

Original Article

Home or abroad? Exploring medical students' attitudes towards studying and working overseas

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Abstract

Background & Objective: Cross-border medical student mobility and doctor migration have become global trends. The aim of this study was to explore Malaysian medical students' attitudes towards studying and working overseas.

Materials & Methods: A cross-sectional study was conducted among medical students of the academic year 2018–2019 from University Kuala Lumpur, Royal College of Medicine Perak, using a self-administered validated questionnaire that explored their opinions related to encouraging and deterring factors of studying and working overseas and their preferred destination for migration. All 569 students from years 1 to 5 were invited, and 505 completed responses were analyzed.

Results: Financial factors were rated as most relevant for not studying overseas by 81.6% of the respondents, whereas language barriers and racial discrimination were considered less relevant. Doing electives overseas was favored by 68.9%. Regarding the benefits of further study abroad, learning international standards and experiencing diversity are rated as “very important” by 75.4% and 62.7%, respectively. They rated better earning (63.2%) and further learning (30.7%) as the most relevant reasons for doctors working overseas, and family commitment (49.9%), Medical Licensing Examinations (MLE) (38.4%), and loyalty to their home country (34.7%) for not working overseas. Their most preferred foreign destinations for further study and working are the UK, Ireland, and Australia.

Conclusion: While appreciating the advantages of further study abroad, MLE was considered one of the deterring factors. As a result, consideration should be given to making changes to existing curricula to align with the expected standards of the destined countries.

Keywords: attitude, medical students, malaysian, studying overseas, working abroad

Introduction

The objectives of internationalization in medical education can be achieved through institutional partnerships, internationalization at home, and student mobility programs (1). However, students from developing countries who are from privileged backgrounds or who earned government funds or international scholarships are likely to study medicine overseas, mostly in western universities, and this trend could be seen as a part of globalization in medical education. This may also open the doors to better career opportunities and new citizenship for them.

Studying medicine overseas

The most visible aspect of international trade is foreign students, or more precisely, the global flow of students from third-world countries to industrialized countries (2). Awareness level, cultural factors, and financial ability are identified as influencing factors in studying abroad among university students (3). Two specific factors that contributed to international trade in the sphere of medical education are places (quotas) in medical schools and the availability of government funding (2). The most common reasons for studying medicine overseas are to experience different cultures, to



meet new people, to enhance career prospects, to get international contacts, to gain independence, and to have better educational facilities (2). A qualitative analysis also identified “to experience adventure” and “to promote their autonomy and personal development” as the key motivational factors for students studying abroad (4). Medical students cross-border mobility may open opportunities beyond the scope of educational advantages. The findings of two case studies on intra-Asian educational mobility indicate that student cross-border movement aids medical migrants in achieving legal citizenship and its relationship with the broader concept of global citizenship, in which cultural and political contexts are emphasized (5).

On the other hand, electives abroad are an established trend among medical students. International Health Electives (IHE) have positive effects on participants' clinical skills, certain attitudes, and knowledge of tropical medicine and are associated with choosing careers in primary care facilities and in underserved communities (6, 7). The most important motivation factors to do electives overseas identified in multinational, multi-continental global educational exchange research are expanding in medical training, enhancement of curriculum vitae, and broadening of research opportunities (8). While the anticipated and proven benefits of IHE are highlighted, some drawbacks perceived by students and the host community have been overlooked. An in-depth analysis explored the difficulties the students faced during elective rotation in low-income countries; therefore, the importance of pre-departure addressing of possible issues and debriefing on return is highlighted (9).

Seeking medical career abroad: Malaysia scenario

The globalization of medicine is also manifested by the migration of doctors, either for further study or well-deserved job opportunities. In fact, medical doctors from Southeast Asian nations are attracted by higher salaries, better career prospects, and more favorable work environments in higher-income countries (10), and Malaysian medical doctors contributed 0.3% of international medical graduates working in Australia (11) and many acquired residency status (12).

The first medical school in Malaysia was founded in 1963 (13). By 2008, there were 21 public and private medical schools offering 5-year undergraduate medical programs, and the number rapidly grew to 32—11 public schools and 21 private schools—in less than a decade. This must likely be due to attempting to conform to the WHO standard of a developed nation, 1 doctor to 400 people (14).

While there is a definite concern related to the quality of medical graduates, how to accommodate these graduates in training hospitals for their internships followed by further specialty training and subsequent employment without undue delay is a genuine issue that needs to be addressed.

Hence, it would be of value to know our students' views on studying and working overseas. It is important to understand our students' standpoints on their personal interests in medical globalization.

Therefore in our study, which aimed to evaluate medical students and medical educators' outlook on international medical education, one of the objectives was to explore students' perceptions of studying and working overseas, and the findings are presented and discussed in this article.

Materials & Methods

Design and setting(s)

This cross-sectional study was conducted at the University Kuala Lumpur royal college of medicine perak (UniKL RCMP) involving Bachelor of Medicine and Bachelor of Surgery (MBBS) students from year 1 to year 5 of one academic year (2018-2019) during the period between September 1, 2018, and August 30, 2019 after obtaining approval from the UniKL RCMP research ethical committee (UniKL RCMP/MREC/2018/012).

Participants and sampling

The required sample size was calculated at 384 by using the Open-Epi Calculator based on the response rate of a similar study (15), giving an expected response rate of 50% with 95% confidence. Therefore, we distributed the research questionnaire attached to an invitation letter to all 569 students from that academic year without setting exclusion and inclusion criteria. A total of 529 completed questionnaires were returned to us.

Tools/Instruments

A self-administered questionnaire, written in English, was used. That consisted of 30 items, of which five were to collect their personal data, 17 were to assess their perceptions towards IoME, and the rest were to explore their views on studying and working abroad. The questions were prepared by the research team, which included medical lecturers, one medical educationist, and the top administrators of our medical institution after getting opinions from some medical lecturers and a few medical students, including an international student. As our aim is to explore the general outlook on globalization in medicine, we put the statement “This study is to find out students' views on the globalization of medicine in

general and is not confined to the RCMP position" on the questionnaire. The questionnaire has a mixture of Likert scale items, closed and open-ended items, structured items for single answers, and structured items opened for multiple answers, with their relevance in order to be selected from pre-determined options, including the "others" option, where students could offer their views. Face validity was assessed by a pilot study conducted among ten students for understandability and no ambiguity. The concurrent validity and internal consistency of the items were evaluated. The items with a Cronbach's alpha value greater than 0.70 were selected for the analysis.

Data collection methods

The students were invited to participate after providing valid information regarding this research and ensuring the confidentiality of their identities. The willing participants had to sign a consent form.

We collected the data in hard copy, which was attached to the invitation letter and research consent form. The questionnaires were distributed and collected from all year 1 and year 2 students after their module examinations, and for clinical year students, through the individual group leaders as they were rotating in smaller groups in different postings.

Data analysis

Out of 529 returned questionnaires, 505 were included in our analysis; therefore, the response rate was 88.75%. The rest were excluded because of a missing response in one or more of the 11 items that were designed to explore students' attitudes towards studying and working overseas. The data was descriptively analyzed, comparing the frequency and percentage of the outcome variables, using IBM SPSS statistics software version 23.

Results

There were a total of 569 students eligible for our study: 150, 101, 90, 96, and 132 from years 1 to 5, respectively. Among the returned forms, 505 forms with completed responses were included in our analysis; therefore, the response rate was 88.75%.

The female and male ratio of 2:1 among our respondents reflected the actual gender distribution of medical students from UniKL RCMP. Similarly, a balanced representation was observed from academic year 1 to year 5. Most of the respondents (82.6%) reported that their parents had no experience working outside their homeland. Among those parents who had overseas experience, more than half of them worked in a single country, and for less than three years (Table 1).

Table 1. Demography of the participants

Variables		N	%	
Gender	Female	339	67.12	
	Male	166	32.88	
Academic year	Year 1	141	27.92	
	Year 2	87	17.22	
	Year 3	90	17.82	
	Year 4	78	15.45	
	Year 5	109	21.58	
Parents' experience of working outside home country	No experience	417	82.57	
	Number of countries	Employment in one country	51	10.09
		Employment in two countries	21	4.16
		Employment in three or more countries	16	3.17
	Length of oversea employment	No	417	82.57
		<3 years	50	9.90
		3-5 years	24	4.75
More than 5 years		14	2.77	

Abbreviation: N, number of participants

We presented data from our analysis of 11 items that were related to students' attitudes towards studying and working overseas in this article.

Regarding the reasons why students do not study overseas, the vast majority (81.6%) rated financial reasons as most relevant. Family decision was also an important factor in not studying overseas, as 20.6% of participants rated it as most relevant and 23% rated it as very relevant. The largest proportion consider the language barrier (23%) and different educational

standards (23%) not relevant. Racial discrimination was rated as a less relevant reason by 41.2% and not relevant by 25.7% (Table 2).

Among the respondents, 73.5% intended to go elective overseas, and 68.9% agreed with the statement "doing elective overseas should be encouraged." The financial reason was given by 49.25% of the respondents who did not intend to do elective overtime (Table 3).

As shown in Table 4, most of our participants rated learning international standards (75.4%), experiencing

diversity (62.7%), and getting better training (41%), as very important benefits of further study abroad. Similarly, the combined rating of “very important” and “important” with regards to benefits of “better job opportunities” was about 75%. Nearly 40% considered better career opportunities an important benefit, and 34.5% thought better living standards were less important. Our respondents rated better earning (63.2%) and further learning (30.7%) as most relevant with regards to possible reasons for doctors working overseas while they rated family commitment (49.9%), licensing examinations (38.4%), and loyalty to their home country (34.7%) for not working overseas. (Table 5)

Not all, but 293 (58.0%) and 237 (46.9%) students gave their country of choice for further study and working abroad respectively. As shown in Table 6, the United Kingdom is the most preferred country for both postgraduate study and working. Australia, Japan, and Ireland are also selected for both purposes in different order of preference.

Among the 503 responding students, 48.5% had good knowledge and 18.4% had fair knowledge of government sponsorship for studying overseas. The statement “undergraduate and postgraduate students receive enough support for studying overseas” was agreed upon by 35.38%, disagreed with by 23.26%, and 41.35% stood neutral.

Table 2. Respondents' opinion on why students do not study oversea (Number = 505)

Reasons	Most relevant N (%)	Very relevant N (%)	Relevant N (%)	Somehow relevant N (%)	Less relevant N (%)	Not relevant N (%)
Financial reason	412 (81.58)	43 (8.51)	14 (2.77)	10 (1.98)	7 (1.39)	19 (3.76)
Language barrier	51 (10.09)	76(15.04)	96 (19.01)	110 (21.78)	56 (11.09)	116 (22.97)
Different educational standards	76 (15.04)	92 (18.21)	98 (19.41)	98 (19.41)	25 (4.95)	116 (22.97)
Family decision	104 (20.59)	116 (22.97)	95 (18.81)	64 (12.67)	42 (8.32)	84 (16.63)
Racial discrimination	37 (7.33)	22 (4.36)	58 (11.49)	50 (9.90)	208 (41.18)	130 (25.74)
Others	Responded by 29 (5.74%) (No scholarship, no interest, plan to work locally, no offer from oversea universities, different pattern of diseases oversea, better, or same educational standard in home country, competition, islamophobia)					

Abbreviation: N, number of participants

Table 3. Reason given for no intention to do elective oversea (Number = 134)

Reasons	N (%)
Financial reason	66 (49.25)
Comfortable locally/ Do not want to be far away from the family	15 (11.19)
To have exposure to local diseases/ practice/ health care system	14 (10.45)
Plan to work locally	7 (5.22)
Different pattern of diseases overseas	6 (4.48)
Others ,Local or oversea the same (1) Language barrier(1), no interest (3), Family decision (3)	8 (5.97)
No reason given	18 (13.43)

Abbreviation: N, number of participants

Table 4. Respondents' rating on benefits of further study abroad (Number = 505)

Reasons	Very important N (%)	Important N (%)	Less important N (%)	Not important N (%)
Better Training	207 (40.99)	181 (35.84)	54 (10.69)	63 (12.47)
Learn international standards	381 (75.45)	87 (17.23)	9 (1.82)	28 (5.54)
Better job opportunities	176(34.85)	201 (39.80)	60 (11.88)	68 (13.47)
Experience cultural diversity	317 (62.77)	119 (23.56)	53 (10.50)	16 (3.17)
Better living standards	89 (17.62)	114 (22.27)	174 (34.46)	98 (19.41)
Others	Know more people, socialize, networking, travel opportunity, more financial support			496 (98.22)
				9 (1.78)

Abbreviation: N, number of participants

Table 5. Respondent's rating on possible reasons for medical doctors working or not working overseas (Number = 505)

Reasons	Most relevant	Very relevant	Relevant	Somehow relevant	Less relevant	Not relevant
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
For working overseas						
Better earning	319 (63.17)	72 (14.26)	54 (10.69)	20 (3.96)	17 (3.37)	23 (4.55)
Well-deserved position	60 (11.88)	70 (13.86)	72 (14.26)	102 (20.20)	116 (22.97)	85 (16.83)
Better living standard	112 (22.18)	95 (18.81)	81 (16.04)	102 (20.20)	67 (13.27)	48 (9.50)
Experience diversity	132 (26.14)	61 (12.08)	86 (17.03)	76 (15.05)	106 (21.00)	44 (8.71)
Further learning	155 (30.69)	78 (15.45)	93 (18.42)	76 (15.05)	64 (12.67)	39 (7.72)

Others	5 (0.99) responded (Five other responses: Job opportunity, better quality of life, volunteer work, more welcoming, no excessive workload)					500 (99.01)
Not working overseas						
Licensing exams	194 (38.42)	86 (17.02)	103 (20.40)	52 (10.30)	33 (6.53)	37 (7.33)
Language Barrier	66 (13.07)	50 (9.90)	97 (19.21)	143 (28.31)	82 (16.23)	67 (13.27)
Loyalty to home country	175 (34.65)	84 (16.63)	88 (17.43)	63 (12.48)	64 (12.67)	31(6.14)
Family commitments	252 (49.90)	131(25.94)	54 (10.69)	33 (6.53)	13 (2.57)	22 (4.36)
Restricted mindset	52 (10.30)	32 (6.33)	59 (11.68)	95 (18.81)	183 (36.24)	84 (16.63)
Other reasons	8 (1.58) responded (financial, qualification, live in comfort zone, local more practical, medical knowledge, prohibition by parents, safety, tiresome settling in first few years)					497 (98.42)

Abbreviation: N, number of participants

Table 6. Comparison of students' top five countries of choice for further study abroad and working overseas

Preferred country for further study (Response number=293)			Preferred country for working (Response number=237)	
Country	N (%)		Country	N (%)
1. U K	66 (22.52)		1. U K	71 (29.96)
2. Ireland	52 (17.75)		2. Australia	33 (13.92)
3. Australia	34 (11.60)		3. Japan	22 (9.28)
4. Japan	24 (8.19)		4. US	17 (7.17)
5. India	23 (7.85)		5. Ireland	16 (6.75)

Abbreviation: N, number of participants

Discussion

The benefits of further study abroad were well appreciated by our students, who expected to learn international standards and experience diversity. Our students considered financial reasons the most relevant for students not studying overseas, while language barriers and racial discrimination were regarded as insignificant. They viewed better earnings and further learning as encouraging factors for doctors working overseas, and family commitment, medical licensing examinations, and loyalty to their home country as deterring factors.

As of 2016, there were five million students studying outside their home country, and that number was projected to increase to eight million by 2025 (16). Malaysia has been recognized as a learning hub for international students, and it has active inbound and outbound mobility well ahead of other Southeast Asian nations (16, 17).

It is good to learn that a larger proportion of our students have some knowledge of government sponsorships for overseas study. However, the majority still thought that the support was not enough for both undergraduate and postgraduate students. In fact, financial factors are commonly and significantly related to students' intention of overseas study despite their socio-economic status, as reported in the literature (4, 18). On the contrary, Taiwanese students listed scholarship and financial support as less significant factors related to readiness for overseas study after listing adaptability, selected major,

and language in the destination as more significant (19). Therefore, the students must be well informed about global scholarship schemes, and it is imperative to consider providing sponsorship or assisting students with good potential in securing international scholarships. It is explicable that the respondents did not consider living standards as an important determining factor for overseas study. Among 28 Asian countries, Malaysia, being an upper middle-income country, ranked eighth in the life satisfaction index determined by marital status, the role of government, employment, and the standard of living (20).

Most of our respondents exhibited their positive outlook by responding that language barriers and racial discrimination are not significant factors in making decisions to study in foreign countries. This is quite contrary to the previous findings that language is the most common barrier to social interaction and academic progress (21, 22) among Malaysian students who have good English proficiency either in native English-speaking countries or non-English-speaking countries (23).

The findings of a New Zealand study suggested that International Medical Students (IMG) are experiencing lower social and environmental quality of life compared with domestic peers, which likely has an impact on their academic achievement, feelings of wellness, acculturation, and social adaptation (24). Among higher education Malaysian students in the UK, Malay participants experienced poorer sociocultural adjustment

in comparison with their Chinese counterparts: less likely to have contact with co-nationals and host nationals, more likely to perceive their actual experience in Britain as worse than they had expected, and more likely to perceive greater cultural distance and greater discrimination (25). The discrimination against international students might not be solely due to racial, cultural, or religious differences. The results of a qualitative analysis suggested that although Malaysia and South Korea share similar East Asian practices, Chinese-Malaysian students experienced significant negative experiences, including discrimination based on their place of origin, cultural characteristics and social behaviors, and special background and status as non-traditional students (26).

Most respondents supported the idea of doing electives overseas and wished for it. The students generally have a positive outlook towards international health electives, with an appreciation of academic and non-academic benefits, and they perceive their experience as rewarding and beyond expectation (27–29).

Regarding the benefits of doing postgraduate studies in foreign countries, our students expressed learning international standards, experiencing cultural diversity, and better job opportunities as the most relevant and important factors, whereas a better living standard was a less significant factor. The students' perspective on international standards can be different from the view of governing bodies, universities, or educators. As "global standard" is generally decoded as international recognition or accreditation of a degree, our respondents seem to be aware of the importance of international recognition of any degree they earn. Moreover, our respondents acknowledged the fact that studying overseas would open the door for more interracial and intercultural contact. Based on students' experiences from two U.S. medical schools, diversity enhances classroom dynamics in terms of classroom discussions, greater understanding of the subjects, serious discussions of alternative viewpoints, and a broader range of discussions by peers and professors using more examples (30).

Talking about medical doctors working overseas, better earning (31–33) and further learning (31–32) seem to be motivational factors for immigrating to developed countries, as rationalized by our respondents and as reported before by early-career doctors and senior medical students (33–35). Better living conditions and improved quality of life are also listed as pull factors for migration (31–35). It is also interesting to note that

additional health aid and a higher GDP per capita are both associated with lower emigration for nurses and doctors among OECD countries. Besides, the paper's findings imply that foreign assistance that is targeted at improving health infrastructure can help mitigate medical brain drain (36).

While family commitment was justified as one of the important reasons preventing medical doctor emigration by the study participants, there is no such literature available to debate on this issue except a finding from a Nigerian study that linked single status and the intention to migrate (35). However, the importance of family influence seems undeniable in maintaining the work-life balance among locally working Malaysian doctors. Family involvement, parental demand, and spouse support play a role in work-family conflict among medical doctors in Malaysian public hospitals (37). Besides, work-family conflict is the significant mediator in both the role ambiguity-turnover intention relationship and the role conflict-turnover intention relationship (38). Similarly, family tie is the single most deterrent factor among Nigerian resident doctor migration (32).

The results of a study from neighboring Vietnam indicate that medical doctors' satisfaction is directly linked to loyalty in public health services, and the main influential factors are income, relationships with colleagues, quality of medical examination and treatment, hospital resources, autonomy at work, training, and promotion opportunities (39).

As our respondents appreciated, medical licensing examinations are the implicit barrier to medical doctor mobility. These time-consuming, labor- and resource-intensive steps are considered wasteful of talent and productivity (40). Once in the United States, more stringent requirements were imposed for migrant physician licensure compared to locals (41). Therefore, some IMGs may choose countries like Germany as transit countries before embarking on other European countries because it imposes fewer licensing requirements (42). Nevertheless, IMGs from Singapore, Malaysia, and Myanmar perform better in Australian medical council licensing theory and clinical examinations than other candidates (43).

Where are medical graduates heading for their postgraduate studies and overseas employment?

The UK was the most preferred country among our respondents for further studies, while it was second to Canada among Nigerian graduates (35) for their postgraduate training. It seems the US and the UK are the top destinations for medical doctors from Nigeria (32)

and OECD countries (44). Australia, Japan, and Ireland are in the top five for both further study and employment among our respondents. Essentially, Malaysia ranked third and fifth among the source countries, respectively, of permanent and temporary migrant health professions working in Australia between 2005 and 2010 (12). There is no available data to date with regards to academic relations in the medical field between Japan and Malaysia. However, Japan has a long tradition of sponsoring postgraduate medical studies, mostly via research collaboration, and it is not uncommon to see medical literature coauthored by Japanese and international scholars. It is not surprising to see our respondents have an interest in Ireland as their destination country because the RCSI offshore campus, which was founded in 1996, has become one of the most well-known private universities in Malaysia. That is also the reason why Malaysian medical students choose to study at the main campus in Ireland.

In this study, we did not include any questions to explore their intention for further study abroad, overseas employment, or permanent migration. There is a query, though. Are international medical graduates coming home? In a study (2004), Malaysian medical students who studied abroad shared their concerns about working at home, and they did not feel well prepared for their return. They felt they were inferior in practical and cross-cultural communication skills to their Malaysian-trained counterparts. They also expressed uneasiness about working long hours and shouldering responsibilities for unfamiliar tasks with minimal supervision (45). Therefore, arrangements must be in place for the returners that include the first placement in tertiary centers instead of district postings, the assignment of mentors, well-supervised and structured hands-on skills, and other necessary skill development. Besides, Malaysian students from international schools should be encouraged to do electives at home so that they learn what is expected of them at an early stage.

Conclusion

Our respondents rightly appreciated the benefits of studying medicine overseas and supported the idea of doing electives overseas. They acknowledged the importance of international recognition of a medical degree and interracial or intercultural experience that will lead to more job opportunities. They rationalized better earning and further learning as persuading factors and family commitment as a deterrent for medical doctors' emigration. They viewed medical licensing

examinations, but not language barriers or racial discrimination, as significant. The UK, Ireland, and Australia were the most popular places among our respondents for their further study and overseas employment. As Malaysia is a member state of the Commonwealth, it has a long tradition of medical migration to the UK and Australia. Therefore, consideration should be given to the question of whether adjustments are needed to our curriculum to be aligned with the destined countries to enable our graduates to overcome the barrier of medical licensing examinations.

Ethical considerations

This study was approved by the research ethical committee of UniKL RCMP (UniKL RCMP/MREC/2018/012). Informed consent was obtained from all participants.

Artificial intelligence utilization for article writing

The authors declare that no assistance from artificial intelligence was used in the manuscript writing of this article.

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Conflict of interest

The authors have no conflict of interest to declare.

Author contributions

All authors were involved in the conception and design of this study, research questionnaire development and validation, and data analysis. SOM prepared the draft paper. The other authors revised the paper for its intellectual content. All of them read and approved the final version of the manuscript.

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Data availability statement

Data used and analyzed in the study are available from the corresponding author upon request.

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