of emigration, primarily from Eastern European regions, (Ireland 43.48%, Estonia 32.99%, Malta 28.28%), sub-Saharan African countries, (Liberia 54.81%, Ghana 33.74%, Congo 33.59%) and small island nations, (Grenada 99.93%, Dominica 98.85%, St Lucia 96.95%) (Adovor et al., 2021). Although there is a complex global hierarchy of physician's recruitment, the predominantly recipient regions are the G8 countries to offset the shortfall in their HWs stock (Labonte, 2004). This recruitment process is predominant in the underserved, rural, and remote areas (Joshi et al., 2023). The outcome is a global horrendous defect and disparities in the distribution of physicians. This is evident in Boniol, et al.'s study (2022), which estimates that the global gap was 15 million in 2020 and expected to be 10 million in 2030. It is for this reason the World Health Organization (WHO) (2010) propounded a code of practice to manage this perverse subsidy. Surprisingly, the hemorrhaging of physicians is palpable in countries that train more doctors (Adovor et al., 2021), and occur simultaneously in regions with acute shortages (Portes & Ross, 1976).

In this regard, a burgeoning cohort of literature from distinct countries highlighted that physicians' emigration (PhE) from low-middle income countries (LMICs) to high-income countries (HICs) is a reaction to an extensive variety of accumulative push and pull factors. Studies revealed that this phenomenon is a reaction to an extensive variety of economic factors. For example, unemployment rate, low income, job insecurity,

limited funding for research institutes, excessive taxation, inadequate financing for medical training, poor economic conditions and poor remuneration are the major compelling forces exacerbating the flow of doctors abroad (Apostu & al, 2022; Astor et al., 2005; Awases et al., 2004; Bhargava et al., 2011; Humphries et al., 2021; Ifanti et al., 2014). The same studies illustrated that, under these circumstances, physicians seek financial comfort like recruitment, better remuneration, and higher income that fit with their status in other countries.

Moreover, the inducement occurs when some countries pull physicians by offering attractive public policy measures such as registration rules, licensing facilities, and long visa duration, which increases the likelihood of physicians moving abroad (Nair et al., 2021; Schumann et al., 2019). These policies have led to the attrition of physicians from home countries.

In fact, physicians' mobility is evident, especially in areas where political problems persist. Issues such as political insecurity and instability in home countries push physicians to emigrate in search of a more secure life (Al-Khalisi, 2013; Apostu & al, 2022; Clemens & Pettersson, 2008; Doocy et al., 2010).

Indeed, it is not only pecuniary nor political factors that spur physicians' outflow; but also linguistic, geographic and historic ties between donor and host countries, where developed regions provide awareness of opportunities in their countries for physicians from its erstwhile colonies (Adovor et al., 2021; Belot & Hatton, 2008; Vaughan & Carey, 2002; Vörk et al., 2004).

Notably, previous studies revealed that structural and organizational conditions are decisive factors that have great impact on doctor's exodus which is very alarming. Strenuous working conditions, bureaucracy, daily grind, malfunctioning of educational and health system, the lack using knowledge, inadequate diagnostic facilities and equipment and poor management in health system are the main conditions that prompt physicians to settle in another country for work (Awases et al., 2004; Botezat & Ramos, 2020; Clarke et al., 2017; Séchet & Vasilcu, 2015; Vaughan & Carey, 2002). Okey (2016) and Schneider (2015) found that corruption can generate poorer working and living conditions which rise the expatriation rates of physicians. However, developed countries drag physicians by offering an attractive retirement

system, advanced medical technology along with a better structure of medical education and the right management of the health system by high competencies (Astor et al., 2005; Botezat & Ramos, 2020). These reasons are deemed to be essential in pulling physicians towards developed countries

Hurdles anchored in society prevent physicians from continuing their professional practice in their country. Due to discrimination, rising social insecurity, high rate of crime, violence and social pressures physicians make decision to emigrate to countries where they can ensure a better life for their children, improved prospects for family and enhance the standards of living and success (Asadi et al., 2018; Astor et al., 2005; Oberoi & Lin, 2006; Onah et al., 2022; Rasool et al., 2012; Séchet & Vasilcu, 2015; Vaughan & Carey, 2002).

Not only do the social factors influence physicians to leave their home country; but also this phenomenon is related to the established culture of emigration, the sense of adventure and curiosity (Akl et al., 2007; Humphries et al., 2021; Vaughan & Carey, 2002). These emigrants also took profit when they sought countries with aging populations in need of health care (Botezat & Ramos, 2020).

Other factors appear to have an impact on the emigration of physicians. Competitive advantages in job market, career progression, personal concerns for better opportunities, further training, the desire to gain international occupational experience and the appeal of international recognition are considered to be primary in fueling physicians to forsake their countries (Akl et al., 2007; Ali et al., 2012; Asadi et al., 2018; Awases et al., 2004; Clarke et al., 2017; Vaughan & Carey, 2002).

Botezat and Ramos (2020) addressed this topic quite comprehensively and argued that factors of emigration are asymmetrical and different across regions. For instance, African physicians emigrate to countries that offer higher wages and have a low density of doctors. Whereas physicians from Central and Eastern Europe seek countries with a higher demand for healthcare services and better medical technology, while Asian physicians move towards countries with better school systems. Consistent with Botezat and Ramos assertion, Adovor, et al. (2021) asserted in an empirical investigation that PhE is strongly affected by the economic traits of origin and host countries, linguacultural relationship between countries, combined with policies that attract skilled

professionals, registration rules, licensing facilities and long visa duration, as well as points-based system, tax advantages for migrants.

Toyin-Thomas et al. (2023) in a systematic review, on the other hand, asserted that there are some resemblances in the motives of emigration. At the macro-level, remuneration and security problems were the primary drivers for migration. Whereas, career prospects, good working environment, and job satisfaction were the vital meso-level determinants of migration. This debate reflects that there is no unanimous scientific agreement on whether the factors are the same across countries around the world.

It is worth noting that these scholars seem to agree that the push and pull model theory, developed by Everett S. Lee (1966), contributed to understanding PhE. While push factors are constellations of endogenous reasons anchored in home countries, the pull factors are exogenous incentives from destination countries. These two rubrics are selected due to their general credibility and aggregate effect on the orientations and behaviors of individuals (Portes & Ross, 1976). This model is also labeled as a supply and demand model, which posits that migration as an instrumentally rational process is interpreted by the gap in income and other opportunities between origin and destination countries (de Haas, 2021). Push and pull factors are not discrete in reality but inextricably united.

In the Algerian context, PhE represents a prominent crisis that puts the health system in vulnerability. In 2007, Algeria had 1.2 physicians per 1,000 population (Boslaugh, 2013). With the rapid growth of the population, In 2018, it had 1.7 physicians' density per 1,000 individuals (The World Bank, 2018). The medical brain drain contributes in this relative undersupply of physicians in Algeria (Boslaugh, 2013). The average annual influx of Algerian physicians to France from 2011 to 2019 was estimated at 177 physicians per year (Musette & Musette, 2022). More recently, the emigration proportion of physicians was 23.35%, taking into account the place of birth approach in monitoring emigration. However, if the place of education/training approach was taken into account the emigration rate decreases to 8.63% (Zehnat, 2021). Although the second approach is important from the standpoint of policy, it sparks some methodological impediments and measurement issues (OECD, 2019).

Although some studies in Algeria shared substantial observations in terms of PhE extent and the profile of emigrants (Musette & Musette, 2022; Musette, 2017; Zehnati, 2021), more analysis is vital, particularly regarding the main drivers of emigrating, as there are no qualitative nor quantitative studies on emigration factors. It has been argued that the deficiency of statistical data was the main constraint to addressing this topic (Musette & Musette, 2023) which is problematic. Accordingly, analysis on PhE remained simply theoretical. Besides, if we agree that migration factors are complex and distinct among individuals, and different groups and diverse geographically (Gunn et al., 2021; Wesselbaum & Aburn, 2019), this assumption provides us the opportunity to investigate this phenomenon in the Algerian context.

The current study aims to understand the perceptions and experiences of Algerian physicians regarding push and pull factors which induced them to emigrate abroad which is an often-overlooked area of study. It is crucially important for policy-makers to have more evidence and a more full-fledged picture of factors that influence physicians to emigrate overseas to embrace several mechanisms that alleviate a medical brain drain phenomenon and overcome the challenges it poses on health system (Ferreira et al., 2020). Additionally, the current circumstances require Algerian policy to step out of its stagnation in enacting laws that intensify the preexisting migration tendencies, and set an optimum framework of sustainable and strategic treatment of such influx.

## **2. Method**

### **2.1 Study design**

A qualitative study was carried out to investigate how Algerian physicians perceive and experience factors, which mostly affected them to emigrate and practice their profession abroad. The research utilized an electronic interview with the participants to gather data. This kind of interview is widely used in different disciplines, regarding its advantages in its reliance on direct, usually immediate, interaction between the researcher and participant (Salmons, 2012). Interviews in qualitative research are generally considered semi-structured or unstructured (Holloway & Wheeler, 2010, p. 88). This study used in-depth, unstructured interviews since it is a phenomenological study (Gray, 2004, p. 22), which sought to understand how emigrant

physicians perceive and experience factors of migration in another country. The interview with emigrants was guided by the following two main questions: as a physician, how do you perceive and experience factors that pushed you to emigrate from Algeria? how do you perceive and experience factors that pulled you to become an immigrant in the host country?. Participants were interviewed via google meet and zoom, each interview lasted between 30 and 45 minutes. The language used in the interview was a mixture of Arabic and French. Some participants chose to use a camera while others preferred audio interview only. The use of the camera was helpful in capturing facial expressions and body language.

### **2.2 Sample and sampling**

The main focus of this study was on physicians currently working in the health sector of the host countries and gained their first qualification from Algerian medical institutions and have experience of working within these institutions before emigration. Since physicians are hard to find as samples, non-probability sampling method was used to interview participants. Snow balling sample was employed to recruit participants from host countries where each interviewee gave the researcher the name of at least one more potential interviewee (Kirchherr & Charles, 2018). This kind of sample functions as a virtual snowball sample (Baltar & Brunet, 2012).

Eight physicians agreed to take part in the interview as shown in Table 1. The participants were informed that the data they provide is used purely for scientific purposes to enhance our understanding of the phenomenon of emigration. The anonymity of the respondents was ensured.

### **2.3 Data analysis**

To analyze data, a content analysis was used. The study adhered to Bengtsson (2016): the five analytical procedures, (1) the decontextualisation, (2) the recontextualisation, (3) the categorisation, and (4) the compilation. By following these stages, the researcher familiarized himself with the data through the process of reading and re-reading to extract meaning units inductively. After identifying the meaning units, aspects of the content analysis were checked if they were covered concerning the aim of our study. Only information relevant to the study objectives was retained. Themes and sub-themes rooted in the data were identified. At the



final stage, how the findings correspond to the previous studies was checked.

**Table 1.**  
*Participants' socio-demographic data*

variable	Demographics	Total
gender	Male	06
	Female	02
age	30-35	02
	36-40	02
	41-45	02
	46-50	01
	>50	01
Specialty	Generalist	01
	Medical-surgical	04
	Medical	03
Destination country	The USA	01
	UK	01
	France	03
	Germany	01
	Canada	01
	Middle East	01

## 2.4 Establishing trustworthiness

To ensure the trustworthiness of the study, the researcher used mechanical recording rather than notes which allowed data to be scrutinized (Gray, 2018). A contradictory evidence method was applied as Maxwell (2010, p. 284), stated "identifying and analyzing discrepant data and negative cases is a key part of the logic of validity testing in qualitative research". This was done by examining the account for all data which may contradict our conclusions. We also applied member checking by paraphrasing, seeking further clarification on participants' responses where there is ambiguity in their statements, and focusing on their tones while they speak (Gray, 2018). Furthermore, Triangulation and fair dealing were applied where we compared the results obtained from different participants who returned from other countries where they immigrated. Moreover, we made use of experts to analyze and generate their own category system (Brink, 1993).

## 3. Results

### 3.1 Perceptions and experiences about pull factors

#### 3.1.1 Working conditions

Participants are more attracted to countries with better working conditions related to well-advanced health system, and resilient and secure environment in which they provide health care. Working conditions are the environment in which an individual performs his work. It includes all physical and psychological factors and circumstances that influence his work (Manyisa & van Aswegen, 2017). These conditions tempt migrants to work in destination countries and settle permanently to provide health services in a country where they have not been educated (Boncea, 2015).

##### 3.1.1.1 Advanced health system

Highly advanced industrialized countries are well known by their developed health system (Ridic et al., 2012). All of our participants confirmed that advanced health system in the destination countries played a crucial role in emigration, for example, one medical-surgical said:

*"Working in France for example, offers me the opportunity to work in a well advanced health system... I always believe that working abroad with greater access to enhanced technology is the best option".*

For participants, compared to LMIC, health system in destination countries is more advanced and equipped with high technologies which allowed a pertinent diagnostic for patients. Participants personal evaluation in terms of access to technology was still inadequate. Although the Algerian healthcare system is ranked among the best in Africa (Klouche-Djedid et al., 2021).

##### 3.1.1.2 Resilience and restoration

Participants reported that countries of their actual work enjoy less degree of stress and exhaustion where they work in resilience and restoration. Working condition is closely related to health-worker motivation as a determinant of performance (Rowe et al., 2005). Although a participant confessed that he witnessed some workloads in a German hospital, however, it is not as much as in the source country. It is worth noting that some studies indicated that working environment

in German hospitals has seen significant changes over the last few years, thus workloads have continuously increased (Sturm et al., 2019). One medical-surgical cited:

*"As a specialist, medical profession is hard even though there exist some pressures at work, but the level of exhaustion still differs in high income country such as Germany, I can feel that difference where I enjoy here some resilience and restoration".*

The issue of work pressure at work was a substantial concern for doctors, affecting both their personal welfare and professional productivity. The pressure originated from various sources and might result in significant consequences if left unattended.

### 3.1.1.3 Security and protection

Moreover, even though violence is a common phenomenon in developed country and alarming phenomenon worldwide (di Martino, 2002; Ferri et al., 2016), the participants reported that they felt more secured in their working environment which is a factor of motivation. As one medical doctor told:

*"I prefer to practice my profession oversea in a more stable and secured environment, no fear no anxiety... even when mistakes happen I am protected, this pushes me forward to be a hard worker".*

By this way, security appears to be more than just working in a secured environment in terms of external violence, but protection in terms of taking responsibility when errors are committed, the institution provides protection for practitioners.

### 3.1.2 Personal reasons

The interviewees showed a deep appreciation of their profession and the need to ameliorate oneself by collaboration with researchers from other countries and enhance their capacities.

#### 3.1.2.1 Recognition and research opportunities

Recognition of HCPs mainly doctors in destination countries embraces several policies developed to acknowledge HCPs qualifications and skills. This kind of recognition is vital for incorporating them into the labor market. Most of our participants reported that recognition is a significant factor in

the destination country as a pull factor, as one of our participants said:

*"Collaboration with international researchers and experts will rise the chance of international recognition, I want my researches to be valorized and visible to the scientific community".* Medical doctor.

Also, opportunities in opening new research perspectives to be visible for all is a key factor contributing to emigration. Establishing a worldwide network of professional connections might provide access to potential future prospects and partnerships.

#### 3.1.2.2 Career advancement prospects

Participants believed that opportunities associated with further specialization and training are perceived as attractors in receiving countries. Developed countries improve their postgraduate education raising the opportunities for potential migrant to develop their professional training and to be recognized in job market as well as scientific community then gaining the status of a Western-trained doctor (Tjadens et al., 2012). This is evident in the following statement of one of the generalist participants:

*"I am looking for career advancement which is absolutely possible in advanced countries, the more you advance the more you know that more people are in need to your skills which is satisfying".*

Highly advanced health system with a strong research culture provides health professionals with opportunity for further development (Jonker et al., 2020). The absence of education and acquisition of skills opportunities in LMIC has been reported as a 'root cause' of migration of HWs to HIC (Dayton-Johnson et al., 2010). However, participants' point of view is questioned compared to what recent studies highlighted. Many emigrant physicians experienced slow or stagnant career progression (Tyrrell et al., 2016)

### 3.1.3 Socio-economic Factors

Participants expressed their satisfaction with socio-economic conditions in the host country which played a significant role in their migration decision. Factors related to: high salary, standards of life, life balance and of improving the quality of life of emigrant's family.

### 3.1.3.1 High salary

All of our participants mentioned high salary in the destination country as one of the most important factors of leaving to work abroad, as one of our participants said:

*"High income countries offer better and high salary for its health workers... by this way, in the UK for example, I can ensure my family's future and wealth".* Medical-surgical.

High salary is related to every day's commitment mainly related to family.

### 3.1.3.2 Better standards of life

Most of emigrant physicians frequently pursue chances overseas in order to enhance their quality of life. Various factors contribute to enhanced living conditions for physicians who opt to work in foreign nations, as one of the medical doctors said:

*"The standards of life style here are incomparable, it is like two different worlds ... yes it is expensive in terms of food, transportation and housing but when you think in terms of quality of education, social security and health services it's more contenting".* Medical doctor.

Emigrant physicians have the potential to greatly improve their quality of life, experience professional development, and find fulfillment and enrichment by living and working in another country.

### 3.1.3.3 Life balance

Most of the participants referred to life balance as a prerequisite for them in choosing the destination country. Participants enjoy access to top-notch healthcare services, good relationships, productive life and good performance. In this regard, one of the generalist participants told:

*"One can achieve life balance in foreign countries in terms of relationships, healthy life, productivity and performance... I admit that one may face some challenges and it is hard to manage however it's much better to live permanently here".* Generalist.

Although it is hard to achieve life balance in a new environment, participants showed an inclination to live for a long period of time in the

destination country rather than to continue working and living in the source country.

### 3.1.3.4. Family's Well-being and Future

Most Interviewees cited factors related socio-economic environment as a major advantage and the most compelling reason for emigration to foreign countries. One of the our participants said:

*"Economic stability in other high income countries makes immigrant more comfortable, this raise the possibility of improving the quality of life of my family and children, both here and my country of origin".* Medical-surgical.

High salary played a role in both enhancing the overall well-being of emigrants and assisting emigrants' families in their home by sending remittance (Eaton et al., 2023). In this way, emigration become a strategy by which families expand their sources of earnings.

## 3.2 Perceptions and experiences about push factors

### 3.2.1 Working conditions

Some participants view working conditions in the home country as a source of fear, workload, stress, instability, marginalization and alienation. These conditions played a pivotal role in feeding the desire to leave the country and work abroad. Many participants recounted that the overall working climate forced them to emigrate which reflects what may be labeled as "involuntary emigration". According to the research participants, they often migrate in search of better living conditions and to escape the unsuitable working environment that lacks the humanistic treatment.

#### 3.2.1.1 Insecurity

The participants experience insecurity due to violence at work, as one medical and medical-surgical of our participants said:

*"It was the first time when I was horrified when I saw that men approaching, I really was working and doing my duty ... that day was unforgettable... My hands were shaking, I felt helpless and shocked when the patient's family push me".* Medical doctor.

*"I experienced two times a case of aggression ... it was frightening, I come into conclusion that emigration is a must".* Medical-surgical.

From participants' responses, it is clear that healthcare facilities suffer from a deficiency of sufficient security personnel to effectively respond to violent situations.

### 3.2.1.2 Stress

Stress is a significant catalyst for physicians to emigrate. Participants encountered overwhelming workloads as a result of insufficient staffing, resulting in extended shifts, insufficient breaks, and physical fatigue. For example, this was reported by our participants where they said:

*"I felt overwhelmed by the stress and workload which caused me losing motivation... I lost my ability to focus in work, ... too much work made me find it hard to make decision".* Generalist.

*"In some cases we lived moments where we felt that are just like machines".* Medical doctor.

Our interviewees were overwhelmed by an excessive workload, tight deadlines, and lengthy working hours.

### 3.2.1.3 Alienation

The interviewees cited that the feeling of alienation and marginalization strips them of confidence in doing their work, and the awareness of the alternative fuels the desire to leave. Another dimension related to the sense of alienation is related to medical error. The participants did not feel that they are legally protected and punishment in this case is unjust. Two of our participants said:

*"It is just like living in the edge of society ... alienated from our work and status... I remember once where I was treated unfairly ... it was at that moment where I said no, I have to leave".* Medical doctor.

*"You know, medical profession is subject to errors, if one committed an error he will confront two options accountability and retribution but not protection which is not faire at all".* Medical-surgical.

Alienation, as described in the quoted passages, refers to the state in which participants experienced a sense of disconnection, isolation, or estrangement from their work, colleagues, and occasionally their own identity.

### 3.2.2 Personal reasons

Some interviewees indicated that emigration is associated with the desire for more educational and career opportunities. This inclination seems to be not supported in the source countries. This was clear when two of our interviewees said:

*"Doctors need more educational opportunities, not just more money, we need to enhance our capacities in the field, and our country is limited in this regard comparing it to other advanced countries".* Generalist.

*"It is supposed that being a doctor means that you are open to more career opportunities, but it is so hard to achieve your goals".* Medical doctor.

Some of our interviewees emigrated in order to access higher educational options that are either unavailable or restricted in their countries of origin. This frequently happened when physicians are searching for particular academic programs or research potential that can improve their employment prospects.

### 3.2.3 Socio-economic Factors

From the perspective of the interviewees, the need for adequate socio-economic environment was one of the main priorities in continuing working in their home countries. Participants cited that they suffer from socio-economic pressures that made them trapped and restricted in a social system from which they can only be liberated through the act of emigration. Thus, it became an act of emancipation through which living in another place can provide better living opportunities.

#### 3.2.3.1 Family needs

The majority of the participants, contemplated emigrating due to a range of issues associated with the welfare of their families. As one of our participants said:

*"It is not limited to it, but low salary is one of the major issue, because with that salary I can never meet my nor my family needs, it is like running behind some unreachable dreams".* Medical doctor.

The consideration of family requirements is a crucial component in physicians' decisions to emigrate. This aspect involved a complex interaction of economic, social, educational, and personal factors.



### 3.2.3.2 Low pay

All of our participants alluded to weak salaries as a reason of emigration. Low salary was a common factor that prevented the interviewees from moving forward in their life, as two participants said:

*"To struggle every day to get paid at the end of the month what does not ensure your family needs is a matter of dignity".* Generalist.

*"The fact that money is the backbone of life cannot be overlooked. If I have been doing my job as a doctor for many years and I still suffer from this insufficient salary, then I will face the fact that I am shackled and have to emigrate as a matter of necessity".* Medical-surgical.

### 3.2.3.3 Hard living conditions

The majority of our interviewees experienced some conditions that included a variety of challenges related to the overall living conditions, some participants said:

*"living conditions make me stressful, my perspective is to live in a stable community with more respectability and honor which I cannot feel in home country".* Generalist.

*"Do you know and understand what it means to feel that you are shackled all the time, throughout your presence in the workplace or in the neighborhood in which you live..., but I also have rights... the right to live in reverence".* Medical doctor.

*"I remember some events that were engraved in my mind... some events related to justice and equality... whether in rights or duties... whether they were related to me or to members of society... the general atmosphere did not encourage moving forward".* Medical-surgical.

Many participants found it difficult to adapt to living conditions in their home countries as a source of constraint which create more pressures for participants to thrive in other countries.

## 4. Discussion

This study investigated how emigrant physicians experienced and perceived factors that pushed them to leave their home country and work abroad. By focusing on push and pull factors,

the research sought to expand and enhance the existing understanding of emigration motives.

As for pull factors, good or improved working conditions primarily pertain to highly developed recipient countries mainly France, Germany, the UK, the USA, Austria, and Sweden (Tjadens et al., 2012). As a result, physicians appear to prefer these countries as a ubiquitous choice among physicians (Shaffer et al., 2022). Economic benefits in considering migration has been documented considerably in the literature (Clemens et al., 2018). Salaries in source and destination countries impacted both the inclination to emigrate and the selection of a destination country (Apostu & al., 2022; Astor et al., 2005; Awases et al., 2004; Bhargava et al., 2011; Humphries et al., 2021; Ifanti et al., 2014). Moreover, physicians emigrated in search for higher quality of life which encompasses social, psychological, economic, environmental political, and health-related dimensions. Furthermore, it has been recognized that family is a major factor contributing to a migration decision-making process. It has been understood "as part of a wider set of group strategies aimed at sustaining and improving socio-economic conditions" (Massey, 1990, p. 4). Personal motives are in the core of factors influencing physicians to work in other country other than their home country, as revealed in many studies (Akl et al., 2007; Ali et al., 2012; Asadi et al., 2018; Awases et al., 2004; Clarke et al., 2017; Vaughan & Carey, 2002).

As for push factors, violence as an act or a threat directed against employees such as verbal abuse, bullying, harassment, and physical assaults to homicide (Lim et al., 2022), was reported in research as a major motive for emigration (Parkins, 2010). Additionally, work and professional context was an important determinant, which is indisputably documented in the migration literature (Botezat & Ramos, 2020; Clarke et al., 2017). Therefore, departing appears to be a completely rational decision under these circumstances. Also, workload is one of the main challenges confronting physicians in the delivery of health care which widely attributes to physicians' shortage (Al-Dabbagh et al., 2022). The workplace was described as contributing to professional identity in several studies. Workplace was described as influencing professional identity through perceived inadequacy of workplace conditions (Cornett et al., 2023). The sense of belonging is a crucial factor in understanding migration dynamics where individuals seek places where they feel to be a constituting part of the

whole. Physicians often emigrate for the sake of career progression and personal concerns for better opportunities, in a society other than the one in which they failed (Asadi et al., 2018; Clarke et al., 2017). Thus, emigration is an operational process through which this failure can be remedied. These convictions that were generated as a result of discouraging circumstances that do not prompt moving forward make physicians contemplate the extent of the possibility of moving from his current situation to a better situation. Algeria as a source country is still lagging behind in comparison with developed nations in terms of career progression, and this is a rooted trait of developing countries which developed nations took advantage of to recruit HWs (Dayton-Johnson et al., 2010). Socio-economic circumstances are at the center of factors leading to emigration that dominate the process of migration. It is for this reason that the mobility of health care professional mostly takes place in LMIC (Eaton et al., 2023) As previous research showed that physicians move abroad in search of more social and economic stability (Adebayo & Akinyemi, 2022; Adovor et al., 2021). The overall inadequate economic conditions in the source country significantly effects PhE (Okeke, 2013). The World Bank reported a national gross income amounted to 3,920 U.S. dollars in 2022 in Algeria which is low in comparison to the national gross income in USA that amounted to 65,423 U.S. dollars (Statista, 2024).

## 5. Conclusion

This is the first study that addressed the roots of Algerian PhE qualitatively, with a particular emphasis on the experiences and perception of push and pull factors. This study identified main push and pull factors of physicians' migration. Pull factors include advanced health system, resilience and restoration, security and protection recognition and research opportunities, career advancement prospects, high salary, better standards of life, family's well-being and future life balance. Push factors include stress, violence, marginalization, limited educational opportunities, limited career opportunities, low pay, hard living conditions and family needs. Pull factors were identified qualitatively as favorable and promising conditions in host countries where physicians can work and live in a more supportive and propitious environment. Meanwhile push factors were highlighted qualitatively as challenges and obstacles rooted in the home country which are considered stressful for physicians, and which eventually prompt them

to choose emigration as an alternative option and executive solutions through which they can achieve what they aspire for. Both push and pull factors promote migration and aggravate the deficiency in HWs in LMICs (Joshi et al., 2023).

## Policy Implication

Understanding factors of emigration goes beyond providing a list of motives. It should be used for future research development and as a valuable reference point for policy measures to prevent or mitigate its impacts, it is for this reason that governments in many LMICs encourage health professionals to stay in their home country. In this regard policy makers need to implement fundamental changes in the overall climate of work and narrowing the gap between home and destination countries. Besides, relying solely on economic measures to avoid brain drain is imprudent, as a national-level climate, appropriate regulations, robust property rights, and research infrastructure can all have significant impacts (Bhardwaj & Sharma, 2023).

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