Original Article

Medical students' perceptions towards international students, lecturers, and curriculum: Study report from a Malaysian private medical college

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Abstract

Background & Objective: Developing a global mindset and cultural competency is an important component of Internationalization in Medical Education (IoME) to prepare graduates ready to serve in interconnected global communities. To understand students' attitude towards IoME, this study explored their perceptions of international students, lecturers, and curriculum.

Material & 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, Malaysia, using a self-administered validated questionnaire. All 569 students from years 1 to 5 were invited; out of 529 responses, 505 were eligible for analysis.

Results: The vast majority (85.1%) of the respondents agreed that all medical schools should have international students. The combined ratings of "comfortable" and "very comfortable" with international students as classmates, as friends, and with international lecturers were 62.6%, 70.3%, and 66.7%, respectively. The transnational curriculum was selected as most appropriate by 45%. Good perception towards IoME was exhibited by 52.2% and was significantly associated with students' intention to do elective overseas among female (P = 0.002) and year 3 (P = 0.038) subgroups. Their perception was positively linked with their perceived preparedness to study or work overseas among females (P = 0.004).

Conclusion: There is a positive association between the respondents' perceptions of IoME and their perceived readiness to study or work abroad more. Therefore, the design and implementation of curriculum should be in line with international standards to deliver both clinical and cultural competency that could be enhanced by race diversification among local students and having international students on campuses.

Keywords: internationalization, Malaysia, medical students, medical education, attitude, perception

Introduction

Global medical mobilization has become an established phenomenon. The importance of transnational collaboration in medical service delivery, biotechnology, and research activities has been highlighted during the COVID-19 pandemic. There are motivational factors and driving forces for medical professionals' migration, such as financial gains, training and research opportunities, and seeking a politically stable environment for professional growth and family prospects. Some medical schools from export countries have a mission to train doctors for local employment as well as for a global physician workforce.

Therefore, the internationalization component should be an essential part in standard medical school curricula to provide medical students with a full understanding of global, social, cultural, and ethical issues surrounding medical practice and research (1).

Internationalization in Medical Education (IoME) is best described as "the process of purposely integrating international, intercultural, or global dimensions into medical education in order to enhance its quality and

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prepare all graduates of professional practice in a globalized world" (2).

Implementation of internationalization in a medical program can be observed in three facets, i.e., curriculum, teaching, and learning (3). There may be differing views on how the elements should be integrated into an existing curriculum. The three main approaches applied in the US are institutional partnerships, international learning at home, and student mobility (4). Within partnership programs, US medical schools' partner with overseas programs mostly from low- and middle-income countries to deliver international elements. Some studies deliver global content or international courses at home through their own curriculum. Student mobility programs are usually outbound and include study abroad, medical service missions, clinical electives, and short-term rotations (4). The other available home elements are global educational content, international online students' conferences, small group peer-to-peer online work, and intercultural exchange at home (5-7). It is still challenging to develop a standardized curriculum that promotes degree compatibility for new generation medical graduates who could practice anywhere as global doctors due to intercountry variation in the health care system, medical training infrastructure, geographically determined disease patterns, and socio-economical-cultural background. Therefore, curriculum designers should adopt a broad and equitable interpretation of global health, taking graduate profiles with their cultural differences and values and changing local health care demands into consideration (8). International Service-Learning Trip (ISLT), even if short-term and regional, has proven to be beneficial for students' clinical skills development in history taking, physical examination, patient management, and communication via interpreter, as well as the growth of cultural competence such as perceiving their role in the health care system, interpersonal skills, and self-efficacy (9). Dental nursing and hygiene students expressed profound benefits of ISTL, such as internal motivation to serve underserved countries, bridging theory and practice gaps, bridging intercultural gaps and the urban-rural divide, and inter-professional learning and collaboration (10).

Malaysian medical programs use different types of curriculum, including foreign curriculum that is applied in collaboration with the international main campuses (3). It was recommended that medical schools, while designing and delivering medical curriculum, adhere to global standards in reference to the standards set by the World Federation for Medical Education (WFME), with some modification to suit the Malaysian context (11). In fact, the quality assurance mechanism for accreditation of medical programs and graduates is in place in Malaysia. Malaysian Qualifying Agency (MQA) is the main governing body responsible for accreditation of both public and private medical schools, as advised by a Joint Technical Committee comprising the Malaysian Medical Council, the Ministry of Higher Education, and the Public Services Department. The set of criteria, standards, and procedures formulated in 1998 was modified in accordance with the WFME format in 2000. The accreditation process that uses a rating scheme starts prior to course implementation to ensure WFME standards are met. The formal accreditation is conducted when the first batch of students is in their final year. Thereafter, the accreditation survey is done every 1, 3, or 5 years, depending on the length of accreditation given. To assess the quality of medical graduates, a rating system has been developed based on knowledge, basic procedural skills, interpersonal skills, personality/attitudes, discipline, continuing professional development, and leadership qualities. (12). According to a report, medical students perceived international accreditation positively with regards to quality education, opportunities, international standards, program structure, and patient care (13).

Open-mindedness is included as one of the essential attributes to help fulfill six ACGME core competencies throughout medical training, as all graduates are expected to treat patients regardless of their ethnicity, culture, religion, gender, age, lifestyle choices, or conduct (14). A global mindset is one of the prerequisites for the internationalization process in all industries, with no exception to the medical profession. IoME learning outcomes will only be achieved when a global mindset is well established among all players. From the students' perspective, it might mean providing their service beyond the boundaries of their locality, employment in any health care system, and seeking training opportunities abroad. Therefore, medical educators should make their students aware that they should be prepared to provide service to patients of different socio-economic backgrounds, giving respect to cultural differences, whether they intend to work locally or internationally, and also to be a part of collaborative research activities.

In the medical faculty of the University Kuala Lumpur Royal College of Medicine Perak (UniKL RCMP), 25% of lecturers are expatriates from six countries, whereas

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the number of international students is minimal. Thus, we carried out a broad study to explore the medical students' outlook on globalization in medicine, covering two aspects: 1. The internationalization of medical education; and 2. studying and working overseas. In this article, we present the findings of the first part, which is related to students' perceptions of international lecturers, students, and medical curricula.

Material & Methods

Design and setting(s)

This cross-sectional study was conducted at UniKL RCMP involving 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.

Participants and sampling

Based on the literature (15), a 50% response rate was expected; therefore, the calculated required sample size with 95% confidence was 384. We invited all students for that academic year, expecting to get responses from around 65% of the 569 eligible students.

Tools/Instruments

Our literature search yielded no validated questionnaire that matched the scope of our study. Therefore, the questions were constructed by the research team after obtaining opinions from some medical lecturers, one international and a few local students, one medical educator, and the administrators of our medical faculty. As our aim is to explore the general outlook rather than their experience, the statement "This study is to find out students' views on the globalization of medicine in general and is not confined to the UniKL RCMP position" was put at the top of the questionnaire. A self-administered questionnaire written in English consisted of 30 items, of which five focused on personal data, 17 related to their outlook on IoME, and the rest explored their views on studying and working abroad. 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 to be selected from pre-determined options, including the "others' option where students could offer their views. A brief description of different types of curriculum was given in the questionnaire for the students' understanding. Face validity was tested by a pilot study conducted among ten students for its understandability and lack of ambiguity. The concurrent validity and internal consistency of the items were tested. The items with a Cronbach's alpha value greater than 0.70 were selected for the analysis.

Data collection methods

We collected the data in a hard copy, which was attached to the invitation letter and research consent form. The questionnaire was distributed individually to all year 1 and year 2 students in the examination hall just after completing their module examinations, along with a module feedback form that students are required to fill out routinely. Some completed questionnaires were collected immediately, and some were returned to the assigned academic officer in charge later. For the clinical year students, who were rotating in different postings in small groups (15–20 students), the forms were distributed and collected through the students' group leader, who was usually responsible for communication among the peers and liaising with the academic office.

Data analysis

Out of 529 questionnaires collected, 505 completed forms were analyzed; therefore, the response rate was 88.75%. The exclusion in our analysis was due to the missing response in any of the main outcome variables, i.e., how comfortable they are with international students as classmates or friends and international lecturers, and their selection of the most appropriate curriculum.

The data was descriptively evaluated and then categorized into two groups, positive perception and negative perception, based on their scores derived from their responses to the six questions that we believed determined their general perception towards IoME.

The score can be between 1 and 5 for Likert scale items assessing how comfortable they are with international students as their friends and as their classmates, with international lecturers, and with their opinion on whether elective overseas study should be encouraged. For their response to the question of which curriculum they think is most appropriate, the scores given were 1, 2, 3, and 4 for their choice of local curriculum, imported curriculum from one foreign university, adapted from imported curriculum, and transnational curriculum, respectively. A score of 4 was given if the students agreed that all medical schools should have international students, and a zero for a negative response. Their score can be between 5 and 28. The median score of 19 was used to categorize the groups because the continuous data of the total perception score is skewed.

Data analysis was performed using IBM SPSS version 23 software. The chi-square test was used to find any

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association between their perception and demographic variables (academic year, gender, parent's experience of working or studying overseas, and duration of parents' employment overseas) and other outcome variables (intention to do elective overseas, perceived preparedness to further study or work overseas, and awareness of government sponsorship for overseas study), and the odds ratio was determined. An ANOVA test was used for subgroup analysis of two significant variables: gender and academic year, as we compare the mean perception scores of those subgroups.

Results

Female respondents outnumbered males, reflecting the actual gender distribution of UniKL RCMP MBBS students. Similarly, a balanced representation was observed from all academic years. Among them, 17.4% of the respondents have parents with overseas working experience, of which more than half worked in a single country and for less than three years (Table 1).

Table 1. Demographic data of participants

Characteristics			**Number (%)**
Gender		Female	339 (67.1)
		Male	166 (32.9)
Academic year		Year 1	141(27.9)
		Year 2	87(17.2)
		Year 3	90(17.8)
		Year 4	78 (15.4)
		Year 5	109(21.6)
Parents' working experience outside home country		No	41 (82.6)
		Yes	88 (17.4)
	Yes (n = 88*) — Number of countries	Employment in one country	51 (58.0)
		Employment in two countries	21(23.9)
		Employment in three or more countries	16 (18.2)
	Yes (n = 88*) — Length of oversea employment	< 3 years	50 (56.8)
		3-5 years	24 (27.3)
		More than 5 years	14 (15.9)

Note: Total number of students whose parents have working experience outside their home country

The vast majority (85.1%) of respondents agreed that all medical schools should have international students, and the rest (14.9%) did not agree to it. Among the listed benefits of having them, "improve English language proficiency" was agreed upon by 86.9% of respondents, followed by "improve students' competitiveness" (82.4%), "increase students' interest in studying or working overseas" (71.9%), "improve educational standards" (70.9%), and "improve university image" (60.8%) (Table 2).

While 41.8% of students responded that the attributes are not different between local students and international students. The majority of the group who thought attributes were different agreed that international students are better at communication skills (66.3%), social skills (57.8%), and have a broader mindset (77.9%) when compared to local students (Table 3).

The largest proportion of respondents rated "comfortable" with international students as class mates (43.8%) and as friends (50.3%), and also with international lecturers (48.9%) (Table 4).

Among 500 responses, transnational curriculum was selected as the most preferred one by 45%, followed by local curriculum by 29.6%, adapted curriculum by 18%, and imported curriculum by 7.4%.

The majority (73.5%) expressed their intention to do an elective overseas. The reasons listed for not intending overseas electives were financial constraints (49.3%), being comfortable near home (11.2%), and better exposure to local diseases and health care practices (10.5%).

The overall mean perception score was 18.65 ± 3.302, and it was comparable among subgroups of male and female students (18.78 ± 3.148 vs. 18.36 ± 3.594). Among the subgroups of academic year, the mean scores of year 2 students (19.45 ± 2.71) and year 5 students (19.26 ± 3.15) were significantly higher than those of other groups ($p < 0.01$).

Among the demographic variables, only the academic year was associated with their perception. ($p = 0.001$) (Table 5).

The good perception was positively associated with their intention to go elective overseas ($p < 0.001$) (Table 6),

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and the subgroup analysis showed the association was only significant among female students (p = 0.002) and among year 3 students (p = 0.038). The link between their own perception of preparedness to study or work overseas and their perception of IoME was highly significant (p < 0.001). Subgroup analysis showed that the association was significant among females (p = 0.004) and among year 1, year 2, and year 5 students. (p < 0.001, 0.021, and 0.048, respectively).

The students with a positive perception were two times more likely to consider doing electives overseas than those with a negative perception. (OR 2.015 with a 95% confidence interval of 1.347–3.015).

Table 2. Benefits of having international students (total number = 505)

Benefits	Yes (number %)	No (number %)
Increase university revenue	257 (50.9)	248 (49.1)
Improve university image	307 (60.8)	198 (39.2)
Improve education standards	358 (70.9)	147 (29.1)
Become more transparent	187 (37.0)	318 (63.0)
Improve lecturer performance	276 (54.7)	229 (45.3)
Improve student's competitiveness	416 (82.4)	89 (17.6)
Increase students' interest in studying/working overseas	363 (71.9)	142 (28.1)
Improve English language standard	439 (86.9)	66 (13.1)
Others	21 (4.2)	484 (95.8)

Table 3. Opinion on attributes of international students compared to local students (total number = 294)

Attributes	Number (%)
Better in academic performance	97 (33)
Better in communication skill	195 (66.33)
Better in social skill	170 (57.82)
Better in discipline	90 (30.61)
Have broader mindset	229 (77.89)
Others*	5 (1.70)

Note: Open to new things, exposure, outspoken, active learner, moral

Table 4. Rating of students on how comfortable they are with international students and international lecturers

	International students		International lecturers
	As class mates	As friends	
	Number (%)	Number (%)	Number (%)
Not at all comfortable	9 (1.8)	6 (1.2)	11 (2.2)
A little uncomfortable	1 (0.2)	2 (0.4)	18 (3.6)
Neutral	179 (35.4)	142 (28.1)	139 (27.5)
Comfortable	221 (43.8)	254 (50.3)	247 (48.9)
Very comfortable	95 (18.8)	101 (20.0)	90 (17.8)

Table 5. Association between students' perceptions and sociodemographic variables

Variables		Positive perception 264 (52.28%)	Negative perception 241 (47.72%)	Sig.
Academic year (N = 505)	Year 1	61 (43.3%)	80 (56.7%)	X^2 = 18.777 p < 0.001
	Year 2	59 (67.8%)	28 (32.2%)	
	Year 3	44 (48.9%)	46 (51.1%)	
	Year 4	34 (43.6%)	44 (56.4%)	
	Year 5	66 (60.6%)	43 (39.4%)	
Gender (N = 505)	Male	80 (48.2%)	86 (51.8%)	X^2 = 1.654 p = 0.198
	Female	184 (54.3%)	155 (45.7%)	
Parents' experience of working or studying oversea (N = 505)	Yes	46 (52.3%)	42(47.7%)	X^2 = 0.000 p = 0.999
	No	218(52.3%)	199(47.7%)	
Duration of parents' employment oversea (N = 88)	< / = 3 years	27 (54.0%)	23 (46.0%)	X^2 = 0.138 p = 0.710
	> 3 years	19 (50.0%)	19 (50.0%)	

Abbreviations: N, number of participants; Sig. significant, X^2, chi-square test; p, probability

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Table 6. Association between students' perceptions and their intention and perceived preparedness to study or work overseas

Variables		Positive perception 264 (52.2%)	Negative perception 241 (47.7%)	Sig.
Intention to go elective oversea (N = 505)	Yes	211 (79.9%)	160 (66.4%)	$X^2 = 11.84$ $p < 0.001$
	No	53 (20.1%)	81 (33.6%)	
How prepared to study or to work oversea (N = 505)	Totally unprepared	1 (0.4%)	11 (4.6%)	$X^2 = 18.73$ $p < 0.001$
	Unprepared	30 (11.4%)	28 (11.6%)	
	Not sure	145 (54.9%)	147 (61.0%)	
	Prepared	71 (26.9%)	51 (21.2%)	
	Totally prepared	17 (6.4%)	4 (1.7%)	
Knowledge on government sponsorship for oversea study (N=505)	No Knowledge	13 (4.9%)	16 (6.6%)	$X^2 = 3.63$ $p = 0.458$
	Little Knowledge	70 (26.5%)	68 (28.2%)	
	Fair Knowledge	127 (48.1%)	118 (49.0%)	
	Good Knowledge	45 (17.0%)	36 (14.9%)	
	Full Knowledge	9 (3.4%)	3 (1.2%)	

Abbreviations: N, number of participants; Sig, significant; X^2, chi-square test; p, probability

Discussion

The importance of an adapted approach in medical education has always been highlighted. The current approach in medical education should be towards nurturing doctors with societal and "systems-based thinking" skills, critical thinking skills, evidence-guided decision-making abilities, and global-minded leadership talents; therefore, medical educators are encouraged to adopt a similar attitude (16). The student's outlook on global health varies greatly, viewing it as a "fundamental" to "merely a topic of geographical relevance" and "a specialist area for those working overseas" to "essential part of working relevant to all medical professionals" (17). In fact, the purpose of IoME is to acquire means to achieve goals and outcomes set by global health that are aimed at improving health for all people worldwide. Therefore, the acquisition of cultural competency and knowledge about global health issues are essential outcomes of IoME (4).

The main reason to learn about UniKL RCMP students' attitude towards IoME was the lack of diversity among students with a significant female preponderance. The other reasons include curriculum that was locally developed, limited opportunity for elective overseas or short-term service missions partly due to inadequate funding, and less accessibility to virtual international conferences and lectures. Instead, they have good exposure to international lecturers within the program and nationally linked conferences and research output sharing sessions.

This study was not to find how our students experience international content within the current curriculum; instead, we looked into their general perspective on international students, lecturers, and curriculum. While research related to psychology in internationalization is still a rarity, it has been reported that open-minded people are better prepared to achieve high levels of communication because they are more adapted to a new business style (18). It may well be translated in medical practice, where trust building is key to the doctor-patient relationship and working in a team is crucial irrespective of cultural differences. At this juncture, we support the argument that "students' attitudes and dispositions can be important enablers or blockers to effective internationalization of the curriculum in higher education" (19). It is highlighted that students' attitude and motivation are important factors, and if they perceive them positively, they will be able to capitalize on the benefits of internationalization and students' diversity (20).

The students' outlook on globalization may be influenced by their upbringing, their exposure before joining the college, or their social circle. In their learning environment, they have been exposed to international aspects in various ways at different stages. In the UniKL RCMP MBBS curriculum, psycho-social issues and cultural competency aspects are covered in the medicine and society module and the professional and personal development module that have been delivered since year 1. There are medical missions, local and international, organized to get them a good exposure to rural community health, including problems faced by underprivileged and marginalized populations. Global health issues are highlighted in the public health module. An evidence-based medicine approach is emphasized in clinical learning. They have chances to get a feel for the international experience shared by expatriates and local faculties with rich international exposure.

The respondents widely supported the notion that "all universities should have international students," acknowledging the benefits of them to institutions and students, and they recognized the soft skill attributes of

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international students. It is interesting to learn which factors lead to their openness towards international counterparts. Interpersonal and communication skills, system-based practice, and open-mindedness are described as among the core clinical competencies expected from a medical doctor (14). Our participants exhibited their openness towards international classmates and friends; however, there is no literature available to date to compare with our findings. In reality, many Malaysian medical programs lack student diversity, probably due to a quota set by the government, high demand among locals, and the uncertainty of international recognition of some local programs.

It is not surprising that our respondents are quite comfortable with international lecturers. Although there is no data available to compare with our findings, Malaysian medical institutions have a traditional association with international faculties, offering more diversity among medical educators than among medical learners. This phenomenon might be due to less interest in becoming educators among local physicians or joining teaching late in their career and good incentives offered to attract foreign educators.

In Malaysia, medical students enjoy the rich curriculum choice offered by various medical programs, i.e., locally innovated, imported (same curriculum used on the foreign main campus), or adapted (modified and adopted curriculum to cater to local needs). The most valued curriculum among our respondents was the transnational curriculum, for which a brief description was given in their questionnaire as "a curriculum developed internationally with global standards while considering local needs," even though currently no undergraduate medical program in Malaysia is under the framework of a formal transnational education system. They might have more understanding from their further reading; therefore, they have given logical reasons for their curriculum choices in their response. Their second choice is the local curriculum.

A tailored approach is needed to achieve transnational competence among their graduates during the implementation of the program. Likewise, all programs must develop strategies to adjust to the changing needs of students with culturally and contextually appropriate support within and outside their specific learning environments (21). Malaysia has a locally innovated, socially driven program called "Program Perkongsian Universiti Keluarga dalam Kesejahteraan Komuniti" or "University-Family Partnership in Community Wellness Program," which has been well accepted by the selected rural communities of Sabah in Northern Borneo and provides a unique family-based medico-social learning experience through five years of medical learning (22). The adaptability of Malaysian students was documented as they adapted and appreciated the curriculum imported from the US by describing it as an active learning environment with an open and friendly culture while addressing the challenges (23).

Worldwide, medical students are exposed to international educational content through online platforms. Besides, they have the opportunity to go elective overseas for experiential learning in different health care systems and demographic populations. The percentage of our respondents who had the intention to do electives overseas can be considered quite high when compared to the previous finding that only 29% of undergraduate students had ever seriously thought about students' exchange programs (24).

Our findings clearly indicated that most students understood the importance of IoME and supported Alemu's appraisal, which described several benefits, including improvements in teaching standards, learning, and research, and the preparation of students nationally and globally while enhancing institutional policy-making and governance (25). It is also important to note the long list of adverse consequences and risks of internationalization in higher education, as summarized in previous appraisals (25–27).

Why IoME is important for medical schools in Malaysia now more than ever is that there is an oversupply of medical graduates, which may lead to finding opportunities elsewhere. For fresh graduates, employment overseas can be a win-win situation to earn and learn, as training is an integral part of employment while killing the waiting time for permanent positions and postgraduate training within the home country.

Among demographic variables, the only factor that is significantly associated with students' perceptions was the academic year, from which no valid conclusion can be drawn. While data is scarce, a follow-up study of eighth graders beyond their high school found that students with a positive predisposition toward internationalization, i.e., having foreign-born parents and/or experiencing different cultures overseas, were more likely to study abroad (28). However, in this study, we missed the opportunity to gather parents' education level and father's migration status, which were found to be significantly associated with college students' attitudes towards some aspects of IoME (29).

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Our results indicated the link between the students' perception and their intention to do elective overseas or their perceived readiness towards overseas training and employment. A previous study reported additional factors linked to the perceptions of preparedness of medical graduates for hospital practice in any diverse setting, i.e., early consideration of postgraduate career preparation and helpful medical school career guidance (30). The focus of medical students should go beyond becoming competent clinicians to obtain mentored global health experiences that can improve their understanding of the physician's role in serving vulnerable populations abroad and domestically (31).

Our analysis showed female students with a positive attitude are more interested in doing electives overseas and more likely to have perceived readiness for further study or work abroad than their male counterparts. The gender gap with female preponderance has long been observed consistently among higher education studies abroad, although associated social demographic factors are not yet fully explored. Among the US arts college students, not gender per se, class and gender were linked as one factor responsible for more female participation in study abroad (32).

A case study among higher education students, including medical students from the Netherlands, suggests maternal education attainment may play a crucial role in the decision-making process of female students' study abroad (33). Therefore, it will be interesting to find out which socio-demographic and cultural factors are related to students' perceptions of IoME, which is shown to be strongly linked with their preparedness to study and work overseas. More studies need to be done in Asia, as rightly pointed out in a review that only 2.9% of studies on global health education from 2010 onwards are conducted in Asian countries (34).

The COVID-19 pandemic restricted cross-border trade and changed the business environment to be more national than before the pandemic. The opposite change is observed in the medical environment, where international collaboration is more appreciated than ever. Cross-border mass migration is still a rising trend as a result of internal and international conflicts, political instability and economic inequality among nations, and an appreciation of transnationalism and cosmopolitanism among the new generation.

Cultivating a global mindset is a difficult task involving levels of social and cognitive transformation that are abundantly described in literature related to the training of global talents in business and political fronts.

Previous studies have consistently provided evidence on the benefits of ISLT. A recent Japanese study highlights students' positive experiences with east-to-west outbound programs, among which short-term clinical learning trips were most preferred (35).

Therefore, in a simplified way, the following steps are recommended to assist students in having international exposure in the process of developing a global mindset.

1. The medical schools should have a policy that promotes international student recruitment and local student diversity.
2. The students' profile should include their socio-cultural values and their past international exposure and experience.
3. The educators have to help them understand that medical globalization is inevitable and they will be a part of the global community, irrespective of their choice to work locally or internationally.
4. The students should be reminded that awareness of global health issues and applying evidence-based medicine must be part of their common practice.
5. The developing strategies for global mindset and cross-cultural competency must be explicitly described in their curriculum.
6. The program must allocate funding for ISLT and, similarly, invest in practical and cost-effective at-home activities (virtual international conferences, transnational lectures and discussions, cross-border research collaboration). All activities must be well designed to provide students with a good experience beyond their culture, religion, social, and economic status.
7. The pedagogy must be developed based on the existing models (business schools, leadership training) to enhance cross-cultural competency for both educators and learners while acknowledging the complexity of global mindset transformation mechanisms.
8. The research related to IoME should be case-specific (ethnicity, cultural identity, upbringing, lifestyle, etc.) and in-depth rather than generalized. The best examples are seen in studies related to internationalization in business education.

Our project involved the majority of Malay students from a local private medical institution; therefore, the findings could reflect the majority of public medical schools in Malaysia. However, it may not represent some medical schools where Chinese or Indian students are the majority and offshore campuses of foreign universities. In the questionnaire, though it was validated, we had a concern related to the students' understanding of the question of curriculum choice. However, after assessing

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their response together with the reason given for their selection (that was answered in text in their own writing), we are confident that they have knowledge of different types of curriculum. We developed a research questionnaire because there was none available to assess outcome variables of our interest and concerns; therefore, parallel use of the original questionnaire may be difficult. In hindsight, we inadvertently missed the opportunity to identify a possible association between their perceptions and sociodemographic factors such as parental education, father or mother migration status, and students' previous exposure to international students or lecturers.

Conclusion

The students exhibited a positive attitude towards certain aspects of IoME. It is the responsibility of medical educators and administrators to equip them with clinical and cultural competency by designing and implementing curriculum in line with international standards. Medical schools should consider a quota for international students and local students of different ethnicities. There is a positive association between the respondents' attitude and their intention or their perceived readiness to study and work overseas, more distinctly among female students. It is important to discover factors linked to students' perceptions so that curriculum can be designed with a tailored approach to suit students from different socio-cultural backgrounds.

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 of artificial intelligence was used in manuscript writing of this article.

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Conflict of interest statement

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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