



Journal of Health and Medical Sciences

Madjer, Nina, Sarmiento, Matilde A., Esparza, Edith, Shankar, Pinakini, Carr, Ivor, and Abulatan, Isaac. (2020), International Medical Graduate (IMG) Mentoring When it Matters: Basic Sciences to Clinical Rotations and What to Know. In: *Journal of Health and Medical Sciences*, Vol.3, No.4, 457-465.

ISSN 2622-7258

DOI: 10.31014/aior.1994.03.04.140

The online version of this article can be found at:
<https://www.asianinstituteofresearch.org/>

Published by:
The Asian Institute of Research

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International Medical Graduate (IMG) Mentoring When it Matters: Basic Sciences to Clinical Rotations and What to Know

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Abstract

One-fourth of the medical doctors in the United States come from international medical schools; they are known as International Medical Graduates, IMGs. Future medical doctors need a guide and specific information which could come by way of a mentoring relationship in order to transition from the Basic Sciences to Clinical Rotations. Now, more than ever the conversations among medical doctors and incoming IMGs need to be happening in order to navigate the transition successfully. IMGs find mentors within their own ranks, from external sources and from medical doctors too.

Keywords: International Medical Graduates, Mentoring, Clinical Rotations

1. Introduction

With the shortage of medical doctors and health care providers in a certain crisis, the United States continues to rely on International Medical Graduates (IMGs) to fill the dire need for medical doctors (American Academy of Pediatrics, 2020) The traditional road to earning a medical degree consists of completing two years of Basic Sciences and moving forward with two more years of Clinical rotations. The purpose of this paper is to provide a voice for the current medical students moving from the Basic Sciences into Clinical rotations. As this paper was developed, the pandemic came to fruition and the need to finalize these ideas became even more pertinent. In order for future medical doctors to successfully complete the lengthy journey, mentors and a measure of guidance are needed to provide support for future doctors. International Medical Graduates (IMGs) make up 25% of the medical doctors in the United States; these future medical doctors come equipped with highly needed skills with the fast-changing population in the United States. At the same time, these hopeful medical students remain in need of mentorship and support.

There are numerous resources available online and hard copy text that provide vetted and unvetted information about the *right* way to be a successful medical student and hopefully a successful physician. Suffice to say, when medical students are bombarded with so much information, it is difficult to know how to determine the most relevant and accurate information. In addition to this, at first glance, some of the information is compiled by persons that have not had the unique experience of being an international medical school graduate. This article intends to be a voice from the field, the voice of international medical students headed to the United States, who have had the unique experience of being an IMG. IMGs need some measure of guidelines since no medical school experience abroad is the same. Most importantly for medical students, little has been written to provide guidance or to lend voice to those IMGs.

2. International Medical Graduates (IMG)s in the U.S. physician workforce

Based on the American Medical Association's (AMA) 2019 Physician Masterfile, IMGs represent 23.6% of the total active U.S. physician workforce, and 22.1% of residents. The *Top 10 IMG Friendly Specialties* as of 2019-2020 NRMP Data include:

1. Internal Medicine
2. Family Medicine
3. Pediatrics (categorical)
4. Psychiatry
5. Pathology
6. Surgery (prelim)
7. Neurology
8. Surgery (categorical)
9. Emergency Medicine
10. Anesthesiology.

IMGs constitute approximately 26% of the U.S. pediatric workforce, and approximately 41% of practicing IMGs are in primary care disciplines (American Academy of Pediatrics, 2020; "International Medical Graduate" n.d.). Most of these primary care settings are either in rural areas or in urban, underserved communities. For this reason, IMGs play a vital role in the care of vulnerable populations in both rural and urban underserved areas. For instance, Dr. Rana Chakraborty, who studied medicine in Antigua and went on to pursue a career in pediatric medicine, readily advocates for IMGs interested in pediatrics. He was the Chair of the American Academy of Pediatrics Section on the International Medical Graduates Executive Committee, and worked diligently to guide up-and-coming IMGs through the challenging process that comes with being an IMG in the United States.

Recently, the United States Medical Licensure Exam (USMLE) changed the way in which Step 1 scores will be assessed. Starting in 2022, all results for the USMLE Step 1 will be pass or fail. Whether this is a good change or not is uncertain; however, one thing to keep in mind is how important it will be to take on a holistic approach and to be sure to be viewed as a well-rounded person and not just as an exam score. For IMG students, the word moving is an understatement; thus, the need for a mentor is even more important. IMG students relocate to another country and acquire a set of invaluable skills which include: cultural competence and adaptability. We know that 25% of all medical doctors in the United States studied in an international setting, and the skills acquired during this experience are much needed during an age of an ever-changing demographic and in the era of the pandemic.

3. Why Mentorship is critical to Future Doctors

Mentorship was first developed in the United States in the 1970s to significantly enhance professional development in the early stages of a career (Garmel, 2004; Kram, 1983). The wellbeing (emotional, physical and professional) of doctors is crucial, both for the individuals themselves and their ability to deliver the best patient care. With increased pressures on healthcare to serve a diverse population, support mechanisms that attend to junior doctors' preparation to serve this population require greater emphasis in medical schools. There is a wealth of research that explores the mentor and mentee interaction in mentoring structures with roles, functions, benefits and challenges highlighted (Connor et al., 2000; Driessen et al., 2011; Overeem et al., 2010; Steven, 2008). The focus of this research is also primarily on professional aspects, such as career progression, career success and career choice (Kalen et al., 2010; Stamm & Buddeberg-Fischer, 2011). Transitioning from medical student to working effectively as a junior doctor might be one of the biggest challenges that a new medical school graduate will face. Having a medical mentorship program can be an effective conduit to supporting the transfer of learning to practicum, increase the student's confidence and allow them to reflect on their professional development. Within the literature there is an acknowledged performance gap that students experience when transitioning from academia to practice (Cervantes et al., 2014; Frei et al., 2010; Kramer, 1974). The early professional years of development can present the following struggles for junior doctors- struggling with increased responsibilities, such

as time management, prescribing, clinical procedures, reporting risks to patient safety, coping in emergency situations, resilience, professionalism and complex communication tasks.

Mentorship becomes critical to future doctors when we begin to address the large diversity gap in medicine and the sciences. Researchers feel this gap prevents our society from experiencing the benefits of a diverse physician workforce and a culturally competent health care system. Underrepresented minorities make up a small percentage of the physician workforce. One way to increase the slow pace representation of minorities and even the decrease in the number of medical school student enrollment from 1997 to 2000 (Fang et al., 2000) could be through a well developed and implemented mentorship program. The lack of diversity in the healthcare system can have ripple effects in other areas, less diversity in medical students means that there is a lack of representation when it comes to senior faculty which in turns affects the agenda for health care policy, bringing often neglected research topics to the forefront, and in the training of future physicians.

New doctors assume their responsibilities gradually over several months while completing their practicum. This gradual release of responsibility is ideal to give new doctors access to professionals that can support them, answer their questions, and provide needed guidance. Creating a mentoring program is critical, especially in a fast-paced working environment in which the development of future doctors that can have a wide range of talents, such as the ability to innovate new services and products, develop visionary strategic skills and provide future leadership capabilities, is essential for their hospitals to sustain themselves (Entezami et al., 2012). Well designed and well managed mentoring programs can also have a significant impact on the financial bottom line of hospitals, this will pave the way to be able to improve their ranking and attract high caliber professionals (Parise & Forret, 2008; Swenson & Shanafelt, 2017).

Understanding mentoring from the perspective of a diverse group of individuals who are embarking on their preparation will ensure that we are able to gather a range of viewpoints. Research from DeCastro et al. (2013) found that there is an improbability of finding a single person who can fulfill the diverse mentoring needs of future doctors and that there is an importance to developing those mentor networks. Mentorship is a vital/critical component for development in academic and clinical medicine. In medicine the term mentor can be used to describe an experienced and knowledgeable person that has the ability to advise his/her mentee in the right path in order for their mentee to attain academic and professional excellence. Initially one of the main goals of mentoring could serve to help the mentee develop an interest in a particular specialty. With quality and committed mentoring a mentee should be gaining a good amount of knowledge in order to be able to choose a professional trajectory that is fulfilling on a personal level that can impact satisfaction with their career choice in the field of medicine.

As with other fields, mentoring is becoming a necessity for minority medical students in order for them to achieve maximum career success (Bronson & Ellison, 2015).

Medical students need insight which can serve as a guide for the transitioning phase from the Basic Sciences to clinical rotations. IMGs may need the additional perspective which they may lose while they are occupied working hard to move through their medical education. IMGs need information as they look ahead and consider future residencies. The assumption is that graduate students know how to behave in a professional manner, but the truth is that in today's era of instant communication, a good reminder is needed. IMGs needed to know about beneficial resources that could help in planning for STEP 1. Students who are spending 10 to 12 hours a day studying may not consider the need to attend conferences, to build networks, and to stay up to date in their medical field of interest. In addition, all of this information must be shared to support future medical doctors who are in a medical school during an unprecedented global pandemic.

3.1 Relationships

Mentoring highlights the value of encouraging and enabling good communication and ensuring effective relationships both inside and outside of the work environment.⁷ Improved relationships and communication provide 'social capital' which promotes a doctors' mental health, wellbeing and engagement (Steven et al., 2008). In a study by Steven et al. (2008), interviewees suggested mentoring activities enhanced professional practice and

collegiality in both mentees and mentors, through facilitation of improved working relationships and teamwork. The authors suggest this collegial approach fosters peer support, which protects against feelings of isolation and adds to workplace satisfaction, an important component of wellbeing.

3.2 Physical and Psychological Health

A well designed and implemented mentorship program will promote the importance of a safe working environment, and healthy behaviors, to ensure better physical and psychological health. The components could include stress, anxiety, satisfaction, accomplishment, optimism, confidence, control, empowerment and safety (Dodge et al., 2012).

3.3 Better Work Environment

Mentorship programs also need to ensure the working environment is engaging and supportive and that it gives the junior doctors a voice. Better work is further ensured by managerial styles and organizational cultures which facilitate mutual trust and respect (Wilson et al., 2017).

4. Looking for a Mentor

Every medical student can think of that one person who provided guidance towards a brighter future or provided inspiration to dream big. Or is this a cliché? According to Pisani (2018), women in medicine say they never had a mentor during their training. In 2020 and especially during this pandemic, this notion seems unacceptable. Mentors play such a critical role in a person's life and even more so in that of a medical student. The impact a seasoned mentor has on a future doctor can change the course of a life. Generations to come should take the time to reflect at those moments when the challenges and obstacles were so great that the only question left to ask is, "What would this journey have been better with a mentor?" If the answer is a resounding yes, then the immediate response and call to action for all generations should be to serve as a mentor for someone who needs one.

Medical students are in need of mentorship and guidance from seasoned individuals with experience. In medical school in particular, a supportive environment must exist and be created as opposed to a competitive one. The idea is for the medical profession to be thinking in terms of long-term goals that encourage future residents who will be practicing physicians in the age of a pandemic. After all, the ideal setting consists of one which all medical students and medical doctors look forward to.

Nina Madjer, a University of Medicine and Health Sciences- St. Kitts (UMHS) medical student in her first clinical rotation in Internal Medicine at Weiss Memorial Hospital in Chicago, hopes to be a resource to any and all students who are going through the same steps she went through in her previous semester in the Basic Sciences. In thinking of ways to share advice or tips about upcoming semesters, she began to share ideas through an online professional learning community using Edmodo ("Edmodo" n.d.). The need to share information about topics ranging from housing to the process of transitioning fueled the desire to support her classmates.

5. Professionalism Communication Mentorship

How medical students demonstrate the highest form of professionalism? Well, as a graduate student it should be intuitive and it should go without saying, but unfortunately, there are more instances of students, residents, and attendings who may not be aware that they are in fact being unprofessional. Clear expectations and qualities of professionalism include: demonstrating respect, compassion, and integrity, respecting patients' values, religious beliefs, and backgrounds, having compassion for the existing situation, and respecting colleagues regardless of their job title or description. Confidentiality is part of this effective professional communication. In order to provide the best patient care, future medical doctors need to demonstrate a commitment to ethical principles as they pertain to clinical care, i.e. confidentiality of patient information and informed consent. The doctor-patient relationship implies trust. Part of the job includes protecting that trust. Professionalism can be reflected in the way medical students dress consistent with that of a medical professional. Wearing attire that is clean, pressed, and reflects a sense of confidence matters.

6. Transitional Housing

Every medical student understands the experience of moving in order to start the medical school experience before the pandemic and during the pandemic. However, one of the most cathartic and symbolic physical and geographical moves includes the moment when medical students go from finishing up the Basic Sciences and beginning the transition to Clinical Rotations. Even though every university provides guidance and plenty of useful information, at the end of the day, medical students rely on each other for recent information.

The first question which a medical student might have is whether or not to get a roommate? What are the benefits of literally living with another person during one of the most stressful times in the life of a medical student? For starters, sharing the rent with someone makes it more financially viable. Additionally, medical students know that this type of housing is consistently very short-term. The best resources to begin this search include university databases and university staff.

University staff understands student needs, and they consider all factors. They have updated information, and they also have a very good understanding of local rental properties and rates based on existing rental markets. For all of those medical students burning the midnight oil and leaving the hospital late at night, university staff can provide critical guidance regarding safe locations to live and within reasonable distances from required locations for clinical rotations. Additionally, every semester varies in medical schools. As class sizes grow or are reduced, options for reasonable rental properties vary, and in this case, the best source for useful information will always be the university faculty and staff.

Is it all right to talk to fellow classmates and colleagues about transitional housing? The answer is always yes. However, keep in mind that this information will vary like anything you might find on a social media review forum unlike popular reviews available on Yelp. More than likely, each university will host a student social media page which will allow existing and former students to post useful information related to experiences with different locations and rental properties.

In many ways, these social media forums provide informal mentoring. The voices of previous students provide a snapshot view of existing and previous experiences. Through this type of informal feedback and sharing of information, medical students provide intentional and somewhat unintentional mentoring. The primary usefulness of mentorship is that the information is just that, useful. Because students have a shared experience, they can authenticate and verify a slew of information, like prices, affordability and rates.

In today's era of social media and technology, the veracity of information is easy to challenge by simply speaking to a peer or a university staff or faculty member. Every medical student understands that every penny counts; therefore, in order to confidently put down a deposit on a rental property, the dialogue or informal conversation with a mentor during this phase of medical school is fundamental.

7. Organization and Planning Ahead

Another way which medical students need mentorship is in the area of organization. The abundance of information and the delivery of too much information can be very overwhelming for a person who is in transition. What are the vital things a pre-clinical rotation student would want to know? For starters, it can be invaluable to narrow down the scope of what resources to use. Also, the creation of a schedule can be life-changing because an organized schedule which focuses on time management can help students hold themselves accountable.

Here are the top two things that can make all of the difference, in terms of getting organized when studying for important licensure exams: **Cram Fighter**: This is an online algorithm created for students in medicine (Cram Fighter, 2017). This program includes all of the available and relevant study resources, from First Aid to Sketchy and even more. Therefore, choosing what to rely on in order to study, CramFighter can create a daily schedule which dictates the amount of time it should take to complete all of the tasks which are looming.

Nearly every medical student will find value in using this program, and each of those students will also wonder what the experience would have been like without it. This program is a saving grace in order to prepare for Step. The **Erin Condren Planner** website has planners for all occasions, from student academic planners, to meal prep planners and even budgeting planners; this site is a must-have for all medical students (Erin Condren, 2020).

The truth is that every second of a medical student's life has to be planned and organized. Academic planners are useful to prepare specific study plans. Notebooks are needed for Internal Medicine notes, and smaller notebooks for "on rounds" notes that the attending mentions while with patients are invaluable. Smaller and portable notebooks are convenient enough that they can just be tucked easily into any white coat. With so much responsibility and so much at stake, any small tip to keep on top of things makes a world of difference.

8. Networking

One simple way to receive informal mentoring is by attending or presenting at conferences, preferably national ones. After the crucial step of passing the USMLE Step 1 is passed, one good recommendation for all medical students entering into clinical rotations is to consider attending conferences which focus on specialties. Here are a few considerations to discuss with a mentor:

- American College of Physicians Meeting (Internal Medicine)
- American Academy of Pediatrics Meeting:
- American Academy of Family Physicians Meeting (Family Medicine):
- American College of Surgeons Meeting
- American College of Obstetricians and Gynecologists

Many others exist, but these are a few to start thinking about during the transitional period.

It is important to get to know the program directors, to know a little about the hospitals they are from, and to have some knowledge of their programs so it is easier to start up a conversation. Of course, it is a good idea to have a curriculum vitae handy. A mentor can also give objective feedback to a CV and give a fresh perspective regarding what to include and what to highlight.

9. Residency Searching

The mentoring relationship is long-term and continuous as each phase of a career in medicine is completed. Before clinical rotations are completed and before all examinations are taken, medical students may want to be researching potential residencies. Some considerations could include elective rotations. It is possible to potentially schedule an elective rotation well in advance. One useful resource to discuss with a mentor is FREIDA <https://freida.ama-assn.org/Freida/> This website is a great resource for looking up different specialties in specific regions of the country and which programs are more "IMG friendly", which becomes very pertinent for IMGs.

As per the new change in USMLE Step 1 being pass/fail, it becomes more important than before that an IMG highlights his /her strengths in residency match application. A mentor can provide assistance to an IMG in terms of publications, participation in professional meetings and conferences or additional training which might boost the residency application.

10. Staying Active During a Pandemic

Professional Development courses demonstrate a desire to continue to learn and to be productive when options are limited. Oftentimes, mentoring relationships, ideally, include a one on one sit down and a conversation with someone who can provide sound advice and concrete examples about how to move forward. However, informal mentoring can also occur through continuing education courses and by learning from experts in different fields. Here are some examples of on-going courses which can offer great insight into different fields:

- Sex and Gender Health Specific Learning Modules → Texas Tech University Health Sciences Center
- Mechanical Ventilation for COVID-19→ Harvard University
- IMG Roadmappers course→ Created by Dr. Nina Lum
- Chicovidsitters → volunteering to support frontline workers

Other ideas include reviewing for the next clinical rotation. Read a medicine-related book, or find a virtual annual specialty conference to attend.

11. Medical Podcasts

Medical students born in the age of technology now rely on podcasts and innovative ideas to receive updates and research. Medical podcasts allow for opportunities to listen and to learn while on the go. They offer interesting and informative perspectives for IMG candidates who may be living abroad. They are fun to listen to while in transition or while waiting for exam results. These podcasts provide yet another chance to hear from medical professionals in the absence of a formal mentor. Some examples include:

Reconciling Medicine→ Dr. Renee Paro & Dr. John Paro

As A Woman: Dr. Natalie Crawford

The IMG Roadmap→ Dr. Nina Lum

The Undifferentiated Medical Student Nutrition Rounds → Dr. Danielle Belardo

Surviving Medicine→ Dr. Frank Cusimano

More Than A Pretty Face→ Dr. Azideh Shirazi Curbsiders

12. Burn Out

Some of life's highs and lows can be expected and managed, but it can be easy for medical students to feel alone and helpless even more so during this pandemic. These emotions can be triggered by many factors, which can include: studying for hours a day, for weeks on end, and without achieving the desired results. It is common for medical students to be overcome by self-doubt and worry. Because of these shared experiences, IMGs need to know they can lean on friends, family and mentors. The support of a mentor and of the relationships can make all of the difference in the life of an IMG.

13. Recent Changes in Testing

The recent pandemic has brought on a series of new challenges for all medical students. Existing Certification requirements include the following:

1. Your medical school must be listed in the World Directory of Medical Schools
2. Completed ECFMG certification application
3. Completed/passed USMLE Step 1 and Step 2 CK
4. Completed/passed USMLE Step 2 CS (Temporarily not required; see adjusted requirements in place on their website)
Currently the Step 2 CSK has been replaced by the OET for IMGs.
5. Medical School Diploma with date of graduation

14. Social and Emotional Wellness

Finally, every university has a school counselor on board who can provide support for maintaining a healthy mindset and to have a measure of emotional support during these tough transitions. After all, there is so much at stake. Medical students are consistently reminded of the need to be empathetic, but it would not be surprising to find out that these students feel isolated and sometimes misunderstood. Medical students need empathy and sympathy also. They are embarking on one of the most noble professions. They are worthy of help and of mentorship wherever they can find it. Therefore, even when one person cannot provide all of that is required to support one medical student, everyone can find one small way to mentor and to support a future medical doctor who may be caring for a loved one in the near future.

Acknowledgments

Special acknowledgement to Alejandra Esparza Young for her contributions now and as a future medical doctor.

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