



International Journal of Translational Medical Research and Public Health

COMMENTARY MEDICAL EDUCATION EQUITY

An Innovative Approach to E-mentorship for Black Applicants to Graduate Medical Education (GME) Programs

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Received: 14 December 2023

Accepted: 30 January 2024

Published: 18 March 2024

DOI

[10.25259/IJTMRPH_3_2023](https://doi.org/10.25259/IJTMRPH_3_2023)

Quick Response Code:



ABSTRACT

The path to medical education is complex and challenging. This is particularly true for Black applicants seeking to pursue graduate medical education. These individuals encounter a multitude of challenges due to disparities in access and resources. These hurdles include difficulties in navigating the residency application process and lower matriculation rates. To address these issues, medical schools need to support diverse and innovative mentorship initiatives, including E-mentoring that is specifically tailored to Black applicants. This article examines the benefits of E-mentoring from the perspectives of our innovative E-mentorship platforms.

Keywords: Mentors, Internship and Residency, Graduate Medical Education, Black, Equity

The concept of E-mentoring is empowered by synchronous and asynchronous computer-mediated communication, providing a novel approach to cultivating successful mentor-mentee relationships through virtual teams.^[1] Individuals pursuing graduate medical education (GME) encounter a multitude of challenges; however, Black applicants must navigate this process by dealing with both explicit and implicit racial bias as well as systems that do not prioritize diversity, equity, and inclusion.^[2] Due to these persistent barriers, Black students face higher attrition rates from medical school, due on their own accord or due to being dismissed.^[3]

In comparison to their White counterparts, Black applicants to GME programs have higher odds of not matriculating to such programs, even when adjusting for race, sex, and ethnic identities. This suggests that these applicants may not be as prepared for the application process or receiving the appropriate guidance to become a successful applicant as their White peers.^[3-4] These challenges unequivocally arise due to disparities with respect to access to resources such as the United States Medical Licensing Examination (USMLE) test preparation and research exposure, lack of role modeling, and unfamiliarity with navigating the application process.^[5-6] Consequently, Black applicants are positioned at a disadvantage in achieving successful entry into a medical specialty. This is further underscored by Black people composing 13% of the American population yet only represent 5% of the entire American physician workforce.^[7-8] Promoting diverse and representative mentorship could potentially help bridge the recruitment and retention gap in residency programs and subsequently, optimize patient outcomes.^[9-10]

Giving voice to these challenges and acknowledging the demands are necessary for Black residency applicants to feel seen, heard, valued, and worthy of being in the medical profession. As

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Black medical educators, we have encountered and interacted with myriad Black students eager for advice, guidance, and mentorship in this complicated journey. Dr. Joycelyn Elders, the former Surgeon General of the United States, appropriately stated that *you are not able to become what you don't see*.^[11] Therefore, we created social media platforms showcasing real-world examples of Black physicians in action.

One of our inaugural E-mentorship platforms is *Black Men in Medicine*. With over 2000 members, from pre-medical students to well-established physicians, it is designed to connect individuals interested in the advancement of Black men in the medical field via Facebook®. Black Men in Medicine serves as a virtual community where individuals can engage, mentor, and fellowship on significant topics that matter to us. These include experiential learning opportunities, scholarship resources, test preparation information, and updates on upcoming events. Group members also offer, ask, and receive advice from one another. We have observed many Black pre-medicine and medical students seeking guidance with the Medical College Admissions Test (MCAT), USMLE, and the residency and fellowship application process. Through interactions with seasoned physicians, serving in the roles of mentors, the students have received the necessary advice to help advance them in their medical career journey.

BroDocTalk is our most recent E-mentorship platform. It is designed to provide Black medical students and residents with an asynchronous form of mentorship. It is a YouTube® series, which features dynamic interviews with accomplished Black physicians across varying specialties. These physicians provide valuable perspectives about their life experiences within their individual specialties. They highlight critical factors of their career trajectories, such as how they became interested in medicine, obstacles they faced applying to medical schools and training programs while Black, strategies for overcoming those challenges, and their current practice environments. We have produced ten episodes to date, and each episode is informative and enlightening and serves as a source of inspiration and motivation for prospective and practicing Black physicians. Additionally, the featured physicians offer specific advice to listeners, equipping them with valuable lessons such as the importance of celebrating small achievements, self-care, and tangible steps they may take to help shape and advance their careers.

Between both platforms, numerous opportunities for one-on-one E-mentorship have been established. By sharing the *BroDocTalk* episode featuring a psychiatrist with the Facebook group, a student expressed interest and reached out to us, enabling a meaningful connection between the aspiring medical professional and the interviewed psychiatrist. This collaboration highlights the power of online platforms in

fostering mentorship and networking within specialized communities. This is the space where private and honest conversations may occur, promoting growth in both mentees and mentors.^[12] The milestones achieved by both mentors and their mentees are delineated in Table 1.

While the concept of E-mentoring may exhibit differences when compared to traditional face-to-face mentoring, the model does offer a more flexible approach to reaching a broader group of Black applicants. This could significantly benefit the applicants from the expertise and advice of seasoned Black physicians, who have already found the formula for success in medicine. Moreover, this approach adheres to the same principles and processes of the traditional systematic mentor-mentee model, as demonstrated in Figure 1 entitled “Phases of the relationship between the mentor and mentee”. E-mentorship could offer mentees the opportunity to establish networking connections for future professional interactions beyond the physical confines of those that could be done in person. For example, a virtual mentor/mentee relationship could bring forth career advancement prospects that a mentee may not otherwise receive, particularly if local traditional mentors are lacking. This could include, but is not limited to research generation and publication, sponsorship for the mentee, training and job prospects and life-long friendships. We envision E-mentorship would most benefit those who are not privileged to have traditional mentorship opportunities or for those whose traditional mentorship has failed to be fruitful.

We do recognize that E-mentorship, while potentially transformational to Black trainees, can also have its limitations. The virtual nature of E-mentorship could limit the human element of a mentor/mentee relationship, as one is not meeting in person. Furthermore, E-mentorship requires one to have access to a computer with a reliable

Table 1:

Mentor Milestones	Mentee Milestones
<ul style="list-style-type: none"> • Provide Community Support • Inspire and motivate. • Offer networking opportunities. • Promote work-life balance. • Build trust. • Facilitate skill development. • Give feedback. • Promote Independence 	<ul style="list-style-type: none"> • Embrace a sense of belonging. • Inspired and motivated. • Building a network. • Establish work-life balance. • Develop trust. • Receive guidance. • Apply feedback. • Gain independence

Black Men in Medicine and BroDocTalk: Mentor-Mentee Milestones (Young OM, Fuller JC, Lewis HW). An Innovative Approach to E-mentorship for Black Applicants to Graduate Medical Education (GME) Programs.

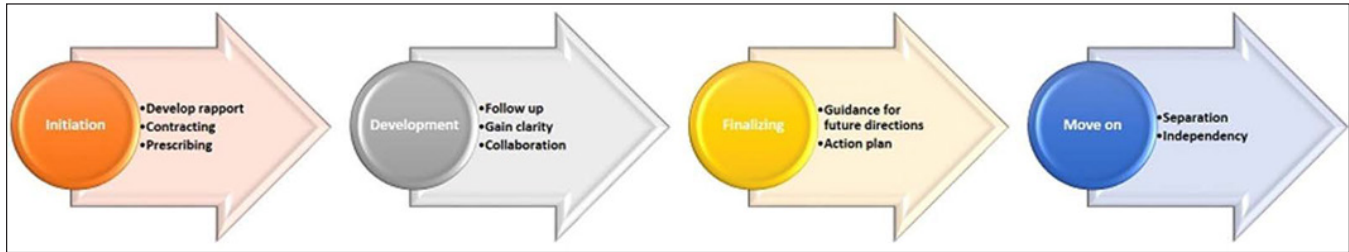


Figure 1: Demonstrates the four specific phases of the mentor/mentee relationship. Such phases include initiation, development, finalization, and moving on.

internet connection. For those who may be economically disadvantaged, technology presents itself as a barrier to reaping the benefits of E-mentorship.

E-mentorship could be a stepping stone towards having increased physician-patient race concordance. The physician-patient relationship is a most potent dyad. A physician has the privilege of being able to provide care for their patient, giving of themselves in a most selfless manner. The patient is at their most vulnerable, trusting that their physician will see them as more than just a list of systems but will recognize their own humanity. Multiple studies have suggested that race-concordance in the physician-patient relationship can improve healthcare outcomes and mitigate disparities in care.^[13-14] Snyder et al. have shown that when Black physicians take care of Black patients, there is lower incidence of mortality, prolonged life expectancy and improved healthcare outcomes measures.^[13] Given the current maternal mortality and morbidity crisis among Black women in the United States, with Black women dying at three times as high as the rate of their White counterparts, further research on concordance, mentorship, and the healthcare outcomes thereof is warranted.^[15]

Black Men in Medicine and *BroDocTalk* offer cost-effective asynchronous and synchronous opportunities for the support students so desperately and deservedly require. We invite you to access the platform using the following links:

BroDocTalk YouTube®: <https://www.youtube.com/@brodoc-talk9527>

Black Men in Medicine Facebook Group: <https://www.facebook.com/groups/BlackMenInMedicine>

Since the launch of our E-mentorship platforms, Black applicants have garnered increased access to clinical spaces. For example, Black students in post-baccalaureate programs have participated in-person clinical shadowing opportunities with general internal medicine, obstetrics and infectious disease. Students have had the chance to have mentors review their residency application essays while receiving counsel on how to excel in the virtual interview environment. These

opportunities have proved invaluable for those who may not have garnered such mentorship. Most students who have used Black Men in Medicine and BroDocTalk have successfully matriculated to residency in their chosen specialty. Further qualitative work examining the specifics of these relationships and their successes is warranted.

Ideally, medical schools should engender cultures of inclusivity and actively endorse diverse and unique mentorship opportunities. This could include developing and instituting E-mentoring programs to support Black applicants throughout their matriculation. By embracing E-mentoring, specifically tailored to Black applicants, these individuals will be better positioned for future success in medicine, and more eager to reach their fullest potential. In environments where Black applicants may experience isolation or not receive the appropriate mentorship or guidance, an online resource is supportive and beneficial for 1) creating a sense of belonging, 2) fostering national networks for future collaboration, and 3) ensuring that the next generation of Black physicians not only receive the support needed for their professional journey but that they are also inspired and empowered to succeed and advance in the medical field.

Key Messages

E-mentorship programs are additional tools that Black applicants to GME programs can use for professional development.

Acknowledgments

The authors would like to thank all the speakers who have contributed to the YouTube channel.

COMPLIANCE WITH ETHICAL STANDARDS

Conflicts of Interest

The authors declare no competing interests.

Financial Disclosure

Nothing to declare.

Funding/Support

There was no funding for this study.

Ethics Approval

The Institutional Review Board approval is not required.

Declaration of Patient Consent

Patient's consent not required as there are no patients in this study.

Use of Artificial Intelligence (AI)-Assisted Technology for Manuscript Preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

Disclaimer

None.

REFERENCES

- Rowland N, Kimberly. E-mentoring: An innovative twist to traditional mentoring. *J Technol Manag Innov.* 2012 Mar; 7(1):228-237.
- Nguemni Tiako MJ, Ray V, South EC. Medical schools as racialized organizations: How race-neutral structures sustain racial inequality in medical education-a narrative review. *J Gen Intern Med.* 2022 Jul;37(9):2259–66.
- Nguyen M, Cross J, Chaudhry SI, Cunningham D, Desai MM, Mason HRC, Boatright D. Association of sex and ethnoracial identities with attrition from medical school. *J Gen Intern Med.* 2022 Nov;37(14):3762–5.
- Nguyen M, Sarwat CI, Desai MM, Hajduk AM, McDade WA, Fancher TL, *et al.* Rates of medical student placement into graduate medical education by sex, race and ethnicity, and socioeconomic status, 2018-2021. *JAMA Netw Open.* 2022 Aug 1;5(8):e2229243.
- Jones AC, Nichols AC, McNicholas CM, Stanford FC. Admissions is not enough: The racial achievement gap in medical education. *Acad Med.* 2021 Feb 1;96(2):176–81.
- Williams M, Kim EJ, Pappas K, Uwemedimo O, Marrast L, Pekmezaris R, *et al.* The impact of United States Medical Licensing Exam (USMLE) step 1 cutoff scores on recruitment of underrepresented minorities in medicine: A retrospective cross-sectional study. *Health Sci Rep.* 2020 Apr 20;3(2):e2161.
- American Association of Medical Colleges. Table A-9: matriculants to U.S. medical schools by race, selected combinations of race/ethnicity and sex, 2017–2018 through 2020–2021. [Accessed 2023 Oct 24]. Available from: <https://www.aamc.org/media/6031/download>.
- Mora H, Obayemi A, Holcomb K, Hinson M. The national deficit of black and hispanic physicians in the US and projected estimates of time to correction. *JAMA Netw Open.* 2022 Jun 1;5(6):e2215485.
- Dawkins A and Grier C. It takes a village: guidance on mentoring black residents and fellows. *J Grad Med Educ.* 2021 Jun;13(3):329–31.
- Rotenstein LS, Reede JY and Jena AB. Addressing workforce diversity – a quality-improvement framework. *N Engl J Med.* 2021 Mar 25;384(12):1083–6.
- Roy L. 'It's my calling to change the statistics': Why we need more black female physicians. *Forbes.* [Accessed 2023 Oct 24]. Available from: <https://www.forbes.com/sites/lipiroy/2020/02/25/its-my-calling-to-change-the-statistics-why-we-need-more-black-female-physicians/?sh=42258bea56a5>.
- Chong JY, Ching AH, Renganathan Y, Lim WQ, Toh YP, Mason S, *et al.* Enhancing mentoring experiences through e-mentoring: A systematic scoping review of e-mentoring programs between 2000 and 2017. *Adv in Health Sci Educ.* 2020 Mar;25(1):195–226.
- Snyder JE, Upton RD, Hassett TC, Lee H, Nouri Z, Dill M. Black representation in the primary care physician workforce and its association with population life expectancy and mortality rates in the US. *JAMA Netw Open.* 2023 Apr 3;6(4):e236687.
- Otte SV. Improved patient experience and outcomes: is patient-provider concordance the key? *J Patient Exp.* 2022 May 29;9:23743735221103033.
- Montalant KE, Ettinger AK. The racial disparities in maternal mortality and impact of structural racism and implicit racial bias on pregnant black women: A review of the literature. *J Racial Ethn Health Disparities.* 2023 Nov 13. doi: 10.1007/s40615-023-01816-x.

How to cite this article: Young OM, Fuller JC, Lewis III HW. An Innovative Approach to E-mentorship for Black Applicants to Graduate Medical Education (GME) Programs. *Int J Transl Med Res Public Health.* 2024;8:e003. doi: 10.25259/IJTMRP_3_2023