PERSPECTIVES

Twelve Tips to Succeed as Health Profession **Clinical Educator in Resource-Limited Settings**

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Abstract: Health professions education is one of the pillars of academic medicine; however, clinical educators often lack the appropriate resources to succeed in this field. Examples of these challenges include: lack of support for faculty development, mentorship, and high cost of resources, when available. In addition, challenges such as the Coronavirus disease (COVID-19) pandemic can affect healthcare personnel who are already struggling to provide adequate patient care while attempting to succeed in the role of educator and supervisor of trainees. Clinical educators face more challenges particularly in low-middle income countries as the limitations are more prominent and become key barriers to success. Similarly, due to COVID-19, these challenges can be far more evident in disadvantaged geographical, economic, and academic environments even in the United States. Herein, in this perspective paper, we define resource-limited settings in medical education, provide an overview of the most common barriers to career development as a clinical educator, and offer practical strategies to overcome some of these shortcomings.

Keywords: resource-limited settings, medical education, health professions educator, global public health

Introduction

Clinicians who are working in Resource Limited Settings (RLS) often lack the appropriate setting and instruments to succeed to become a clinician educator and advance in their field. Resource limited settings shall be defined as those circumstances affected by lack of funding, poor access to equipment, supplies, inadequate infrastructure, and fewer trained personnel.^{1,2} RLS are not only evident in low-, middle-income countries (LMIC), in fact, Coronavirus disease (COVID-19) has shown us how and what RLS truly is. The literature shows emphasis on key domains and lenses to overcome some of these challenges using a materialeconomic lens, discursive-cultural lens, and socio-political lens.³ Challenges such as the COVID-19 pandemic in 2020 demanded rapid innovation and accelerated education of healthcare workers to assess emerging evidence, restructure resources, and reshape public health emergency strategies. These unprecedented circumstances significantly affected the role of health profession educators to train the upcoming generations of healthcare workers in an efficient and innovative way.⁴⁻¹²

In today's peri-pandemic era, healthcare professionals in resource-limited settings are still struggling to balance patient care and foster medical education. Different types of novel challenges and barriers continue to and disrupt educators' career development, mentorship, professional networking, and research opportunities. The COVID-19 pandemic impacted the global medical community and reminded us that regardless of our healthcare system resources, we are all equally vulnerable when urgent patient care needs displace resources for teaching and education. The purpose of this perspective paper is to provide 12 tips that can be applied in a broad range of RLS across the globe to foster success for clinicians interested to advance in their field to become a Health Profession Educators. These 12 tips are being put together based on the evidence from the literature as well as the author's own experience in working at an RLS facility.

Tip I

Developing Your Identity as a Healthcare Profession Educator

Due to the demanding nature of healthcare systems, health professionals often overlook their role as educators. Most health professionals possess collaborative skills and are active problem-solvers who teach, administer, develop curriculum, and have scholarly roles in addition to their clinical practice or patient care. Hence, it is important to self-identify as a Health Profession Educator in one's own environment in order to acknowledge and overcome the challenges and barriers that preclude professional development. After identification as an educator within the hospital, local committees/ chapters, and national societies, it is important to identify one's academic goals within the field. Being vocal and open regarding one's interests and academic aspirations are significant as it invites opportunities and collaborations that would ultimately aide in one's pursuit of excellence.

Tip 2

Acknowledge the Resource-Limited Setting You Work at

A health professional working in a High-income country (HIC)- or Low- and Middle-Income Country (LMIC), may experience multiple resource-limitations surrounding clinical practice or patient care. As previously stated, RLS can be defined as circumstances affected by the lack of financial resources to cover healthcare costs, leading to poor access to diagnostic equipment, hospital supplies and infrastructure, with fewer trained personnel. Limited resources inevitably lead to suboptimal standards of care in educational, clinical, and research environments.^{2,13} Therefore, the impact of RLS extends beyond healthcare-related inequalities and indiscriminately impacts global medical education across all types and graduate levels of health professions. Notably, the development of health profession educators within RLS is often restricted by shortages of social professional activities (ie, networking), financial (ie, external funding), and knowledge (ie, mentorship) resources.^{1,14,15} Thus, acknowledgement is a key initial factor in the process of overcoming these limitations.

Tip 3

Have a RLS Reality Check!

Health professionals who teach and do scholarly work are essential to the future of medicine and healthcare. To support those who want to pursue academic careers (ie, teaching and scholarship) that find themselves in suboptimal environments, we must bridge the gap, create collaborations, and provide institutional and societal support to their career development. These deficiencies are not limited to just LMIC; specific areas of even high-income countries (HIC), such as the United States, lack a well-developed structure for professional development in places such as rural areas and veteran hospitals.^{16–18} Similarly, academic and community-based medical centers worldwide can face many of these challenges, often due to variations in protocols, training requirements, available graduate and continuous medical education, and access to federal research or insurance funds. Specially, in medical education, RLS are often underestimate particularly within LMIC, where they have been prevalent for decades. Similarly, RLS are overlooked in HIC due to the misconception that these countries have endless opportunities and supplies.¹⁹

Tip 4

Separate Barriers from Challenges

Distinguishing between challenges and barriers allows for a more strategic allocation of resources to foster success, as they require different approaches. Barriers tend to obstruct or halt progress, while challenges tend to delay or hinder progress. Challenges are better tackled intrinsically by building collaborative resources, while barriers are tackled extrinsically by modifying or circumventing the limitations. For example, a common barrier in pursuing a research project may be the lack of research funding, which could potentially derail such projects entirely. In this case, an extrinsic effort (such as an educational grant from industry/government or local societies) could provide the necessary funding.

Conversely, a challenge, such as a lack of grant-writing experience, is more effectively addressed internally through teamwork, courses or workshops. Disentangling barriers and challenges can facilitate the identification of solutions tailored to the educator's specific circumstances.

Tip 5

Education Projects are Also Research Projects

Bear in mind that medical education projects, as basic science or clinical research follow a hypothesis-driven strategy, with exception to qualitative methodology projects, with measurable outcomes, and interventions, but often include educational approaches rather than a drug or treatment exposure. Translating basic or clinical research methodology to medical education projects can, for example, address the lack of trained professionals in medical education and research methodology. Hence, a good place to start is by trying to apply for intramural and/or extramural funds in the area of interest related to education and academic medicine. The development and refinement of medical education requires both intramural and extramural support to overcome well-established financial hardships prevalent in all RLS.

Tip 6

Be Intentional About Networking and Diversity

While diversity has been at the forefront of conversations about increasing the number of underrepresented communities in medicine, inclusion and equity are often overlooked. Diversity, equity, and inclusion efforts are crucial to enhance accessibility to medical education resources across a wide range of, academic- and community-based medical institutions. Inequalities in the current medical education structure manifest in various forms within both academic and non-academic centers in different ways. Diversity showed its importance in LMIC and scholars are asking for more in that area.^{20–22} To foster professional development and advancement as a Health Professions Educator (HPE) it is essential to initiate networking activities locally, followed by national and international conferences or organizations. This approach facilitates collaboration, expands access to opportunities and promotes the pursuit of excellence in medical education. This was shown in a qualitative study in Sri Lanka where collaboration and professional networking were one of the themes of the study.³

Tip 7

Leverage Social Media to Advocate for Medical Education

The importance of enhancing visibility has gained significant traction in academic medicine. The proliferation of the internet and social media has not only emerged as a platform for connecting and fostering dialogue among educators with shared interests but has also opened doors for collaboration on educational projects. Social media has enabled the education community to support the dissemination of knowledge, provide access to educational events and even seek mentorship in the process.²³ Digital scholarship and Free-Open-Access-Medicine have gained popularity post-pandemic simpler and streamlined mode of education. Identifying oneself on social media as an educator and revealing one's interests helps bring together networks of people with similar interests and goals creating collaboration, innovation and opportunities which may have not existed before due to lack of resources.^{23,24} There are social media applications where the educator can join selected groups to exchange educational related resources as well.²⁵ Lastly, it is critical for clinical educators to also acknowledge and pay attention to digital literacy and competency as this tip relies heavily on being competent in technology.²⁶

Tip 8

Become a Mentor and Mentee

Mentoring encompasses both coaching and educational aspects. Mentoring requires generosity of time, the empathy and willingness to share knowledge and skills, and an enthusiasm for teaching. Remember RAS: Reach, Ask, Show! One example of a mentoring service provided to students in an academic institution is at the American University of Beirut in Beirut-Lebanon (AUB), which has few research mentors. AUB has created the Medical Research Volunteer Program (MRVP) which targets undergraduate students interested in the medical research field early on in their academic career and matches them with mentors to become part of a research team where they observe and aid on a volunteer basis.^{14,15}

This can result in a win-win between both mentor and mentee by having an enhanced curriculum vitae that highlights educational duties and potentially, publications.

Tip 9

Attend Scientific and Educational Conferences

Aside from financial and human resource limitations, there still exists inadequate access to technology, organizational structures, and physical facilities to support the services needed to advance medical education. Unifying efforts at the national and international level are developed to transfer knowledge and training to health profession educators particularly in a conference/ workshop setting. These efforts include educational programs organized by universities for in-person or online participation, as well as programs led by non-profit organizations and universities, which typically offer resources to assist LMIC hospitals in establishing departments, roles, and career-advancement programs.^{1,7} Remarkably, the pandemic sheds light on the importance of virtual conferences and their significance in enhancing global medical education.²⁷ While virtual platforms may lack the depth of in-person interaction, they reach a larger audience of educators that are now able to attend despite clinical, financial and social challenges. Further, conference recordings provide access to relevant lectures and presentations for a longer period of time. Another benefit of attending and joining recognized organization conferences is the opportunity to belong to local and global chapters aimed to expand professional networks beyond one specific country, hence targeting a broader representation of health profession educators.

Tip 10

Dare to Lead!

Healthcare landscape is intricate and multi-faceted. The ability to navigate negotiations and influence others is crucial for an individual's personal effectiveness. To build a cohesive and effective team, one must cultivate and practice leadership skills, that will ultimately contribute to medical education and patient care. Essential leadership skills include establishing a clear vision, adept conflict resolution, and mastery of providing constructive feedback. Assuming a leadership role in a domain that fosters inspiration, and a visionary outlook is the most effective approach for enhancing health profession education. There is a dire need to mentor investigators in LMICs to reduce inequities in global health leadership. If left as is, the current environment will continue to perpetuate the same cycle of inequities, where privileged mentees become global health leaders driving the development and a proportion of HPE will remain stuck in the same role, unable to advance their career nor contribute to the field meaningfully. Therefore, having the leadership skills will empower the clinical educator to know how to manage change, how to advocate for resources, inspiring others, and more.

Тір I І

Keep Records of Shared Resources for Health Professions Educators

Challenges arising from shortcomings in human, technological, infrastructure, and health system resources have been documented globally, yet insufficient attention has been given to their potential impact and implications. In this everchanging field of global medical education, it is time to facilitate connections and make resources available between academic and community-based medical centers within HICs and LMICs. Health profession educators should strive to share and complement a multifaceted roadmap to success by taking advantage of each other's strengths. While diversity has been at the forefront of conversations about increasing the number of underrepresented communities in medicine, inclusion and equity are often overlooked. Regardless of the strategy to ultimately foster global medical education, it is essential to develop sustainable, culturally influential, and transferable models worldwide that support the growth of health profession educators from early- to late career through collaboration, partnership, and sharing of resources.²⁸

Tip 12 Protect Your Time

Safeguarding time is crucial to ensure effective teaching and learning. First, employing a structured curriculum with clear learning objectives helps streamline teaching efforts and optimizes time utilization.^{29,30} Second, utilizing technology such

as online platforms for sharing resources and conducting virtual sessions can facilitate flexible learning while minimizing the need for physical presence.^{31,32} Collaborative teaching, where educators from various disciplines share teaching responsibilities, can distribute the workload and enhance efficiency.³³ By adopting these strategies, clinical educators can eventually optimize their time and enrich the learning experience in resource-constrained environments. Further, the majority of institutions will encourage the involvement in education by providing protected time to invest in this field. It is never wrong to ask institutional leadership if one's role can be acknowledged with protected time to accomplish educational goals in the benefit of the organization.

Summary and Recommendation

In the field of health profession education, it is about time to change the paradigm and shift the focus from worrying about what is accessible and what is not, to working with what is currently available and within reach. In resource-limited settings, successfully navigating challenges requires a strategic approach. The "Twelve Tips to Succeed as a Health Profession Educator in Resource-Limited Settings" provides valuable guidance for educators to optimize their impact and visibility. By embracing innovative teaching strategies, leveraging technology, fostering interdisciplinary collaboration, and integrating practical experiences, educators can make the most of limited resources while delivering quality education. These tips emphasize the importance of adaptability, reflection, and an education-centered approach, ultimately contributing to the growth and development of healthcare professionals in even the most constrained environments. Through these strategies, educators can overcome obstacles and continue to inspire and empower the next generation of healthcare providers.

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References

- 1. Diaz JV, Riviello ED, Papali A, Adhikari NKJ, Ferreira JC. Global critical care: moving forward in resource-limited settings. *Ann Glob Health*. 2019;85(1):3. doi:10.5334/aogh.2413
- Dawson L, Klingman K, Marrazzo J. Addressing standards of care in resource-limited settings. J Acquir Immune Defic Syndr. 2014;65(0 1):S10–4. doi:10.1097/QAI.00000000000033
- 3. Advancing careers in medical education: "practice architectures" for success in a resource-constrained setting; 2024. Available from: https://www.tandfonline.com/doi/epdf/10.1080/0142159X.2021.1931082?needAccess=true. Accessed March 8, 2024.
- 4. Hester TB, Cartwright JD, DiGiovine DG, et al. Training and deployment of medical students as respiratory therapist extenders during COVID-19. *ATS Sch.* 2020;1(2):145–151. doi:10.34197/ats-scholar.2020-0049PS
- 5. Muttalib F, González-Dambrauskas S, Lee JH, et al. Pediatric emergency and critical care resources and infrastructure in resource-limited settings: a multicountry survey. *Crit Care Med.* 2021;49(4):671–681. doi:10.1097/CCM.00000000004769
- 6. Marks S, Edwards S, Jerge EH. Rapid deployment of critical care nurse education during the COVID-19 pandemic. *Nurse Lead.* 2021;19 (2):165–169. doi:10.1016/j.mnl.2020.07.008
- 7. Li L, Xv Q, Yan J. COVID-19: the need for continuous medical education and training. *Lancet Respir Med.* 2020;8(4):e23. doi:10.1016/S2213-2600(20)30125-9
- Longhini J, De Colle B, Rossettini G, Palese A. What knowledge is available on massive open online courses in nursing and academic healthcare sciences education? A rapid review. Nurse Educ Today. 2021;99:104812. doi:10.1016/j.nedt.2021.104812
- 9. Longhini J, Rossettini G, Palese A. Massive open online courses for nurses' and healthcare professionals' continuous education: a scoping review. Int Nurs Rev. 2021;68(1):108–121. doi:10.1111/inr.12649
- Rossettini G, Turolla A, Gudjonsdottir B, et al. Digital entry-level education in physiotherapy: a commentary to inform post-covid-19 future directions. *Med Sci Educ.* 2021;31(6):2071–2083. doi:10.1007/s40670-021-01439-z
- Oducado RM, Estoque H. Online learning in nursing education during the covid-19 pandemic: stress, satisfaction, and academic performance. Rochester, NY; 2021. Available from: https://papers.ssrn.com/abstract=3814226. Accessed March 8, 2024.
- 12. Alshehri F. Respiratory Therapy Students' Perception on Online Learning During COVID-19 in the Kingdom of Saudi Arabia [Respiratory Therapy Theses]; 2023. Available from: https://scholarworks.gsu.edu/rt_theses/74. Accessed March 8, 2024.
- 13. Geiling J, Burkle FM, Amundson D, et al. Resource-poor settings: infrastructure and capacity building: care of the critically ill and injured during pandemics and disasters: *chest* consensus statement. *CHEST*. 2014;146(4 Suppl):e156S–e167S. doi:10.1378/chest.14-0744

- 14. Chi BH, Belizan JM, Blas MM, et al. Evaluating academic mentorship programs in low- and middle-income country institutions: proposed framework and metrics. *Am J Trop Med Hyg.* 2019;100(1 Suppl):36–41. doi:10.4269/ajtmh.18-0561
- 15. Ssemata AS, Gladding S, John CC, Kiguli S. Developing mentorship in a resource-limited context: a qualitative research study of the experiences and perceptions of the makerere university student and faculty mentorship programme. *BMC Med Educ*. 2017;17(1):123. doi:10.1186/s12909-017-0962-8
- Connolly N, Abdalla ME. Impact of COVID-19 on medical education in different income countries: a scoping review of the literature. *Med Educ* Online. 2022;27(1):2040192. doi:10.1080/10872981.2022.2040192
- Peluso MJ, Rodman A, Mata DA, Kellett AT, van Schalkwyk S, Rohrbaugh RM. A comparison of the expectations and experiences of medical students from high-, middle-, and low-income countries participating in global health clinical electives. *Teach Learn Med.* 2018;30(1):45–56. doi:10.1080/10401334.2017.1347510
- 18. Pauwels J. Rural graduate medical education: choosing the road "Less traveled by. Acad Med. 2022;97(9):1268. doi:10.1097/ACM.00000000004745
- Wcy H, Nguyen VAT, Nguyen NT, Stalmeijer RE. Becoming agents of change: contextual influences on medical educator professionalization and practice in a LMIC context. *Teach Learn Med.* 2023;35(3):323–334. doi:10.1080/10401334.2022.2056743
- 20. Ajisegiri WS, Abimbola S, Tesema AG, Odusanya OO, Peiris D, Joshi R. "We just have to help": community health workers' informal task-shifting and task-sharing practices for hypertension and diabetes care in Nigeria. *Front Public Health*. 2023;11. doi:10.3389/fpubh.2023.1038062
- 21. Hill E, Gurbutt D, Makuloluwa T, et al. Collaborative healthcare education programmes for continuing professional education in low and middle-income countries: a Best Evidence Medical Education (BEME) systematic review. BEME Guide No 65. 2021;43(11):1228–1241. doi:10.1080/0142159X.2021.1962832
- 22. Hamid M, Rasheed MA. A new path to mentorship for emerging global health leaders in low-income and middle-income countries. *Lancet Glob Health*. 2022;10(7):e946–8. doi:10.1016/S2214-109X(22)00230-3
- Hillman T, Sherbino J. Social media in medical education: a new pedagogical paradigm? Postgrad Med J. 2015;91(1080):544–545. doi:10.1136/ postgradmedj-2015-133686
- 24. Lowe-Calverley E, Barton M, Todorovic M. Can we provide quality #MedEd on social media? Trends Mol Med. 2022;28(12):1016-1018. doi:10.1016/j.molmed.2022.08.002
- 25. Coleman E, O'Connor E. The role of whatsapp[®] in medical education; a scoping review and instructional design model. *BMC Med Educ*. 2019;19 (1):279. doi:10.1186/s12909-019-1706-8
- 26. Konttila J, Siira H, Kyngäs H, et al. Healthcare professionals' competence in digitalisation: a systematic review. J Clin Nurs. 2019;28(5-6):745-761. doi:10.1111/jocn.14710
- 27. Carroll CL, Kaul V, Dangayach NS, et al. Comparing the digital footprint of pulmonary and critical care conferences on twitter. *ATS Sch.* 2021;2 (3):432–441. doi:10.34197/ats-scholar.2021-0041OC
- 28. Olupeliyawa AM, Venkateswaran S, Wai N, Mendis K, Flynn E, Hu W. Transferability of faculty development resources. *Clin Teach*. 2020;17 (1):86–91. doi:10.1111/tct.13024
- 29. Barney CE, Clark BB, da Motta Veiga SP. Research productivity of management faculty: job demands-resources approach. *Career Dev Int*. 2021;27 (2):161–184. doi:10.1108/CDI-02-2021-0051
- 30. Kennedy DR, Clapp P, DeLuca JL, et al. Enhancing pharmacy faculty well-being and productivity while reducing burnout. *AJPE*. 2022;86(5):8764. doi:10.5688/ajpe8764
- Bosslet GT, Carmona H, Burkart KM, et al. Virtually hosting a national medical society conference. lessons learned from the 2020 association of pulmonary and critical care medicine program directors conference. ATS Scholar. 2020;1(3):307–315. doi:10.34197/ats-scholar.2020-0054IN
- Vervoort D, Dearani JA, Starnes VA, Thourani VH, Nguyen TC. Brave new world: virtual conferencing and surgical education in the coronavirus disease 2019 era. J Thoracic Cardiovasc Surg. 2021;161(3):748–752. doi:10.1016/j.jtcvs.2020.07.094
- 33. Dehnad A, Jalali M, Shahabi S, Mojgani P, Bigdeli S. Students' view on supportive co-teaching in medical sciences: a systematic review. BMC Med Educ. 2021;21(1):522. doi:10.1186/s12909-021-02958-4

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