Motivations for and Challenges in the Development of Global Medical Curricula: A Scoping Review

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Abstract

Purpose
The aim of this scoping review is to understand the motivations for the creation of global medical curricula, summarize methods that have been used to create these curricula, and understand the perceived premises for the creation of these curricula.

Method
In 2018, the authors used a comprehensive search strategy to identify papers on existing efforts to create global medical curricula published from 1998 to March 29, 2018, in the following databases: MEDLINE; MEDLINE Epub Ahead of Print, In-Process, and Other Non-Indexed Citations; Embase; Cochrane Central Register of Controlled Trials; Cochrane Database of Systematic Reviews; PsycINFO; CINAHL; ERIC; Scopus; African Index Medicus; and LILACS. There were no language restrictions. Two independent researchers applied the inclusion and exclusion criteria. Demographic data were abstracted from publications and summarized. The stated purposes, methods used for the development, stated motivations, and reported challenges of curricula were coded.

Results
Of the 18,684 publications initially identified, 137 met inclusion criteria. The most common stated purposes for creating curricula were to define speciality-specific standards (50, 30%), to harmonize training standards (38, 23%), and to improve the quality or safety of training (31, 19%). The most common challenges were intercountry variation (including differences in health care systems, the operationalization of medical training, and sociocultural differences; 27, 20%), curricular implementation (20, 15%), and the need for a multistakeholder approach (6, 4%). Most curricula were developed by a social group (e.g., committee; 30, 45%) or Delphi or modified Delphi process (22, 33%).

Conclusions
The challenges of intercountry variation, the need for a multistakeholder approach, and curricular implementation need to be considered if concerns about curricular relevance are to be addressed. These challenges undoubtedly impact the uptake of global medical curricula and can only be addressed by explicit efforts to make curricula applicable to the realities of diverse health care settings.

Medical education is faced with mounting calls to develop global curricula for training.[1,2] These calls run in parallel with overall globalization developments in the field of health care, including an increasing number of pandemics, the rise of noncommunicable diseases, and increased focus on the social determinants of health.[3] However, the real-world implications of global medical curricula—for example, local applicability, implementation, and impact—are not well understood.[4] Further, the influence of such curricula on reproducing the dominance of the Western biomedical model is a concern to scholars following the loss of Indigenous and context-specific health practices.[5,6] In addition, the fit of these curricula within the local medical health care system is a potential challenge given the diversity of health care globally. This is important to understand as outdated or ill-suited curricula can lead to gaps in clinical care.[7]

The calls for global standards in medical education, including curricula, originate from influential educational entities such as the World Federation for Medical Education (WFME) and the World Health Organization's Institute for International Medical Education (IIME). The WFME, founded in 1972, is an international body that aims to promote quality improvement in medical education and has a current focus on accreditation and maintaining the World Directory of Medical Schools.[1] The WFME has developed and disseminated standards along the continuum of medical education from undergraduate to continuing medical education.[8] The WFME also provides a curriculum development framework that can be modified locally. The IIME, founded in 1999, has the goal of developing global minimal essential requirements for physicians around the world.[2]

At a regional level, Europe has several initiatives to harmonize higher education training standards, including the Bologna Process[9] and the European Credit Transfer and Accumulation System (ECTS). The ECTS addresses training in all higher education disciplines and aims to facilitate the recognition of the training done in each individual country in Europe across the whole of Europe so as to promote quality training and the free movement of people.[10] However, the ECTS does not specify certain curricular requirements. Specific to medical education, there is the European Union

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of Medical Specialists (UEMS), which represents over 50 medical disciplines and 37 countries in Europe. The mission of the UEMS is to "[set] standards for high quality healthcare practice that are transmitted to the Authorities and Institutions of the [European Union] and the National Medical Associations stimulating and encouraging them to implement its recommendations."[11] Collectively, these internationally recognized organizations in education (WFME, IIME, and UEMS) have, over the past 2 decades, made efforts to accomplish their goal of identifying global standards in medical education, including producing global curricula.

The impetus for creating global curricula in medical education is multifactorial. They are purported to have benefits, including improving the quality of training, promoting individual freedoms by allowing for the free movement of people, and mitigating gaps in the health workforce.[12] However, the development of curricular content is a social process that involves individuals with diverse values, histories, cultures, and varying levels of power.[13] While there are many reasons to embark on the creation and revision of medical curricula, the most persuasive argument is often providing better education and by extension better patient care. It has also been proposed that curriculum development and renewal can be an opportunity for building strategic networks and bringing people and ideas together.[13] This type of social networking is appealing if it promotes the sharing and integration of knowledge and technologies from different sectors and is a source of positive growth for all parties. However, proposing curricular solutions to address global challenges in medical education is mired in power dynamics and requires reflection and humility[14] given the diversity of perspectives and local contexts represented in such discussions. Global medical curricula are vulnerable to being overly specific in their articulation of requirements, akin to a shopping list of competencies, which can dampen aspirations for innovation and excellence.[15] In addition, global medical curricula may lack a critical understanding of local cultural and/or historical norms, which are critical to the delivery of health care and therefore to medical training.[14]

In a previous publication, we identified a preponderance of Western authors in the field of global oncology curricula, suggesting the dominance of the Western perspective in global medical curricula in this discipline.[16] It is not known if the dominance of the Western perspective is occurring in global medical curricula in other disciplines outside of oncology. Understanding the stated purposes and stakeholder voices represented in the construction of existing global medical curricula may yield insights into strengths and gaps to inform future curricular efforts of this kind. Therefore, the aim of this scoping review is to understand the stated purposes for, motivations for, and challenges in the creation of global curricula; to summarize the methods that have been used to create these curricula; and to understand the perceived premises for the creation of these curricula. We also aim to consider how the stated purposes for global medical curricula are aligned with the methods used to create them, including considering the different sociopolitical voices of those who participated in the development of the curricula.

Method

We conducted a scoping review to understand and summarize existing efforts to create global medical curricula using the 5-step methodology of Arksey and O'Malley.[17] We selected a scoping review methodology as it would allow a systematic mapping of the existing work in global medical curricula (including the articulation of trends), facilitate comparisons among curricula, and identify gaps in curricula.[18] The research team, including an information specialist (R.F.), constructed a comprehensive search strategy that was peer-reviewed by additional information specialists before beginning the search. See Supplemental Digital Appendix 1 (at http://links.lww.com/ACADMED/A893) for the final search strategy. The following databases were searched to identify relevant papers published between 1998 and March 29, 2018: MEDLINE; MEDLINE Epub Ahead of Print, In-Process, and Other Non-Indexed Citations; Embase; Cochrane Central Register of Controlled Trials; Cochrane Database of Systematic Reviews; PsycINFO; CINAHL; ERIC; Scopus; African Index Medicus; and LILACS (results given in Spanish). Where available, both medial subject headings (MeSH) and keywords were used to maximize search results and account for global linguistic variations. The search terms included *facult**, *educat**, *graduat**, *postgraduat**, *residen**, *fellow**, or *clerkship** for medical education; *curricul**, *program**, *train**, *core**, or *standard** for curriculum; and *global**, *universal**, *multinational**, or *worldwide** for global. There were no language restrictions. The time span of 1998–2018 was selected based on a previous study[16] in which it was found that there was a proliferation of global medical curricula efforts in the last 20 years.

Inclusion and exclusion criteria and selection process

Inclusion and exclusion criteria were applied by 2 independent researchers (M.G. and M.B.). We resolved any disagreements through discussion by the 2 researchers until a consensus regarding inclusion or exclusion was reached. We included publications if they were peer-reviewed, focused on physicians and related to any phase of medical education (e.g., undergraduate, postgraduate, continuing medical education), and if they contained a global or regional (> 1 country) curricula or discussed the concept of global, regional, or core curricula. Publications were excluded if they were intended for nonphysician professions, focused on patient or caregiver education, were curricula on global health, were surveys of practice, or were on the topic of international medical graduates (IMGs).

We first screened all publications for inclusion by their title and then reviewed their abstracts. Finally, we reviewed the full text of all remaining publications.

Data abstraction and analysis

The following data were extracted by M.G. and M.B. from each publication: publication year, publication language, medical specialty that was the topic or focus of the publication, phase of medical training referred to in the publication (e.g., postgraduate), number of authors on the publication, and the countries (which were used to determine geographic regions) of the authors on the publication. If present in the publications, the stated purposes for creating global medical curricula were recorded. For this analysis, purpose was defined as an explicit statement in the publication regarding the reason for creating the global medical curricula. For publications

that were actual curricular documents, the methods used to develop the curricula were also recorded. Descriptive statistics were used to summarize these demographic data.

As part of our analysis, we also sought to understand if there was transmission of Western ideologies through the development and implementation of global medical curricula. To do this, the current scoping review builds on our previous research.[16] That is, in past work, we found that exploring the methods taken in the development of curricula could yield important information on the power relations between resource-rich and resource-poor countries. Thus, to capture the purposes for and methods used in developing curricula, we coded publications deductively to ascertain the stated purposes and methods used for the development of curricula, as well as the stated motivations (theoretical benefits or driving factors) and reported challenges of curricula. We also coded for geographic area of participating curriculum developers (i.e., the authors). Taken together, the data we coded for allowed us to capture patterns related to power relations at play in the development of the curricula. We believe this type of analysis, currently absent in the literature, will advance current approaches to developing global medical curricula because it makes gaps in representation visible and helps to foreground potential unintended consequences of promoting global curricula.

A subset of articles was initially coded by M.G. The coding approach and structure were reviewed and discussed by most of the authors (M.G., J.F., E.W.D., M.A.M., J.P.) until coding was consolidated into core areas of focus by mutual agreement. The data were then reanalyzed and summarized by M.G. and M.B. The coding was completed using NVivo software, version 11 (QSR International Pty Ltd., Melbourne, Victoria, Australia). Following coding of the entire dataset, the analysis and interpretation of results were refined through multiple research meetings between M.G. and most of the other authors (J.F., E.W.D., M.A.M., J.P.).

Results

The initial search resulted in 18,684 publications (see Figure 1). After the removal of duplicates, title screening, and abstract review, 312 articles remained and underwent full-text review. Of these 312 articles, 137 met inclusion criteria and were included in our analysis.[4,9,10,15,19–151]

Publication demographics

The geographic region of authors was most frequently Europe (58, 42%), followed by North America (the United States and Canada; 18, 13%; see Table 1). Additionally, many publications (49, 36%)

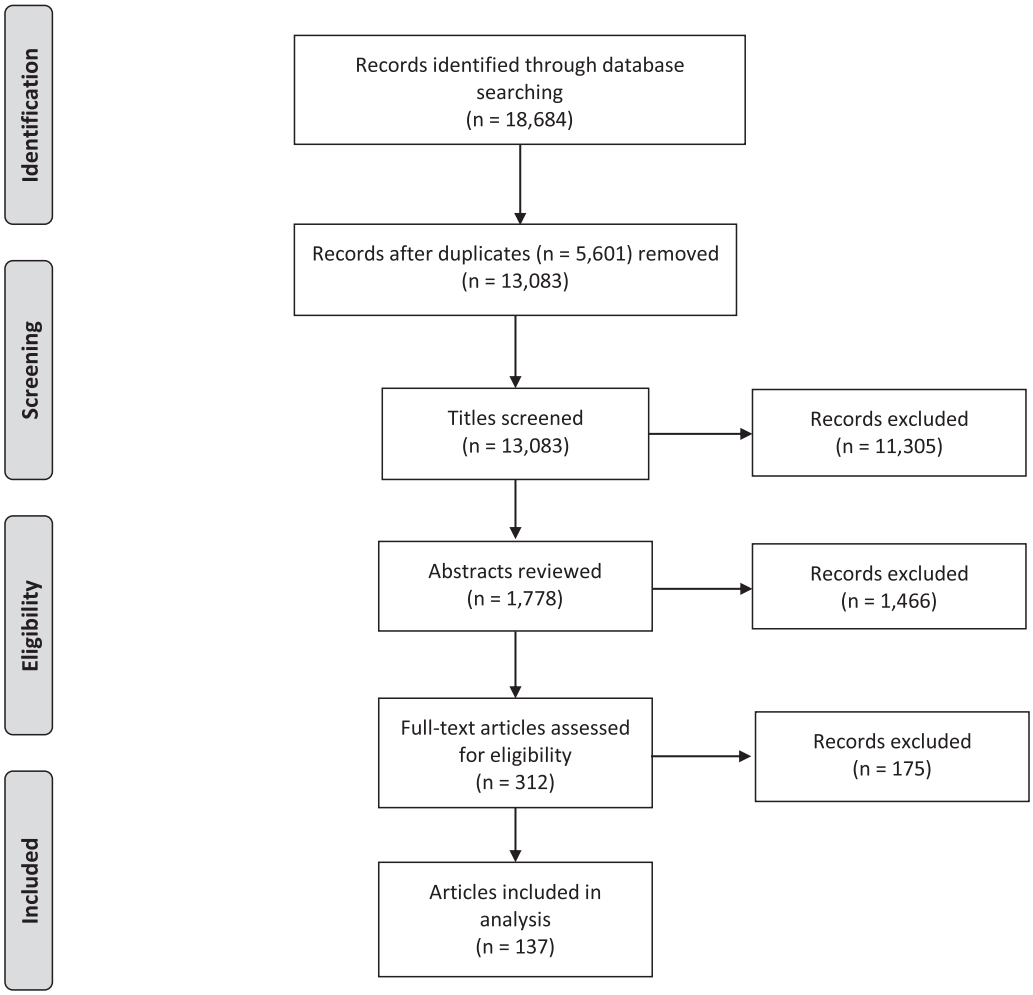

Figure 1 PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)[165] flow diagram showing the selection process used in a 2018 scoping review aimed at understanding and summarizing existing efforts to create global medical curricula.

Table 1

Demographic Characteristics of Included Articles (n = 137) From a 2018 Scoping Review[a]

Characteristics	No. (%)
Year of publication	
1998–2010	59 (43)
2011–2018	78 (57)
Phase of training	
Undergraduate	23 (17)
Postgraduate (residency)	78 (57)
Postgraduate (fellowship)	3 (2)
Continuing medical education	7 (5)
Multiple levels	24 (18)
Other	2 (1)
No. of authors	
1–3	56 (41)
4–9	56 (41)
≥ 10	24 (18)
Unknown	1 (1)
Geographic region of authors	
Africa	3 (2)
Asia	4 (3)
Oceania	2 (1)
Europe	58 (42)
Latin America	2 (1)
North America[b]	18 (13)
Multiple regions	49 (36)
Unknown	1 (1)
No. of geographic regions represented by authors	
1	87 (64)
2	31 (23)
3	10 (7)
4	3 (2)
5	4 (3)
6	1 (1)
Unknown	1 (1)
Publication language	
English	134 (98)
Other	3 (2)
Medical speciality	
Medicine and medicine subspecialties	52 (38)
Pediatrics and pediatrics subspecialties	1 (1)
Psychiatry and psychiatry subspecialties	5 (4)
Radiology and nuclear medicine	9 (7)
Surgery and surgical subspecialties	15 (11)
Medical education	27 (20)
Other	28 (20)
Stated purpose for creating global medical curricula (n = 166)[c]	
Define common speciality-specific standards	50 (30)
Harmonize training standards	38 (23)
Improve the quality or safety of training	31 (19)
Promote and define a speciality	24 (14)
Physician mobility	16 (10)
Address health human resources shortages	5 (3)
Reduce inequalities	1 (1)
Cost-effectiveness	1 (1)

[a]Aiming to understand and summarize existing efforts to create global medical curricula.
[b]The United States and Canada.
[c]A publication may have articulated more than one purpose for creating global medical curricula.

had authors from multiple regions. Most articles (134, 98%) were published in English. The mean number of authors on publications was 8 (range = 1–145; data not shown). Seventy-eight (57%) articles were published between 2011 and 2018, and most (81, 59%) were focused on postgraduate medical education (i.e., residency [78, 57%] and fellowship [3, 2%]). Medicine and medicine subspecialties were the most common medical speciality represented, accounting for 52 (38%) publications.

Stated purposes for global medical curricula

A publication may have articulated more than one purpose for creating global medical curricula. Thus, we identified 166 purpose statements in the 137 publications. The most common explicitly stated purposes for creating global medical curricula were to define common speciality-specific standards (50, 30%), to harmonize training standards (38, 23%), and to improve the quality or safety of training (31, 19%; see Table 1).

Challenges with global medical curricula

The most common challenges articulated in the publications were intercountry variation (27, 20%), curricular implementation (20, 15%), and the need for a multistakeholder approach (6, 4%; see Table 2). In addition, each publication that discussed curricular implementation as a challenge (20, 15%) also offered recommendations on implementing global medical curricula.

How intercountry variation impacts global medical curricula was captured in 3 main areas. The first was differences in health care systems. For example, the concept of the link between the content of the curricula and the health system in one document was articulated as "[curricular content] is not only depend[ent] on national traditions, but mainly on the way neurology is practiced and how health system structures are used."[142] The other 2 main areas within intercountry variation were the operationalization of medical training (including the duration of training[37]) and sociocultural differences (including "widespread cultural and religious diversities and positioning of the doctor within society"[85]).

Table 2
Challenges and Motivations Associated With Global Medical Curricula as Articulated in Included Articles (n = 137) From a 2018 Scoping Review[a]

Challenges or motivations	No. (%)
Challenges	
Intercountry variation	27 (20)
Curricular implementation	20 (15)
Need for a multistakeholder approach	6 (4)
Health professional shortages	4 (3)
Resource constraints	4 (3)
Other	11 (8)
Motivations	
Promote physician mobility	9 (7)
Improve quality	6 (4)
Harmonization	5 (4)
Other	3 (2)

[a]Aiming to understand and summarize existing efforts to create global medical curricula.

Intercountry variation was sometimes presented as a positive and sometimes as a negative challenge. For example, Hodges and colleagues propose "that it is time to study and embrace differences and discontinuities in goals, practices and values that underpin medical competence in different countries"[91] (positive challenge), while Khanam and Chowdhury view this as a limitation on achieving uniformity, stating "medical curricul[a] [differ] greatly worldwide in their content, thus, levels of professional competenc[i]es acquired by graduates of medical schools varies across the globe. Consequently, it becomes difficult to get [a] uniform global physician"[94] (negative challenge). Finally, intercountry variation and the tension between global and local priorities were identified as factors in the success of global curricula implementation. It was, for example, argued that "development of these training programs is multifaceted and must take into account the specific needs of the recipient country in order to be successful."[72]

Among recommendations for implementing global medical curricula, the most frequent recommendation was about the need for local adaptation to facilitate implementation. Authors who have made global medical curricula implementation recommendations have articulated that "flexibility has to be important, otherwise parts of Europe may be unable to offer training"[78] in alignment with the proposed curricula and that implementation of "training standards and curricula in local contexts will be best guided by regionally determined policies in regard to some key implementation issues."[129] Similarly, the role of global medical curricula was described as a road map in one article: "A core syllabus should not dictate when or how the content is to be delivered. Its value is simply to provide a helpful roadmap for related educational journeys."[38] Other implementation recommendations included having the appropriate assessment tools to evaluate educational outcomes; the need to address the tension between the priorities of academic institutes and the health care system[131]; and the need to address barriers to implementation, including financial, political, and cultural barriers (e.g., "initially, the implementation of the project of [a] universal medical curriculum will face lots of cultural, political and sociological difficulties"[85]). These considerations also apply to the next challenge—the need for a multistakeholder approach.

The need for a multistakeholder approach challenged the dominant paradigm of using a social group or the Delphi or modified Delphi process as the most appropriate methods for developing global medical curricula. However, in this scoping review, the majority of curricula were created using these methods (see below and Table 3). Authors advocating for a multistakeholder approach propose that "expert consensus alone is not the most appropriate way to define the professional competencies required for clinical practice"[106] and question whether "[there is] a more accurate way of capturing competency beyond expert consensus."[138] They allude to the need to extend these consultations beyond the expert core to other stakeholders, including those who would be implementing the curricula locally.

Incongruence between Western priorities and local priorities,[85,91,122,149] suppression of traditional approaches,[91] and reducing diversity[91] were also challenges that were identified in the publications. Hodges and colleagues have articulated that "a risk of reduction of diversity and a suppression of traditional knowledge or approaches, by dominant groups or

Table 3
Methods Used for the Creation of Global Medical Curricula From 67[a] (of 137) Included Articles in a 2018 Scoping Review[b]

Methods	No. (%)
Social group process (committee, expert panel, task force, working group, etc.)	30 (45)
Delphi or modified Delphi process	22 (33)
Literature review	2 (3)
Mixed methods	6 (9)
Survey	3 (4)
Other	4 (6)

[a]This subset of articles includes actual curricular documents.
[b]Aiming to understand and summarize existing efforts to create global medical curricula.

countries …"[91] exists and that "while there are quite distinct cultural aspects to medicine, medical education tends to be blind to these differences and act as a 'culture of no culture.'"[91] They also argued for critical reflection during the curriculum design process to determine what perspectives are present in the consensus processes and whether certain competency areas are underrepresented due to this tension between the universal and diversity. Authors have argued that programs should counter Western dominance by "tak[ing] into consideration the socioeconomic and cultural framework of the local community when designing curricula"[122] and by being mindful that there may be "incompatible cultural attitudes like individualism, difficulty in getting involved in discussions, and [an] exaggerated tendency to be outspoken in some of their [non-West] students"[85] when moving discussions and curricula from Western to non-Western contexts.

Motivations for creating global medical curricula

In addition to the explicitly stated purposes for creating global medical curricula, publications also described theoretical benefits or driving factors for creating global medical curricula, which we coded as motivations.

The most frequently cited motivation behind creating global medical curricula was promoting physician mobility (9, 7%; see Table 2). Authors felt global medical curricula made movement to different areas easier by assisting

regulatory bodies in credentialing physicians in different regions, as exemplified in the following excerpt: "The certification or credentialing of vascular and endovascular surgeons who have all achieved the expected competencies agreed to internationally allows regulatory bodies to develop consistent approaches between countries."[76]

Improving quality (6, 4%) was the next most frequently cited motivation for creating global medical curricula. The quality narrative focused on the quality of patient care, the quality of the training programs, or the role of quality training in realizing high-quality patient care. For example, Besso and colleagues noted that "harmonizing educational outcomes and strengthening processes of training and accreditation … enhances the quality of care [trainees] provide worldwide."[43] Others described the role of these curricula in "meeting [the] demands of the public for guarantees of graduate competence and cost-effectiveness of their training."[38]

Methods for developing global medical curricula

A subset of the 137 publications were actual curricular documents (67, 49%). These 67 publications were analyzed to determine what methods were used for their creation. The most common methods used were a social group process (such as a committee or expert panel; 30, 45%) or a Delphi or modified Delphi process (22, 33%; see Table 3).

Discussion

In this scoping review, we found that the majority of publications on global medical curricula efforts originate from Western geographic regions, namely Europe and North America (the United States and Canada). This is an important finding as a predominance of Western discourse in the literature on global medical curricula may suppress important views from non-Western stakeholders. This, in turn, may limit the utility of these curricula and contribute to an ongoing imbalance between curricular content and health system needs.[7] We have described the challenges associated with global medical curricula that were articulated in the included articles, which included intercountry variation, the need for a multistakeholder approach, and curricular implementation.

The usefulness of global medical curricula once they have been implemented has not been assessed.[4] It has been recommended that global medical curricula should be developed in consultation and collaboration with those stakeholders who will ultimately implement the curricula. In addition, Bandaranayake states that the need to maintain societal relevance should take precedence over standardization.[38] These are significant challenges, and further studies to improve both the understanding of and approach to the development and implementation of global medical curricula are needed. Our findings do suggest an awareness of the need for diversity of input and the importance of engaging the stakeholders who will be implementing the curricula. However, international standards, despite efforts to mitigate this in the planning stage, can still reflect Western standards[152] and whether diversifying stakeholder input alone will be enough to mitigate this problem is uncertain. An important example of the concern over Western values driving the standardization movement is articulated in an article on the Educational Commission for Foreign Medical Graduates (ECFMG) policy that states that beginning in 2023, IMGs must have graduated from a formally accredited medical school to receive ECFMG certification.[153] As the article notes, this policy has the potential to impact the physician workforce not only in the United States, where they may see a decrease in IMGs, but also in other countries where they may have an increase in IMG applicants as well as in home countries where they may retain a greater number of physicians.[153] This also raises concerns about Western accreditation standards and the global–local tensions that arise.[154] Could a move to meet these international accreditation standards create a mismatch with local needs? This is of particular concern in countries or regions where clinical practice or the type of technology available are significantly different from clinical practice or the type of technology available in countries or regions that are setting the standards. In addition, it is challenging to demonstrate that international accreditation equates to higher-quality patient care in the United States or in the country in which an individual was training.[153]

A global approach to medical education is challenging. The process of consensus and standardization may be susceptible to influence by individuals' conflicts of interest, political pressures, and differences between how educational activities are reported versus how they are actually delivered in a country.[155] Our work has elucidated similar concerns with respect to global medical curricula development, namely political and sociocultural challenges. An additional challenge in global approaches to education is that there are regional variations as to what is considered a high priority. For example, humanism in medicine is a growing priority in Western contexts.[120] In other regions, moral duties, such as responsibility, receive priority.[156] The essential consideration of social, cultural, and health care system factors[86] in developing local training content needs to be addressed in global medical curricula.

The main motivation for creating global medical curricula identified in this scoping review was to promote physician mobility. This reflects the discourse on the internationalization of medicine and medical education.[157] The internationalization of medicine is a driving factor behind the need for global standards, and physician mobility is a core element of the internationalization of medicine.[38] However, while physician mobility may promote individual freedoms, it may also lead to increased maldistribution of health care workers.[158] The movement of physicians from low- or middle-income countries to high-income countries can create severe physician shortages and drive declines in the physician-to-population ratio in low- or middle-income countries.[10] Mechanisms to accurately monitor and model the global health workforce are challenging but will be integral to determining the impact, positive or negative, of promoting greater physician mobility.

Global medical education standards, such as those articulated by the WFME, emphasize certain priorities, including a foundation in the biomedical sciences, which could perpetuate Western medical priorities.[159] In turn, these priorities may be reflected in the global medical curricula identified in this scoping review, as none referred to traditional medicine or engaging traditional healers in care. Instead of focusing on traditional medicine, the social science priorities articulated by the WFME recommend

focusing on professionalism, as well as legal and ethical responsibilities,[159] and an analysis of humanism in global oncology curricula also identified this emphasis on professionalism.[160] Despite the importance of traditional medicine in global contexts,[161,162] we were not able to identify content in the existing global medical curricula that addresses traditional medicine, Indigenous health care treatments, or their integration into care in global contexts.

In addition, another point of consideration in the development of global medical curricula is that different areas of the globe have access to widely varying levels of technology. How this is manifest and the degree of impact it has in different specialties is likely variable. Radiation oncology, a subspecialty field of oncology that is heavily reliant on complex technology, provides an illustrative example. In a global radiation oncology curriculum published by the International Atomic Energy Agency (IAEA), the IAEA describes 3 skill levels that range from mandatory (level 1 and 2) to desirable (level 3).[163] These levels reflect varying access to technology. However, one questions if there is a preferable approach to addressing variable access to technology in curriculum design. One may argue curricula should be adapted to suit whatever level of technology is available in a given local context, as in the IAEA global radiation oncology curriculum, while others may promote education based on whatever the most state-of-the-art technology is even if there is no local access to it. This latter approach may facilitate the referral of patients to higher-resource settings (e.g., the referral of Canadian cancer patients to the United States for proton beam therapy[164]) or may give clinicians a foundation for advocating for new resources in their setting. This complex intersection of globalization and technology would benefit from additional study and exploration.

The most common methods used to create the global medical curricula in this study were social group and Delphi processes. These methods are reflective of recommendations in the literature.[157] Without data on the success of curricular implementation and the degree of adoption of curricula, however, we cannot provide recommendations as to which methods may produce superior results. Nevertheless, given the recommendations to engage diverse stakeholders in global curriculum development, using mixed methods may be necessary. Only 9% of the actual curricular documents identified in this scoping review applied a mixed methods approach. The limitations of social group and Delphi processes include a reductionist approach and tension between a desire for standardization and valuing diversity.[85,105,138] Thus, it is important to be mindful that social group and Delphi processes do not methodologically lend themselves to preserving diversity, particularly if the perspectives medical educators hope to incorporate in global medical curricula are those of minority experts.

This scoping review has several limitations. We were not able to determine the degree to which an increase in multiregional perspectives in the development of global medical curricula would result in real-world improvements in local curricular implementation. Answering this question would be better explored through a qualitative approach. Through analysis of the included publications alone, we could not ascertain each stakeholder's degree of engagement in the development of these curricula. This is an important limitation as it has been stated that failing to engage those who implement the curricula will result in a failure of the curricula to be applied in practice.[38] To address this concern, future studies should include observations of global medical curricula development meetings and stakeholder interviews. In addition, all of the authors of this scoping review have a Western background, and this may have influenced our interpretation of the data. Our findings show that there is a Western–non-Western distinction that is made in the literature; however, this distinction is likely overly simplistic and future research and future global medical curricula development efforts should be more sensitive to the diversity *within and across* Western and non-Western contexts. We were not able to ascertain a single definition of global or regional with respect to medical curricula in the published literature. As such, with a desire to be comprehensive, we used an inclusive definition of global or regional as > 1 country in this scoping review. While this approach fostered inclusivity, an alternate definition may produce different results. A final consideration, as with all reviews, is that we may not have captured all possible publications on this topic.

Conclusions

Facilitating physician mobility and improving quality were the main motivations articulated for the creation of global medical curricula. However, as this scoping review has revealed, the challenges of intercountry variation, the need for a multistakeholder approach, and curricular implementation need to be considered if medical education is to address concerns about the relevance of these curricula. These challenges undoubtedly impact the uptake of global medical curricula and can only be addressed by explicit efforts to make these curricula applicable to the realities of diverse health care settings.

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