


Critical Factors Favoring Outward Physician Migration from an Affluent Gulf Country

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Background: Physician retention is essential to creating a strong and stable healthcare system worldwide. The density of physicians and nurses significantly impacts important population health outcomes. Globalization has enabled the mobility of physicians, but the recruitment and retention of quality physicians have not been without challenges. The purpose of this study was to identify the outward migration factors affecting expatriate physicians who have resided and worked in the United Arab Emirates (UAE) for at least 5 years, as compared with newly emigrated physicians. This physician population has likely adapted to the local environment and actively contributed to the advancement of medical care in the country; their attrition is a significant loss to the UAE healthcare system.

Methods and Statistical Analysis: A 23-point validated survey questionnaire, consisting of four domains, was electronically administered to the participants (n = 374), and responses were statistically analyzed, using descriptive statistics and the Chi-square test.

Results: Our results indicate that all physicians considered a ten-year visa to be factor contributing to retention, more so for the recent physician migrants to the UAE. Professional development opportunities, career-specific plans and income promoted only short-term retention of physicians in the UAE. Non-financial factors related to living and working conditions prevented migration of physicians who lived in the country for more than five years.

Conclusion: Lifestyle-related factors are an important consideration in long-term retention of physicians in the UAE. Initiatives to promote career advancement and improve job satisfaction for mid- and late-career clinicians are necessary to set the foundation for a robust physician retention policy and to enhance the quality of the healthcare system. Long-term visas provide an additional factor for retention.

Keywords: healthcare workforce, manpower planning, physician migration, globalization, retention policies, health systems reform, Middle East

Plain Language Summary

The migration of physicians from low and middle income to high-income countries has become a global health concern. Health worker migration decisions are influenced by many personal, professional, financial, and political reasons. Our results show that salaries and career-related opportunities contribute to the short-term retention of physicians in the UAE; but lifestyle related factors play a more important role in long-term retention.

Background

The shortage of skilled health practitioners is a global concern. Studies show that the density of physicians and nurses correlates significantly with important population health outcomes, including life expectancy and infant and child mortality

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rates.¹ [REF] However, approximately half of countries worldwide do not currently train adequate numbers of healthcare professionals to meet population needs, and rely on the importation of an expatriate health workforce.² Globalization has enabled the increased mobility of health practitioners, primarily from low and middle-income countries to high-income nations, but the recruitment and retention of quality physicians have not been without challenges. The coronavirus 2019 (COVID 19) pandemic has exacerbated the consequences of these physician migration patterns.³ The source countries suffer from medical “brain drain” by educating and training practitioners without benefitting from their clinical practice, leading to shortages and weakening of the healthcare systems, leaving them ill-equipped to respond to crises.⁴ It is estimated that the financial costs associated with excess mortality due to physician migration in low income countries are approximately 15 billion US dollars annually. Studies also suggest that many immigrant clinicians face discrimination, wage disparities, underemployment and deskilling.⁵ For the destination countries, expatriate healthcare practitioners can impose their own cultural values, which may be incongruent with the customs and norms of the society they are serving, resulting in decreased patient satisfaction and low adherence to treatment regimens.⁶ High attrition also leads to the loss of expertise and increased recruitment costs.⁷

The United Arab Emirates (UAE), a high-income Gulf country, offers a unique opportunity to examine health professional migration trends. In recent decades, the UAE has invested substantially in the development of healthcare and education infrastructure. Yet, despite improvements in the quality of medical education and increases in the quantity of medical trainees,⁸ the country has not achieved medical workforce self-sufficiency, primarily due to an aging population and high prevalence of cancer and chronic diseases.^{9–11} Moreover, health systems in the UAE have high turnover rates and retention issues.¹² A 2012 study, for example, revealed that 12% of nurses and 15% of physicians left the UAE workforce in a single year.¹³ Although published national statistics are lacking, in Abu Dhabi, expatriates comprise 87% of the physician workforce.⁹ The majority of expatriate healthcare workers in the UAE are recruited from neighboring Arab countries, South Asia and Southeast Asia.⁹ Residence visas for physicians are linked to the healthcare facility of employment and require renewal every 3 years. In 2019, 10-year visas were made available to eligible physicians in the

country.¹⁴ This study is part of a larger project evaluating expatriate physician retention in the UAE. We have previously reported that expatriate physicians in the UAE primarily cited lifestyle related factors in their decision to remain in the country, specifically quality of life, proximity to extended family and personal and family safety.¹⁵ In this study, we look specifically at outward migration intentions of expatriate physicians who have resided and worked in the UAE for at least 5 years, as compared with newly emigrated physicians. This physician population has likely adapted to the local environment and actively contributed to the advancement of medical care in the country; their attrition is a significant loss to the UAE healthcare system.

Methods

Survey Participants

Participants included expatriate physicians working and living in the UAE. Inclusion criteria included expatriate (immigrant) physicians, between the ages of 21 and 65, who were engaged in active medical and dental practice, as verified by their active professional license and national identification card. UAE nationals and participants unwilling to consent were excluded from the study. The expatriate physicians were categorized as: a) actively practicing medicine and living in the UAE for less than 5 years (early immigrants), and b) actively practicing medicine and living in the UAE for 5 or more years (late immigrants).

Survey Administration

Development and validation of the survey questionnaire has been previously described.¹⁵ The instrument consists of 23 items, organized into 4 domains, namely work and career, cost and quality of life, family and social life, and health system and regulation. A cross sectional survey was administered between November 2018 and September 2019 to physicians working in public and private hospitals and clinics in 4 emirates in the UAE- Abu Dhabi, Ajman, Ras Al Khaimah and Umm Al Quwain. Physician researchers approached potential respondents during routinely scheduled meetings, conferences and training workshops. Respondents completed self-administered electronic surveys. Written informed consent to participate in the survey was obtained. No incentives were offered for participation.

Data Analysis

Responses were tabulated into two categories: (1) very likely and likely to leave UAE and (2) unlikely and very unlikely to leave UAE, and represented as a percentage of the cumulative response.¹⁶ Chi-square test was used to analyze the differences between early and late immigrant physicians. Statistical significance was determined and p-value of ≤ 0.05 was considered statistically significant. The study was reviewed and approved by the Tawam Hospital research ethics committee. The study was conducted in accordance with the Declaration of Helsinki.

Results

A total of 374 physicians from across the UAE successfully completed the questionnaire. Approximately 52% (199/374) of the participants lived in the UAE less than 5 years, and were categorized as early immigrants. The remaining 47% (175/374) of respondents lived in the UAE for 5 or more years, and were categorized as late immigrants. The median duration of UAE employment for the early immigrants and the late immigrants were 3 and 9 years, respectively.

Factors Promoting Outward Migration of Physicians

Six factors promoted the outward migration of practicing physicians from the UAE, with half from the “Work and Career” category. The factors most frequently reported to

encourage physicians to leave their destination country included work hours, job security, job satisfaction, and career advancement, irrespective of duration of employment. Job satisfaction (125/175, 71.4%, $p<0.05$), job security (103/175, 58.9%, $p<0.05$), extended work hours (102/175, 58.3%, $P<0.001$), and lack of career advancement opportunities (115/175, 65.7%, $p<0.05$) were more likely to contribute to the migration of the late immigrant physicians, as compared with early immigrant physicians (Table 1). In the “Cost and Quality of Life” domain, cost of living affected both groups of physicians, but only 11.4% of the late immigrant physicians, compared to 18.1% of the early immigrant physicians ($p<0.002$), considered it to be a factor in remaining in the UAE (Table 1). Interestingly, none of the factors from the “Family and Social Life” domain contributed to the outward migration of either group of physicians from the UAE.

Factors Promoting Retention of Late Immigrant Physicians

Work-life balance was a decisive factor for the late immigrant physicians to remain in the country (62.9%), when compared to the early immigrant physicians (52.3%, $p<0.01$) (Table 2). In fact, work-life balance is the only factor from the “Work & Career” domain that prevented the exodus. The social environment (64.6% vs 47.7%, $p<0.01$), spouse’s employment opportunity (58.7% vs 42.7%, $p<0.005$), and proximity to extended family

Table 1 Assessment of the Pull Factors Promoting the Outward Migration of Late Immigrant Physicians from the UAE

Domain	Factors	Physician Category	Neutral (n)	Neutral (%)	Pull (n)	Pull (%)	Hold-Back	Hold-Back (%)	P value
Career & Work	Work Hours	Early	11	5.5	113	56.8	75	37.7	0.00***
		Late	26	14.9	102	58.3	47	26.9	
Career & Work	Job Security	Early	6	3.0	113	56.8	80	40.2	0.05**
		Late	2	1.1	103	58.9	70	40.0	
Career & Work	Job Satisfaction	Early	7	3.5	124	62.3	68	34.2	0.05**
		Late	13	7.4	125	71.4	37	21.1	
Career & Work	Career Advancement	Early	7	3.5	135	67.8	57	28.6	0.05**
		Late	13	7.4	115	65.7	47	26.9	
Cost & Quality	Cost of Living	Early	11	5.5	163	81.9	25	18.1	0.002**
		Late	7	3.5	148	84.5	20	11.4	
Regulation	Change Jobs	Early	18	9.0	115	57.8	66	33.2	0.020**
		Late	6	3.4	105	60.0	64	36.6	

Notes: n = actual numbers; % = total percentage; P value = statistical significance **Significant, ***Highly significant.

Table 2 Assessment of the Hold-Back Factors Promoting the Retention of Late Immigrant Physicians in the UAE

Domain	Factors	Physician Category	Neutral (n)	Neutral (%)	Pull (n)	Pull (%)	Hold-Back	Hold-Back (%)	P value
Career & Work	Work-life Balance	Early	6	3.0	89	44.7	104	52.3	0.01**
		Late	6	3.4	59	33.7	110	62.9	
Family & Social Life	Social environment	Early	13	6.5	91	45.7	95	47.7	0.01**
		Late	3	1.7	59	33.7	113	64.6	
Family & Social Life	Spouse Employment	Early	10	5.0	104	52.3	85	42.7	0.005**
		Late	23	13.1	41	26.5	91	58.7	
Family & Social Life	Proximity to extended family	Early	23	11.6	108	54.3	68	34.2	0.01**
		Late	17	9.7	72	41.1	86	49.1	
Cost & Quality	Multicultural environment	Early	4	2.0	83	41.7	112	56.3	0.000***
		Late	0	0.0	52	29.7	123	70.3	
Cost & Quality	Family Safety	Early	29	14.6	84	42.2	86	43.2	0.03**
		Late	11	6.3	46	26.3	118	67.4	
Cost & Quality	Political Stability	Early	0	0.0	65	41.7	134	67.3	0.040**
		Late	4	2.3	38	29.7	133	76.0	
Cost & Quality	Quality of Life	Early	9	4.5	91	45.7	99	49.7	0.001***
		Late	7	4	46	26.2	123	70.2	
Regulation	Health Regulation	Early	46	23.1	62	31.2	91	45.7	0.030**
		Late	14	8.0	79	45.1	82	46.9	
Regulation	10 Year Visa	Early	12	6.0	32	16.1	155	77.9	0.002**
		Late	18	10.3	36	20.6	121	69.1	

Notes: n = actual numbers; % = total percentage; P value = statistical significance **Significant, ***Highly significant.

(49.1% vs 34.2%, $p < 0.01$), were also reported to significantly contribute to late immigrant physicians' decisions to remain in the UAE, when compared with their early immigrant counterparts (Table 2). Approximately 70.3% of the late immigrant physicians considered the multicultural environment to be a positive factor influencing their decision to remain in the UAE (Table 2). Family safety (67.4%) and political stability (76%) also promoted retention of the late immigrant physicians. Quality of life was another significant factor promoting retention of the late immigrant physicians (Table 2). Almost 70.2% of the late immigrant physicians reported quality of life as a factor to remain in the UAE, as compared with 49.7% of the early immigrant physicians ($p < 0.001$). The possibility of obtaining longer-term visas positively influenced both groups of physicians, but more so for the early immigrant physicians (77.9% vs 69.1%, $p < 0.002$) (Table 2).

Competitive income, work load, employment duration, children's education, family's demand to settle elsewhere, value added tax expenses, and peer pressure to succeed were not perceived as significant influencers of retention (Table 3).

Discussion

Understanding the perceptions of physicians can help policy makers tailor programs to optimize retention strategies. Maintaining a sustainable workforce supports the provision of high-quality healthcare by contributing to increased clinician experience and skill and greater continuity of care for patients.¹⁷ Consistent with the literature on physician migration,^{18,19} our findings confirm that income and career-specific factors, such as professional development opportunities, can support the short-term retention of health professionals, but do not currently

Table 3 Assessment of Other Factors That are Neither Enabling (Pull) or Preventing Outward Migration (Hold-Back) of the Immigrant Physicians from the UAE

Domain	Factors	Physician Category	Neutral (n)	Neutral (%)	Pull (n)	Pull (%)	Hold-Back	Hold-Back (%)	P value
Career & Work	Competitive Income	Early	9	4.5	122	61.3	68	34.2	0.90 [†]
		Late	6	3.4	109	62.3	60	34.3	
Career & Work	Work Load	Early	23	11.6	80	40.2	96	48.2	0.08 [†]
		Late	9	5.1	86	49.1	80	45.7	
Career & Work	Employment Duration	Early	9	4.5	95	47.7	95	47.7	0.62 [†]
		Late	3	1.7	87	49.7	85	48.6	
Family & Social Life	Children's Education	Early	12	6.0	147	73.9	40	20.1	0.46 [†]
		Late	14	8.0	123	70.3	38	21.7	
Family & Social Life	Family Demand	Early	16	8.0	108	54.3	75	37.7	0.32 [†]
		Late	8	4.6	92	52.6	75	42.9	
Cost & Quality	Expense VAT	Early	26	13.1	123	61.8	50	25.1	0.490 [†]
		Late	16	9.1	106	60.6	53	30.3	
Cost & Quality	Peer pressure	Early	20	10.1	78	39.2	101	50.8	0.100 [†]
		Late	33	18.9	70	40.0	72	41.1	

Notes: n = actual numbers; % = total percentage; P value = statistical significance [†]Not significant.

influence the long-term retention plans of physicians in the UAE. Non-financial factors regarding living and working conditions had greater impact on duration of stay and long-term retention. Although these physicians may decide to remain in the country because of lifestyle considerations, the unintended consequence of this situation may be the development of a large cadre of mid and late-career physicians that lack job satisfaction or opportunities for career growth and advancement. Studies have shown that improving job satisfaction benefits physician wellbeing and decreases burnout and attrition.²⁰ Further, physician career satisfaction directly impacts patient satisfaction and the quality-of-care delivery.²¹ As such, investment in workplace conditions and professional opportunities for physicians in all career stages can positively impact the quality of clinical care provided to UAE patients.

Our findings have several implications for workforce planning and health policy. As several factors influence duration of stay, effective retention strategies must be multi-pronged, and should be directed at both the service and system level. The literature suggests a comprehensive retention strategy, comprised of developing appropriate infrastructure, maintaining sufficient staffing, offering competitive salaries, providing family

and social support, and recognizing clinicians that contribute significantly to patient care.²¹ Our results add to the physician migration literature by providing targets for retention strategies for expatriate physicians at all career stages. For early migrant physicians, increasing financial incentives and career opportunities can optimize retention. For physicians already living and working in the destination country for several years, retention strategies should focus on the work environment, fostering support and engagement, and policies that improve work-life balance. It is notable that the vast majority of respondents considered the 10-year visa to be an important factor in the decision to remain in the country. Several global studies have shown that policies providing job security are positive determinants of physician retention.²²

Finally, there is limited published data on the effectiveness of retention strategies. Research is necessary to assess the impact of these programs on physician retention and length of stay.

Our findings should be viewed in light of some important limitations. First, participants represent a small cohort of expatriate physicians in the UAE, and may not be generalizable to the larger expatriate physician community.

Further, responses reflect perceptions and not actual migration intentions. Missing from the analysis is factors influencing the outward migration of physicians who have already left the UAE health system. Also, the survey may not have fully addressed all factors influencing physician migration decisions, such as individual physician characteristics or other employment opportunities. Further, survey questions sought to identify factors contributing to outward migration from the UAE, but did not specify intended migration back to the respondent's home country or to another destination country. Finally, the study focuses on physicians, who comprise an important, but small, subset of the healthcare workforce.

Conclusion

Physician migration affects the strength and stability of health systems worldwide. Although globalization has enhanced the mobility of physicians, recruitment and retention of quality physicians have not been without challenges. Income, professional development opportunities, and career-specific factors promoted short-term retention of physicians in the UAE. To encourage long-term retention, health policy makers also need to focus on non-financial strategies, including strategies to improve job security and support work-life balance.

Study Participant Consents

Written informed consents were obtained from all participants per the requirement of the research ethics committee. All applicable ICH-GCP guidelines were adopted during the course of the study. The study was conducted in accordance with the Declaration of Helsinki.

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Disclosure

All authors declare no conflicts of interest.

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