



Should I stay or should I go now? The impact of “pull” factors on physician decisions to remain in a destination country

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Summary

Background: The recruitment and retention of a competent health care workforce is a worldwide problem. Globalization and increased mobility have provided skilled clinicians the freedom to offer their services in an interconnected global employment market, with multiple studies revealing a pattern of migration from low- and middle-income countries to high-income countries in North America, Western Europe, and more recently, the Middle East. The purpose of this study is to review the United Arab Emirates health care manpower strategy and to assess the impact of pull factors on physician retention plans.

Methods: The study employed a mixed-method comparative approach, comprising a comprehensive review of the literature on human resources for health issues and physician migration patterns, along with a cross sectional survey of expatriate physicians working in private and public sectors in the United Arab Emirates (UAE) between November 2018 and March 2019.

Results: Of 479 physicians, 374 participated (79% response rate). Issues related to family and social life encouraged remaining in the UAE, including close proximity to extended family, social environment, and spouse's employment opportunities. The government's new policy to provide 10-year visas to health professionals was perceived as an important factor encouraging retention. Only

35% of respondents felt that their income was an important factor in deciding to remain in the UAE. Significant gender differences exist in physician migration decisions.

Conclusion: Factors influencing retention of the UAE's expatriate physician workforce are primarily lifestyle-related. Physicians also report positive perceptions of newly implemented visa policies.

KEYWORDS

globalization, health care workforce, man power planning, physician migration, retention policies

1 | INTRODUCTION

The recruitment and retention of a competent health care workforce is a worldwide problem, affecting both emerging and developed countries. The shortage of human resources for health is a significant concern, with negative consequences for patient care and health systems. Studies have directly linked the concentrations of skilled health professionals with a country's key health outcomes, including infant, child, and maternal mortality.¹ This is complicated by the fact that the world is experiencing a global health care worker shortage.² Almost half of countries worldwide do not educate and train enough health care workers to meet population needs.³ Predictive models warn that by 2030, there will be a net shortage of approximately 15 million clinicians,² with the most critical shortages in high and upper middle-income countries, where an aging population and increased prevalence of noncommunicable diseases will create a substantial demand for skilled health care professionals.²

Within the context of a worldwide clinician shortage, globalization and increased mobility have provided skilled clinicians the freedom to offer their services in an interconnected global employment market. Though international health workforce migration flows are complex, multiple studies reveal a pattern characterized by migration from low- and middle-income countries to high-income countries in North America, Western Europe, and more recently, the Middle East, further contributing to inequity of health services and disproportionate distribution of health professionals between countries.^{4,5} There is a large body of literature exploring the complex interplay of personal, professional, economic, political, and societal factors influencing health worker migration, often described in simplistic "push" and "pull" dynamics. Push factors drive the outward migration from source countries and include low salaries, poor working conditions, and political instability.⁶ Pull factors include higher remuneration, professional development opportunities, and better living and working conditions at destination countries, which provide an incentive for health workers to immigrate.⁶ While considerable research has attempted to address the disparities in human resources for health that exist both within and between countries, most studies have concentrated on policies to mitigate push factors for skilled health care workers leaving source countries. Much less attention has focused on the health workforce recruitment strategies in destination countries. There is also a dearth of data on the effectiveness of retention policies in these receiving countries. For destination countries, there are clear disadvantages to having a highly transient expatriate medical workforce. The avoidable loss of skilled health care workers results in loss of expertise and increased recruitment costs.⁷ In fact, a productive, sustainable, and professionally satisfied workforce is often associated with an experienced and better skilled staff and better continuity of care, resulting in improved patient care outcomes.⁷

The United Arab Emirates (UAE) is a small, oil-rich country in the Middle East. In just under 50 years, the nation has transformed from a primitive, Bedouin society to a major economic and political force and is currently focusing on expanding and improving its education and health care systems.⁸ Historically, the UAE, like many of its Gulf

neighbors, has relied primarily on an expatriate medical workforce to provide care for its citizens. Previous reports estimate that less than 10% of the health care workforce is composed of UAE nationals.⁸ The clinician shortage is compounded by the fact that the country's rapid growth and urbanization have resulted in a dramatic increase in lifestyle-related diseases, including diabetes, obesity, and cardiovascular diseases.⁹ In light of an aging population and burgeoning of noncommunicable diseases, the projected future demand for health care professionals cannot be met by importation alone. As such, the UAE has developed several different policy frameworks in response to health care worker shortages, including increasing training capacity, recruiting internationally trained clinicians, and increasing the retention of the existing health workforce.^{8,10} The purpose of this study is to review the UAE health care man power strategy and to assess the impact of pull factors on physician retention plans. Although all groups of health workers, including physicians, nurses, midwives, public health specialists, and allied health providers, are essential in the provision of effective health services, this manuscript focuses on physicians, who are regarded as the frontline managers and are critical to providing quality care.

2 | METHODS

The study employed a mixed-method comparative approach, comprising a comprehensive review of the literature on human resources for health issues and physician migration patterns, along with a cross sectional survey of physicians working in both the private and public sectors in the UAE.

2.1 | Survey development

A four-stage methodology was used to develop the questionnaire. In the first stage, a purposive sample of a public health specialist, a medical researcher, and two clinically active health care professionals drafted a list of potential content areas for inclusion in the survey. The Delphi technique, a group consensus gathering methodology, was used to reach agreement among the expert panel.¹¹ In the second stage, a focus group consisting of a convenience sample of medical professionals representing general surgery, internal medicine, dentistry, family medicine, and laboratory medicine was conducted to further refine the survey items. The Content Validity Index (CVI), a rating method to rank the shortlisted survey items based on relevance and importance of the content,¹² was applied to the list. Accordingly, each member of the focus group independently scored each item of the survey instrument between 0 and 10, with higher CVI scores representing the greater relevance and importance of the survey item. Items obtaining a mean score of less than 80% were eliminated.¹² In the third stage, the revised survey was administered to a volunteer group of medical professionals ($n = 12$) for pilot testing. No personal identifiers were collected from the pilot group. The medical professionals were asked to assess the survey length, readability, comprehension, completion time, layout, and ease of administration and to eliminate repetitive or duplicate items. In stage 4, the resulting survey questionnaire was subjected to factor analysis to arrange the items into their respective domains, specifically "work and career," "family and social life," "cost and quality of life," and "health system and regulations." Maximum scores were 40, 25, 35, and 15, respectively; minimum scores were 8, 5, 7, and 3, respectively, for each of the domains.

2.2 | Survey administration

The final 23-item questionnaire was administered to physicians at hospitals and clinics in four emirates in the UAE, namely, Abu Dhabi, Ajman, Ras Al Khaima, and Umm Al Quwain, between November 2018 and March 2019. Inclusion criteria included male and female expatriate health professionals between the ages of 21 and 65, who were engaged in active medical and dental practice, verified by their active professional license. UAE nationals and participants unwilling to consent were excluded from the study. Student researchers approached potential respondents

during routinely scheduled meetings, conferences, and training workshops. Participants completed self-administered paper-based surveys.

2.3 | Data analysis

A random sample of 10% of all manually entered surveys was reviewed for data input accuracy. All data were exported to the team statistician using the Microsoft Excel 2010. The data collected were analyzed using SPSS Statistical Software Version 22 (SPSS Inc., Chicago, USA).¹³ The domains were identified using factor analysis.¹⁴ The widely used Principal Component Analysis (PCA) was used as the extraction method to undertake factor analysis, and Varimax rotation was used to rotate the factors to better fit the data.^{13,14} Convergent validity, to assess if the survey items converged to measure a construct, was also conducted using the correlation coefficient matrix method.¹⁴ The percentage of total variance by each factor was calculated, and pattern matrix was used to identify the domains. Kiaser-Meyer-Olkin (KMO) sampling adequacy and Bartlett's tests (to assess the strength of the relationship between the variables) were also applied to the questionnaire.^{13,14} The reliability of the inventory and its subscales were tabulated using Cronbach's alpha.^{13,14} The demographics of the study participants were recorded. Participant responses were expressed as mean $\pm$ SEM unless indicated otherwise. Comparisons of proportions were conducted using the Medcalc program.¹⁵ Responses were combined into two categories, specifically very likely and likely to leave UAE and 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 gender differences. Statistical significance was determined, and *p* value of less than or equal to .5 was considered statistically significant. The study was reviewed and approved by the Tawam Human Research Ethics Committee (THREC-603).

3 | RESULTS

3.1 | Survey development

Following the literature search, the expert panel generated a 26-item questionnaire to assess factors related to physician migration. The focus group then eliminated survey items that obtained the average content validity score of less than 80% based on relevance and importance (data not shown). Pilot testing further refined the survey for clarity and length and ease of completion. The final questionnaire consisted of 23 items, which were categorized into four domains following factor analysis. Thirty-five percent (8/23) of the total survey items were allocated for the work and career domain; the remainder for the family and social life (22%, 5/23), "cost and quality of living" (30%, 7/23), and health system and regulation (13%, 3/23) domains. The average time required to complete the 23-item questionnaire was 11 minutes.

3.2 | Survey validation

The consistency and sampling adequacy of the questionnaire, measured using the PCA, yielded a Kaiser-Meyer-Olkin measure of 0.76, indicating that the items correlated and are compact and that the factor analysis will yield reliable factors. Bartlett's test of sphericity was significant and showed *p* values less than .001. Cronbach's alpha reliability assessment of each of the four domains ranged between .68 and .77. Cronbach's alpha were .72, .70, .77, and .68 for the work and career, family and social life, cost and quality of living, and healthcare regulation domains, respectively. The overall Cronbach's alpha reliability score for all 23 items for the final construct was .72.

3.3 | Participant responses

Of 479 health professionals approached, 374 completed the questionnaire, yielding a 78% response rate. Participant demographics are shown in Table 1. Survey responses are shown in Table 2.

Responses ranged between 2.4 and 3.3 (mean 2.75 ± 0.05) for the work and career domain. Almost 60% of respondents felt that opportunities for career advancement, competitive income, work hours, job security, and job satisfaction were factors influencing migration out of the UAE (Table 2). The average response for the family and social life domain was 2.96 ± 0.04 (range 2.2-3.3). Several issues related to family and social life encouraged remaining in the UAE, including close proximity to extended family, social environment, and spouse's employment opportunities. Respondents, however, felt that the lack of educational opportunities for their children was the major social factor contributing to decisions to leave the country. For the cost of living and quality of life domain, responses ranged between 2.5 and 3.6 (mean 3.15 ± 0.06). The cost of living and taxes, such as the newly implemented 5% value added tax, were perceived as strong contributors to physician migration out of the UAE. In contrast, the participants perceived that the multicultural environment, personal and family safety, quality of life, and political stability were significant factors influencing remaining in the country. With regard to the health system and regulations domain, the mean responses ranged between 2.6 and 3.7 (mean 3.13 ± 0.07). The ease of changing jobs was perceived as a challenge that contributed to medical professionals choosing to leave the UAE. The government's new policy to provide 10-year visas to health professionals was perceived as an important factor encouraging retention in the country.

Significant gender differences were noted in responses (Table 3). Work and career factors, primarily seeking a more competitive income ($p < .001$) and job satisfaction ($p < .002$) were perceived to be important factors encouraging migration out of the UAE by the male physician participants, compared with female physicians. Work-life balance was perceived as a critical factor promoting staying in the country, for the male physicians, as compared with their female colleagues ($p < .001$). No significant gender differences were noted for several factors, including career advancement, employment duration, job security, work hours, and workload. Female survey respondents were significantly more likely than male respondents to perceive opportunities for children's education to be an important factor influencing migration out of the country ($p < .001$). The demands of the family to settle in the West contributed to physician migration out of the UAE for male respondents ($p < .001$). In contrast, proximity to extended family ($p < .001$), the social environment ($p < .008$), and spouse's employment opportunity ($p < .003$) were factors more likely to encourage retention for male survey respondents, when compared with their female colleagues. Other factors that contributed more to male physician retention in the UAE, as compared with female physician survey respondents, include a multicultural environment ($p < .001$) and quality of life ($p < .004$). Gender differences were not noted for several factors, including cost of living, personal and family safety, expenses and taxes, and political stability. The 10-year visa rule for medical professionals that was recently introduced by the government was considered to be a more important factor for remaining in the UAE for the women physicians surveyed, as compared with their male counterparts ($p < .05$).

4 | DISCUSSION

To the best of our knowledge, this is the first study examining the effectiveness of recruitment and retention policies and pull factors in a destination country in the Middle East. For over a decade, the UAE has imported health workers to meet local health needs and, more recently, to provide service to international patients.⁸ Since December 2014, a major priority of the Department of Health, Abu Dhabi's health care strategic plan, has been to attract, train, and retain qualified health professionals.¹⁷ To achieve this goal, the country has developed a multifaceted, comprehensive national health workforce plan. One component of the plan involves training a sufficient number of medical graduates. There are currently six medical schools in the UAE, with a seventh opening in the capital of Abu Dhabi in

TABLE 1 Participant demographics

	n (%)
Gender	
Male	193 (52)
Females	181 (48)
Age (years)	
21-30	45 (12)
31-50	218 (58)
50+	111 (30)
Social status	
Single	34 (9)
Married	316 (84)
Others	24 (7)
Nationality	
Middle East and GCC	214 (57)
Asian	122 (32)
Others	38 (10)
Spoken primary language	
Arabic	229 (61)
Asian	122 (32)
Others	23 (7)
Medical education from country	
Western	63 (17)
ME	197 (52)
Asia	114 (30)
Living in the UAE	
0-3 years	51 (14)
4-10 years	198 (53)
11+ years	125 (33)
Number of children	
None	26 (7)
2-3 children	33 (9)
3-5 children	251 (67)
6+	64 (17)
Children in UAE schools	
No	42 (11)
Yes	332 (88)
Spouse working in UAE	
No	50 (13)
Yes	324 (86)

(Continues)

TABLE 1 (Continued)

	n (%)
Spouse working in UAE as physician	
No	73 (19)
Yes	301(80)
Employment sector	
Government	208 (55)
Private	162 (43)
Others	4 (1)
Postgraduate training from country	
Western	174 (46)
Others	200 (53)
Postgraduate training centers	
Teaching Hospitals	210 (56)
Others	164 (44)
Practicing medicine in the UAE	
0-3 years	81 (21)
4-10 years	190 (51)
11+ years	103 (27)

2019.¹⁸ UAE residency programs have also expanded, with increasing numbers of specialties and fellowship programs. In Abu Dhabi, the majority of residency programs have been restructured to meet international benchmarks and are accredited by the Accreditation Council for Graduate Medical Education-International.¹⁹ Improving the structure and quality of trainee education can also benefit practicing physicians in several ways. Studies suggest that physicians view teaching as intellectually stimulating, leading to increased job satisfaction.²⁰ Further, structured residency training programs can provide physicians with educational leadership opportunities.^{21,22} However, given the long duration of medical training, many years to decades are needed for an expansion in undergraduate and postgraduate training capacity to have any considerable impact on the numbers of practicing physicians. For example, in the past decade, Ireland has significantly increased the number of health care training positions, doubling the number of physician trainees from 340 in 2007 to 725 in 2016, but the country continues to rely heavily on internationally trained doctors, who make up over a third of its medical workforce.^{23,24}

Similarly, the UAE continues to recruit international physicians who have trained abroad, which is not a sustainable long-term solution. Though data is limited, one study reported that approximately 15% of physicians and 13% of nurses left their positions in the UAE in 2012 alone.²⁵ As such, to achieve medical workforce self-sufficiency, the UAE has implemented strategies to improve physician retention.¹⁰ Within the past decade, the UAE has expanded hospital capacity, particularly in the private sector, with many hospitals achieving Joint Commission International Accreditation.²⁶ Centers of excellence have been developed throughout the country. Mandatory private health insurance has also been introduced, improving access to care for all citizens and expatriates. More recent policies have included offering part-time work opportunities in both the private and public sector and an extended 10-year visa for physicians to replace the former 3-year visa renewal process.²⁷ As most of these reforms have been implemented within the past decade, their impact may not be known for many years. Also, the complexity of health care systems prevents simplistic cause and effect conclusions.²⁸ In fact, a systematic review of UAE health system reform noted a limited number of studies, with most lacking robust methodology and failing to measure impact.¹⁰ Nonetheless, our survey of expatriate UAE doctors reveals positive perceptions of these reforms. Notably, only 35% of respondents

TABLE 2 Physician responses to the four domains (work and career, family and social life, cost and quality of living, and health care and regulation) (N = 374)

Domain	Items	Very Likely/Likely to Migrate, n (%)	Very Unlikely/Unlikely to Migrate, n (%)	Cumulative Responses	Neutral/None/ Missing	Total	Mean Response ± SEM
Work and career	Career advancement	250 (70.6)	104 (29.3)	354	20	374	2.5 ± 0.04
	Competitive income	231 (64.3)	128 (35.6)	359	15	374	2.5 ± 0.09
	Employment duration	182 (50.2)	180 (49.7)	362	20	374	2.91 ± 0.08
	Job satisfaction	249 (70.3)	105 (29.6)	354	20	374	2.4 ± 0.057
	Job security	216 (59.1)	150 (41.1)	365	8	374	2.7 ± 0.07
	Work hours	215 (63.7)	122(36.2)	337	37	374	2.6 ± 0.04
	Work life balance	164 (45.3)	198 (54.6)	362	12	374	3.3± 0.06
	Work load	166 (48.5)	176 (51.4)	342	32	374	3.1 ± 0.04
Family and social life	Children's educational opportunity	270 (77.5)	78 (22.4)	348	40	374	2.2 ± 0.03
	Family demand to settle in the West	200 (57.1)	150 (42.8)	350	24	374	2.8 ± 0.05
	Proximity to parents/family	140 (41.9)	194 (58)	334	40	374	3.3 ± 0.03
	Social environment	150 (42)	208 (58)	358	16	374	3.2 ± 0.06
	Spouse employment opportunities	146 (42.8)	195 (57.1)	341	31	374	3.3 ± 0.06
Cost and quality living	Cost of living	203 (60.7)	131 (39.2)	334	40	374	2.7 ± 0.4
	Expenses and taxes (VAT)	229 (68.9)	103 (31.1)	332	42	374	2.5 ± 0.06
	Multicultural environment	135 (36.4)	235 (63.5)	370	4	374	3.3 ± 0.05
	Peer pressure	148 (46.1)	173 (53.8)	321	53	374	3.1 ± 0.06
	Personal and family safety	130 (38.9)	204 (61)	334	40	374	3.3 ± 0.04
	Political stability	113 (30.5)	257 (69.4)	370	4	374	3.6 ± 0.06
	Quality of life	95 (29.4)	228 (70.5)	323	51	374	3.6 ± 0.05
Health care and regulations	Health licensing and credentialing	141 (44.9)	173 (55)	314	60	374	3.1 ± 0.07
	Immigration and 10-year visa policy for professionals	68 (19.7)	276 (80.2)	344	30	374	2.6 ± 0.09
	Labor laws and ease of changing jobs	220 (62.8)	130 (37.1)	350	24	374	3.7 ± 0.05

TABLE 3 Gender differences in physician responses

Domain	Items	Gender	Very Likely/ Likely to Migrate, n (%)	Very Unlikely/ Unlikely to Migrate, n (%)	Cumulative Responses	p Value
Work and career	Career advancement	Male	125 (69)	57 (31)	182	NS
		Female	125 (73)	47 (27)	172	
	Competitive income	Male	141 (76)	48 (24)	189	0
		Female	90 (51)	80 (49)	170	
	Employment duration	Male	82 (44)	103 (56)	185	NS
		Female	100 (56)	77 (44)	177	
	Job satisfaction	Male	127 (70)	55 (30)	182	.002
		Female	122 (71)	50 (29)	172	
	Job security	Male	105 (56)	84 (44)	189	NS
		Female	111 (63)	66 (37)	177	
	Work hours	Male	105 (62)	64 (38)	169	NS
		Female	110 (65)	58 (35)	168	
Family and social life	Work life balance	Male	72 (40)	109 (60)	181	0
		Female	92 (51)	89 (49)	181	
	Work load	Male	76 (43)	101 (57)	177	NS
		Female	90 (55)	75 (45)	165	
	Children's educational opportunity	Male	142 (75)	47 (25)	189	0
		Female	128 (81)	31 (19)	159	
	Family demand to settle in the West	Male	107 (58)	78 (42)	185	0
		Female	93 (56)	72 (44)	165	
	Proximity to parents/family	Male	64 (36)	112 (64)	176	0
		Female	76 (48)	82 (52)	158	
	Social environment	Male	67 (36)	118 (64)	185	.008
		Female	83 (48)	90 (52)	173	
	Spouse employment opportunities	Male	70 (42)	96 (58)	166	.003
		Female	76 (43)	99 (57)	175	
Cost and quality living	Cost of living	Male	117 (66)	60(34)	177	NS
		Female	86 (55)	71 (45)	157	
	Expenses and taxes (VAT)	Male	126 (71)	51 (29)	177	NS
		Female	103 (66)	52 (34)	155	
	Multicultural environment	Male	68 (35)	125 (65)	193	0
		Female	67 (38)	110 (62)	177	
	Peer pressure	Male	72 (44)	90 (56)	162	.048
		Female	76 (48)	83 (52)	159	
	Personal and family safety	Male	77 (45)	96 (55)	173	NS
		Female	53(33)	108 (67)	161	
	Political stability	Male	55 (28)	138 (72)	193	NS
		Female	58 (33)	119 (67)	177	
Health care regulation	Quality of life	Male	36 (21)	133 (79)	169	.004
		Female	59 (38)	95 (62)	154	
	Health Licensing and credentialing	Male	80 (48)	85 (52)	165	NS
		Female	61 (41)	88 (59)	149	
	Immigration and 10-year visa policy for professionals	Male	43 (25)	139 (75)	182	.05
		Female	25 (24)	137 (76)	177	
	Labor laws and ease of changing jobs	Male	103(57)	78 (43)	181	NS
		Female	117 (69)	52 (31)	177	

felt that their income was an important factor in deciding to remain in the UAE. Physician retention was mostly influenced by lifestyle-related factors, primarily quality of life, work-life balance, multicultural environment, proximity to extended family, political stability, and personal and family safety. Our data are consistent with other studies that

have not shown monetary incentives to be an important motivator for worker retention.^{29,30} The literature suggests that although income is an important factor in recruitment and short-term retention, nonfinancial factors related to working and living conditions have greater influence on decisions related to duration of stay and, thereby, affect longer-term retention.^{29,30}

It should be reassuring to policy makers that 80% of physician respondents felt that the UAE's new 10-year visa policy would be an important factor influencing their decision to remain in the country. Multiple studies have noted security of tenure to be an important factor informing migration decisions. In Senegal, recruitment and retention were both improved for health care workers given a permanent contract, even if the workplace was in a rural area.³¹ Another study in Lebanon found that attrition rates were significantly decreased when employees had the job security of a full-time contract.³²

Our study is not without limitations. First, responses reflect perceptions, which may differ from actual factors influencing migration or retention decisions. Also, the study does not address the perceptions of recruitment of new physicians or factors influencing the outward migration of physicians who have left the UAE health system. Finally, inherent to any self-report of complex issues, such as immigration, are influencing factors that may not have been fully addressed in this study, such as workplace culture, social support, or physician individual personality. Notwithstanding these limitations, our results provide an important view into expatriate physician perceptions of factors influencing immigration decisions.

5 | CONCLUSION

In recent years, the UAE has made considerable investment in the expansion and improvement of its health care system. Factors influencing retention of the country's mainly expatriate physician workforce are primarily lifestyle-related. Physicians also report positive perceptions of newly implemented visa policies. Future studies should measure the long-term influence of these health system reforms on physician retention, as well as their impact on health care quality and patient outcomes.

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

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REFERENCES

1. Anand S, Barnighausen T. Health workers and vaccination coverage in developing countries: an econometric analysis. *Lancet*. 2007;369(9569):1277-1285.
2. Liu JX, Goryakin Y, Maeda A, Bruckner T, Scheffler R. Global health workforce labor market projections for 2030. *Hum Resour Health*. 2017;15(1):11.

3. World Health Organization (WHO). The 2018 update, Global Health Workforce Statistics, World Health Organization. Geneva: WHO; 2018. <https://www.who.int/gho/en/>. Accessed 15 April 2019.
4. Clemens MA, Pettersson G. New data on African health professionals abroad. *Hum Resour Health*. 2008;6(1):1.
5. Kirigia J, Gbary A, Muthuri L, Nyoni J, Seddoh A. The cost of health professionals' brain drain in Kenya. *BMC Health Serv Res*. 2006;6(1):89.
6. Aluttis C, Tewabech B, Frank MW. The workforce for health in a globalized context-global shortages and international migration. *Glob Health Action*. 2014;7(1):23611.
7. Waldman JD, Kelly F, Aurora S, Smith HL. The shocking cost of turnover in healthcare. *Health Care Manage R*. 2004;29(1):2-7.
8. Abdel-Razig S, Alameri H. Restructuring graduate medical education to meet the health care needs of Emirati citizens. *J Grad Med Educ*. 2013;5(2):195-200.
9. Mosaad AT, Younes MZ. Health policies and intervention strategies: a description of current issues and approaches to care of the public health and health care system in the United Arab emirates. *J Health Care Finance*. 2014;40(3):86-100.
10. Koomneef E, Robben P, Blair I. Progress and outcomes of health systems reform in the United Arab Emirates: a systematic review. *BMC Health Serv Res*. 2017;17:672.
11. Cantrill JA, Sibbald B, Buetow S. The Delphi and nominal group techniques in health services research. *Int J Pharm Pract*. 1996;4(2):67-74.
12. Lynn MR. Determination and quantification of content validity. *Nurs Res*. 1986;35(6):382-385.
13. Liu RX, Kuang J, Gong Q, Hou XL. Principal component regression analysis with SPSS. *Comput Methods Programs Biomed*. 2003;71(2):141-147.
14. Parsian N, Dunning T. Developing and validating a questionnaire to measure spirituality: a psychometric process. *Global J Health Sci*. 2009;1(1):1-11.
15. MedCalc. Available from: www.medcalc.org. Accessed April 18, 2019.
16. Sullivan GM, Artino AR. Analyzing and interpreting data from likert-type scales. *J Grad Med Educ*. 2013;5(4):541-542.
17. UAE Government. Abu Dhabi Healthcare Strategic Plan. Updated December 2018. <https://government.ae/en/about-the-uae/strategies-initiatives-and-awards/local-governments-strategies-and-plans/abu-dhabi-healthcare-strategic-plan>. Accessed 19 April 2019.
18. Gulf News. Khalifa University to open Abu Dhabi's first medical school. July 2018. <https://gulfnews.com/uae/education/khalifa-university-to-open-abu-dhabis-first-medical-school-1.2246741>. Accessed 19 April 2019.
19. Ibrahim H, Al Tatari H, Holmboe ES. The transition to competency-based pediatric training in the United Arab Emirates. *BMC Med Educ*. 2015 Apr 1;15(1):65.
20. Kumar K, Roberts C, Thistlethwaite J. Entering and navigating academic medicine: academic clinician-educators' experiences. *Med Educ*. 2011;45(5):497-503.
21. Ibrahim H, Stadler D, Archuleta S, et al. Clinician-educators in emerging graduate medical education systems: description, roles and perceptions. *Postgrad Med J*. 2016;92(1083):14-20.
22. Stadler DJ, Archuleta S, Ibrahim H, Shah NG, Al-Mohammed AA, Cofrancesco J Jr. Gender and international clinician educators. *Postgrad Med J*. 2017 Dec;93(1106):719-724.
23. Bidwell P, Humphries N, Dicker P, Thomas S, Normand C, Brugha R. The national and international implications of a decade of doctor migration in the Irish context. *Health Policy (New York)*. 2013;110(1):29-38.
24. Medical Council of Ireland. Medical Workforce Intelligence Report. Medical Council of Ireland, Dublin; 2016. <https://www.medicalcouncil.ie/News-and-Publications/Reports/Medical-Workforce-Intelligence-Report-2016-.html>. Accessed 19 April 2019.
25. US-UAE Business Council. The UAE Healthcare Sector. Washington, DC: US-UAE Business Council; 2013. http://usuaebusiness.org/wp-content/uploads/2015/09/HealthcareReport_Update_June2014.pdf. Accessed 19 April 2019.
26. Joint Commission International. JCI-Accredited Organizations. <https://www.jointcommissioninternational.org/about-jci/jci-accredited-organizations/?c=United%20Arab%20Emirates&a=Hospital%20Program>. Accessed 19 April 2019.
27. UAE Government. Long term residence visas in the UAE. <https://government.ae/en/information-and-services/visa-and-emirates-id/residence-visa/long-term-residence-visas-in-the-uae>. Accessed 30 April 2019.
28. Braithwaite J, Matsuyama Y, Mannion R, Johnson J, Bates DW, Hughes C. How to do better health reform: a snapshot of change and improvement initiatives in the health systems of 30 countries. *Int J Qual Heal Care*. 2016;28:843-846.
29. Barnighausen T, Bloom D. Financial incentives for return of service in underserved areas: a systematic review. *BMC Health Serv Res*. 2009;9(1):86.

30. Pathman DE, Konrad TR, King TS, Taylor DH Jr, Koch GG. Outcomes of states' scholarship, loan repayment, and related programs for physicians. *Med Care*. 2004;42(6):560-568.
31. Nagai M, Fujita N, Diouf IS, Salla M. Retention of qualified healthcare workers in rural Senegal: lessons learned from a qualitative study. *Rural Remote Health*. 2017;17(3):4149.
32. Alameddine M, Saleh S, El-Jardali F, Dimassi H, Mourad Y. The retention of health human resources in primary healthcare centers in Lebanon: a national survey. *BMC Health Serv Res*. 2012;12(1):419.

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