CARDIOVASCULAR PERSPECTIVE

Mentorship and the Leaky Pipeline in Academic Cardiology

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The *Circulation: Cardiovascular Quality & Outcomes* Editors feel so proud to publish this Cardiovascular Perspective simultaneously with the presentation of the AHA QCOR Lifetime Achievement Award to Dr Tracy Wang from Duke. Dr Wang has been a colleague, friend, and mentor for many of us in the QCOR community. Her career exemplifies the impact we can make as clinicians, researchers, and teachers. Congratulations to Dr Wang!

Public speaking terrified me. This was not your run-ofthe-mill jitters; this was tongue-tying, sweat-drenching, deer-in-the-headlights petrification. English was my third language, acquired mostly by reading, and my classmates once made fun of my exotic pronunciation of "vehicle." Yes, I blame that for my public speaking phobia and never imagined a career as an academic clinicianresearcher where speaking skills are a must, preferably one in which you can do simultaneously with thinking.

Years later, I am grateful for the many role models that inspired me to overcome this fear—one whose skill was channeled so effectively down to a southern accent that appeared only during public speaking. Another mentor patiently recorded and critiqued my presentations iteratively. While yet another built up my professional confidence with leadership opportunities that validated my competencies and contributions and dispelled moments of imposter syndrome.

Imposter syndrome is perceived far more commonly in women and other under-represented faces in academic medicine.¹ Despite outstanding professional achievement, these individuals pathologically underestimate their experience level and contributions. For women and people of color, even the occasional feelings of doubt

can be amplified by the intermittent battles with systemic bias and more frequent skirmishes with microaggression. In the academic environment, successes are often underpromoted, and shortcomings are attributed to underpreparation or lack of prioritization in these individuals, perpetuating fatigue from constantly fighting an uphill battle. Although it is wonderful that the diversity of early career cardiologists has grown over time, senior levels of academic cardiology remain overwhelmingly male and White.² Imposter syndrome is a heavy burden, often leading to a sense of not belonging and burnout.³ Compounded by barriers to professional advancement, career dissatisfaction is a common reason why academic cardiologists who are women or people of color change career goals or reassess life priorities, hemorrhaging diverse senior talent from the profession. Imposter syndrome can be a lifelong affliction. I am the second woman and first person of color to receive the AHA QCOR Outstanding Lifetime Achievement Award in its 17-year history. Although unequivocally intended as a compliment, congratulatory notes tagged with the question "aren't you too young for this?" have allowed my imposter syndrome to rear its ugly head, questioning whether I am truly deserving of this accolade.

Diversity remains an elusive goal in academic cardiology. In 2019, Black and Latinx physicians and nurses comprised 5% of medical school faculty.⁴ More than half of cardiovascular trials in the last decade had a leadership structure entirely devoid of female physicians, and only 26% of cardiology practice guideline authors were women.^{5,6} These statistics explain in large part our failures to effectively recruit representative study cohorts in our clinical trials and to equitably translate research advances into improved population health. The lack of representative data delays adoption

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of potentially life-prolonging or enhancing treatment strategies and inflicts harm when therapeutics are used without evidence of safety.

We cannot continue conducting cardiovascular research as usual using traditional methods. Safety net and community hospitals serving more racial and ethnically diverse patients are often too over-extended to indulge in elective research. Trial participation may be unrealistic for caregivers or blue-collar workers unable to take time away from family or work. The coronavirus disease 2019 (COVID-19) pandemic unmasked deepseated health disparities and socioeconomic inequalities. A more polarized society has led to declining trust even of benevolent clinical authority, and social isolation is a deterrent to altruism. Why would any patient trust in research if they do not see anyone from their community among our clinical and research leaders?

Different people access health care differently. For better or for worse, preventive cardiac care is increasingly dispensed by retail quick-access clinics, cardiovascular risk screening has been mobilized directly into the community, and drugs can now be prescribed without ever meeting a physician face-to-face. Although the clinicianpatient relationship remains prized, how that connection is made has evolved and varies with age, gender and culture. Clinical research-especially health services and outcomes research-needs to nimbly adapt to these trends or risk yielding obsolete and inactionable results. Strategies to conduct inclusive and impactful research need to be designed and carried out by a diverse research workforce that is in touch and can build authentic partnerships with the communities we serve. That means diversity needs to be present at all levels of our research workforce and especially at the leadership level. Anything short of that will only exacerbate existing health disparities.

Simply enhancing diversity in representation is not enough. Great leaders work hard to build a work culture of inclusivity, fostering career satisfaction that inspires engagement, creativity, performance, and innovation. Now more than ever, early and later career academic cardiologists need to build resilience. To those of you who are feeling depleted or uncertain, take the time to recognize and acknowledge it. There is an old Chinese saying "勿忘初心-do not forget your original heart." Most health care professionals view their work as a calling; remind yourself of the "why" and what your aspirations were when you chose this field way back when. Try to take a step back to re-orient your sense of self and regain a longer-ranged perspective to buffer any negativity. In the past, I rarely said "no" to leadership opportunities, afraid that I would miss out in a competitive landscape. These days, I "Marie Kondo" everything; I remind myself that being good at a joyless role does not necessarily mean you are the only person who can do the job. We deprescribe for our patients to avoid toxic polypharmacy; we need to deprescribe for ourselves to prevent burnout.

Sometimes, the underlying problem is a fundamental lack of alignment between our core needs and the people and tasks we surround ourselves with. Find the courage to step out of your comfort zone-discover new career opportunities, reactivate your desire to learn, and seek out more positive relationships.

Volunteering to mentor others is a particularly effective way of energizing the routine. You do not need to have white hair or cross a line in the sand of accomplishment to mentor someone.⁷ Being a mentor and being mentored are both highly valued and mutually fulfilling, particularly in times of stress and change. Mentoring is rarely unidirectional; fundamentally it is about building trusted connections so that conversations can be candid and safe. Here is what my mentees, particularly those who are currently under-represented in our field, have told me they need: (1) Be a successful role model who is not afraid of being vulnerable-get real with me, show me you can be successful without being superhuman, normalize my anxieties. (2) Break systemic barriers to challenge me with opportunities; this means intentionally diversifying nominees for leadership positions or creating coleadership positions with a prespecified transition plan for when the mentee is ready to step into the lead. (3) Celebrate my successes but do not just applaud the article that got published or the grant that was awarded. Celebrate me-how I have grown, the challenges I overcame, and the progress I have made towards my goals. Fact-check me when I express doubts or downplay my achievements. (4) Emphasize balance-although singleminded focus is a path to career success, the time and energy invested in your personal life and the people supporting you will rejuvenate you for the long run.

The world changes quickly these days and that can be an incredible opportunity. The way we conduct science and practice medicine can and should be improved. Not all of us are natural-born leaders (let alone confident public speakers), but with good mentorship, self-care, and resilience, we can be more confident and fulfilled agents of change.

ARTICLE INFORMATION

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Disclosures

None.

REFERENCES

- Bravata DM, Watts SA, Keefer AL, Madhusudhan DK, Taylor KT, Clark DM, Nelson RS, Cokley KO, Hagg HK. Prevalence, predictors, and treatment of impostor syndrome: a systematic review. J Gen Intern Med. 2020;35:1252–1275. doi: 10.1007/s11606-019-05364-1
- Blumenthal DM, Olenski AR, Yeh RW, DeFaria Yeh D, Sarma A, Stefanescu Schmidt AC, Wood MJ, Jena AB. Sex differences in faculty rank among academic cardiologists in the United States. *Circulation*. 2017;135:506–517. doi: 10.1161/CIRCULATIONAHA.116.023520

- Cader FA, Gupta A, Han JK, Ibrahim NE, Lundberg GP, Mohamed A, Singh T. How feeling like an imposter can impede your success. *JACC Case Rep.* 2021;3:347–349. doi: 10.1016/j.jaccas.2021.01.003
- American Association of Medical Colleges: Diversity in medicine: facts and figures 2019. www.aamc.org/data-reports/workforce/interactivedata/figure-18-percentage-all-active-physicians-race/ethnicity-2018. Accessed January 17, 2022.
- 5. Rai D, Kumar Á, Waheed SH, Pandey R, Guerriero M, Kapoor A, Tahir MW, Zahid S, Hajra A, Balmer-Swain M, et al. Gender differences

in international cardiology guideline authorship: a comparison of the US, Canadian, and European cardiology guidelines from 2006 to 2020. *J Am Heart Assoc.* 2022;11:e024249. doi: 10.1161/JAHA.121.024249

- Wang TY, DesJardin JT. Time to end "Manels" in clinical trial leadership. JAMA Intern Med. 2020;180:1383-1384. doi: 10.1001/ jamainternmed.2020.2489
- Holmes DR Jr, Hodgson PK, Simari RD, Nishimura RA. Mentoring: making the transition from mentee to mentor. *Circulation*. 2010;121: 336-340. doi: 10.1161/CIRCULATIONAHA.108.798321