MEETING REPORT

IAMSE Meeting Report: Student Plenary at the 26th Annual Conference of the International Association of Medical Science Educators

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Accepted: 6 October 2022 / Published online: 19 October 2022
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Introduction

In support of the 2022 IAMSE annual meeting theme, “Healthcare Educators, Learners, and Providers: Building the Future Together,” the program committee elected to represent the viewpoints of current learners during a student plenary session delivered by osteopathic and allopathic medical students from the Netherlands and the United States. Students were invited to discuss their perspectives during the session titled “What an inclusive future in the medical profession looks like to us.” The session was to allow conference attendees to engage and gain insight into learner perspectives on how best to prepare students for future healthcare environments. Each student representative on the plenary panel delivered a 10-min presentation outlining their thoughts about the future of health profession education, followed by a question and answer session from the audience. The student presentations are summarized as follows.

An Inclusive Future for Healthcare Through Understanding and Mitigation of Bias

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Bias is present among professionals in every field. In medicine, bias exists between the patient, the provider, and the interprofessional team. Biases and assumptions affect judgment and behavior towards others. Bias can influence diagnoses, treatment decisions, and care levels, leading to healthcare disparities [1]. Although complete elimination of bias may be unattainable, it is critical that future healthcare professionals endeavor to be cognizant of personal bias and strive to minimize the impact on patient outcomes. The challenge can be further exacerbated by the healthcare setting and specialty of practice, among other factors. For example, anesthesiologists and emergency physicians are often required to make swift decisions with little time to reflect but instead rely on previous experience and instinct.

The first step in bias education is to address the development of awareness. Bias is frequently unconscious, and one is unaware of the assumptions placed on the people and situations around them. In a recent investigation, emergency medicine resident physicians’ awareness of their own implicit bias increased by 33.3% following an intervention that included a design-thinking framework and a facilitated discussion exploring the perception of bias leading to variation in patient care [2]. This example of improved bias awareness offers significant potential to improve a provider’s approach to patient care. Introducing this type of intervention at earlier stages in medical education is paramount to developing healthcare professionals who strive to be impartial and deliver unbiased patient care in their communities.

There has been a notable, recent increase in the effort to improve diversity, equity, and inclusion (DEI) within
medical education. The aim to increase discussions around DEI topics must include a focus on developing curricular change and offering trainees opportunities to develop clinical skills, particularly related to bias and assumptions within the healthcare setting. Incorporating training scenarios early and often across various disciplines and stages of medical education, including biomedical sciences, clinical medicine, and interprofessional education, can create opportunities for reflection and introspective thinking. These scenarios will challenge students, faculty, and staff to interact together in order to practice and reflect on how their behavior and actions may reveal bias and learn how to mitigate it.

There are multiple avenues to address bias and assumptions in medical education, but the final outcome must produce real change in healthcare and patient outcomes. Whether an institution implements opportunities for future providers to develop an awareness of their bias in a standardized patient case, through a small group discussion in an interprofessional education course or various other activities, it is imperative that medical educators take immediate action to implement purposeful curricular changes addressing bias and assumptions in healthcare. Training learners on recognizing and mitigating bias will improve patient outcomes and develop healthcare professionals that can deliver more equitable healthcare to the communities they serve.

**Gender Equality in Top Positions**

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Mixed-gender teams provide more profit, ensure better collaboration, and are better at networking [3–5]. Yet only 33% of female senior leadership roles in healthcare in the USA are held by women, and in the Netherlands, only one in four full professors is female [6, 7]. Increasingly, women are seen in positions just below the top, but they often do not move further upwards.

There are several important explanations for why fewer women are at the top. One reason is that women tend to work part-time because they are the primary caretaker at home, which makes getting a position at the top more difficult. Second is the unconscious bias because leadership is mainly associated with typically masculine traits, which causes misunderstanding of female leadership. As a result, female leaders will be judged more harshly, even when outperforming their male counterparts. In addition, there is a system-wide problem that makes it more difficult for women to progress to the top. Men often find it hard to be led by a woman. Recruitment is usually male-orientated because it is full of qualities applicants must have, and women are often more insecure about their competence. Finally, there are only a few female mentors and role models who can provide guidance to other highly qualified women [8–11].

Many solutions have been identified by research. For example, it should be more widely promoted that men and women have an equal share in their household. Furthermore, people should try to become aware of their bias, which will take several generations before female leadership becomes redefined. Finally, talented women should be promoted early in their training and provided with appropriate female role models for guidance in their careers [8, 10, 12].

Although the primary solution for gender inequality in leading positions remains to put women in leadership positions, Radboud University Medical Center recently launched a program to obtain more women in leadership positions [13]. The ambition was to appoint ten new female full professors, providing that they are found worthy of professorship and not just chosen because they are women. The organization selected a list of 70 possible candidates, but the committee also started an inclusive campaign in which candidates could nominate themselves or be nominated by someone else. After several intensive application rounds, the committee performed final interviews with thirteen selected female academics. The committee decided to appoint all thirteen remaining candidates due to the high quality of each remaining applicant. Of note, even multiple candidates not selected are expected to reach the necessary level within the next few years. All these candidates that were not selected were offered a restart interview afterward with the chairman of the committee. In this interview, they looked at what candidates needed for support to progress in their careers. The process and the result of this program clearly delineates the existing problem. Although a whole range of high female potentials is present, they are generally less visible and insufficiently supported within the organization.

In conclusion, effective diversification should be taken care of to create an overall improvement in organizations. Women will only end up in top positions by implementing active policies for identifying, promoting, and empowering highly qualified women early in their careers. This way, instead of impairing the careers of highly qualified women, organizations will be able to experience the advantage of female leadership fully.
Impacts of Telehealth During the COVID-19 Pandemic—Increasing Inclusion and Access to Healthcare

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During the COVID-19 pandemic, the medical field turned to technology to continue operating and serving patients. Recent measures demonstrate that telehealth visits in the United States currently make up 38% of total healthcare encounters in volume, most of which are primary care visits [14]. Before the pandemic, telehealth was used for less than 1% of total healthcare encounters. This indicates that telehealth is here to stay, and the medical field must adapt to function and teach within this landscape to best serve patients best.

The advantages of telehealth include its cost-effectiveness, ability to reduce barriers to access, and its potential to increase collaboration among providers to assist in areas facing physician shortages [15]. Importantly, increased utilization of telehealth services has the greatest potential to improve access and increase inclusion in the medical field in rural populations. This population faces a multitude of barriers to access to healthcare that includes access barriers, such as transportation problems, and provider-related barriers, such as doctors who do not speak the same language [16]. Further complicating matters, rural areas have limited numbers of sub-specialty trained physicians, and the United States is projected to face significant physician shortages of 37,800 to 124,000 physicians by 2034 [17]. Telehealth has the potential to ameliorate these barriers, increase access to specialist care, and even connect physicians in other countries to improve access to quality, affordable care [16, 17].

Ultimately, virtual medicine is here to stay. Due to its limitations, telehealth cannot replace in-person healthcare; however, it has the potential to reduce barriers to access to care while increasing the quality of care. Medical education and research should continue to find ways to adapt and support this shift in the field to better serve patients.

Enhancing Cultural Diversity of the United States Physician Workforce Through Integration of International Medical Graduates

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The United States (U.S.) patient population continues to diversify with growth in racial and ethnic minority groups. While the U.S. physician workforce has become more diverse in recent years, a growing discordance exists between physicians’ racial and ethnic backgrounds and their patients [18, 19]. Physicians must become equally diverse to provide culturally sensitive healthcare to all patient groups. The efficient integration of non-US international medical graduates (IMGs) into the U.S. healthcare system can enhance the U.S. physicians’ cultural composition and competency.

In addition to comprising approximately 25% of the U.S. physician workforce, IMGs serve crucial roles in the U.S. healthcare system [19]. IMGs enhance their physician colleagues’ cultural competency by possessing cultural humility, distinct worldviews, and linguistic abilities [20]. IMGs are more likely than U.S. medical graduates (USMG) to go into primary care and serve in underserved rural and inner-city settings [21]. Generally, IMGs practice in locations with higher proportions of patients with similar racial and ethnic backgrounds, promoting culturally sensitive healthcare delivery [22], which is associated with stronger patient-physician relationships, increased patient participation in healthcare decisions, and better compliance with treatment plans [23–25].

Despite their significant contributions, IMGs face numerous challenges when attempting to integrate into the U.S. healthcare system. Obtaining a medical license in the U.S. is an expensive, time-consuming, and complex process for most IMGs [26]. Bias against IMGs exists through the assumption that they are not well trained as USMGs [27]. Paramount to these challenges is the difficulty of obtaining a residency position. The 2022 National Resident Matching Program match rate for non-US IMGs was 58.1%, consistent with past match rates for this group and in stark contrast to the match rates of USMGs, which are constantly higher [28].

Integrating IMGs into the U.S. healthcare system can be enhanced by creating financial and educational resources, addressing bias, and reforming residency selection. Scholarships could assist with the financial burden of licensing, U.S. clinical externships, and residency applications. Creating easy-to-use toolkits with board examination preparation materials, residency application guidance, and state-specific medical licensing guides could make the process more accessible. Implicit bias training and continued research on health outcomes rendered by IMGs could improve their perception. Lastly, in addition to increasing the overall number of residency positions, examining IMGs’ residency applications holistically and considering the clinical experience obtained in their native countries could assist with IMGs residency obtainment.
Breaking Down Barriers: Working Towards a Physician Workforce that Reflects the General Population

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As the U.S. population becomes increasingly diverse, a diverse healthcare workforce will be necessary to provide culturally appropriate care, reduce misdiagnosis, reduce health disparities, and achieve positive patient healthcare outcomes. Race Concordant studies have shown improved patient care, health outcomes, and patient satisfaction when their provider is culturally the same [29]. Despite increasing efforts to create a diverse healthcare workforce, Black or African Americans, Hispanics/Latinos, American Indians, or Native Hawaiians remain underrepresented. Underrepresented in medicine (URiM) is characterized by the racial and ethnic populations that lack representation in the medical profession relative to their numbers in the general population [30]. As of July 2019, African American physicians only accounted for 5% of the healthcare workforce, even though African Americans make up 13% of the U.S. population. Few know the immediate and enduring disproportionate impact of the Flexner Report in 1910 on medical education and medical schools training primarily African Americans. This report led to the closure of five out of the seven medical schools that predominantly trained African Americans [31]. The closure of those schools has resulted in an estimated loss of 35,000 African American physicians. Diversity in the physician workforce has always been and remains a critical issue.

The challenge with increasing diversity begins with understanding barriers URiM experiences when pursuing a medical education. The Tour for Diversity (@tour4diversity) is a group of minority physicians and dentists who visit colleges with many minority students to expose them to medical career options. They are known to hold focus groups at undergraduate institutions to explore perceived barriers to pursuing medical education [32]. A qualitative study from several focus groups found that students questioning a pursuit of medicine faced inadequate mentorship and resources, socioeconomic factors, and strained personal social skills. Working towards breaking down these barriers requires a multi-pronged systemic approach.

From 1980 to 2016, the percentage of medical school matriculants from underrepresented backgrounds rose by only 2.4% [30]. Developing and enhancing current pathway programs is necessary [33], which is accomplished by holding focus groups to assess perceived barriers to offer targeted approaches within our communities. Whether virtual or in person, exposure to the medical profession is valuable and can have a considerable impact.

Additionally, for 51% of first-generation students from a minority background [34], mentoring and advising are crucial to this multi-faceted approach. Research shows that first-generation students begin to encounter obstacles at the undergraduate level. With no point of reference in our families, minorities are impacted most by their mentor(s). However, many of us do not know where to look for a mentor who can provide resources, guidance, sponsorship, and advocacy. One way to participate is by reaching back to your alma mater or local schools to offer mentorship to interested students.

Another critical aspect of recruiting and retaining URiM students is to address mental and physical wellness, primarily due to the increased burnout we have been experiencing since COVID-19 pandemic. Holding wellness seminars where imposter syndrome and other biases are discussed before applying to medical school can also increase minority applicants because many do not pursue where they feel like they do not belong.

Studies have shown physicians from underrepresented backgrounds are more likely to serve in minority and indigent, underserved communities [35]. We must commit to seeing more minority students through successful completion of pathway programs and being advised by an invested mentor, all while incorporating mental and physical wellness. Such efforts will lead to an increased diverse physician workforce that is more representative of the general population, therefore, putting us one step closer to improving accessible healthcare and reducing health disparities.

Declarations

Conflict of Interest The authors declare no competing interests.

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