

STRATEGIES FOR MENTORING AND RETAINING UNDERREPRESENTED MINORITIES IN MEDICAL PHYSICS PRACTICE ENVIRONMENTS

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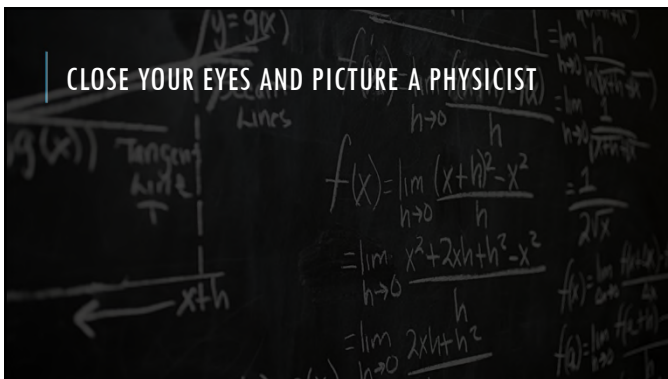
Foster Science Identity → Provide Holistic Mentorship → Avoid Exclusionary Practices

Support URM colleagues

PRACTICAL STEPS TO TAKE

2

CLOSE YOUR EYES AND PICTURE A PHYSICIST



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You can't be what you can't see.
 This is what a physicist looks like.
 We Can Do it! (Rosie the Riveter)

REPRESENTATION MATTERS

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FOSTER PHYSICS/SCIENCE IDENTITY

Physics Identity is a strong predictor of career intentions and achievement for undergraduate students.^{1,3}

Minorities remain in STEM fields for much longer when they^{1,2,3}

- Have built a strong identity in their field
- Value the objectives of the field
- When they have self-efficacy, or believe in their ability in the field

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Identify	Establish	Share	Discuss and acknowledge
<ul style="list-style-type: none"> • Perceive your mentee as a physicist • Recognize that some behaviors that are called "professional" are just white American cultural norms. • Many behavioral stereotypes of URM's have no connection to scientific thinking. 	<ul style="list-style-type: none"> • Establish a common identity with your mentee • Favorite Imaging Modality? • Have a stubborn grandmother? 	<ul style="list-style-type: none"> • Share personal struggles with your mentee 	<ul style="list-style-type: none"> • Openly discuss and acknowledge how race or other minoritized status can be a barrier to a mentee's success.

WHAT CAN NON URM MENTORS DO?

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Minorities who advance the furthest have a strong network of mentors and sponsors.⁴

They share full developmental relationships with mentors, rather than just instructional relationships.⁴

HOLISTIC MENTORSHIP

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graph TD
    A[Learn about and understand the power dynamics and systems of oppression on a global and local scale.] --> B[Believe the experiences of URM (leadership, colleagues and mentees) when they tell you about them.   
 * Right the ship to believe only your perceptions are accurate.]
    B --> C[Be culturally competent]
    C --> D[Listen to your mentee's needs. They may be different than your initial assumptions.]
    D --> E[Understand that overwhelming emotions around social and political events may need to be dealt with to make space for clear scientific thinking.]
    
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WHAT CAN NON URM MENTORS DO?

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Minorities will advance further when they feel psychologically safe.

Do not pretend race, gender, and other minoritized statuses aren't a factor.

- I don't see color.
- All Lives Matter.
- You're just like one of the guys.
- You don't look autistic.
- Nobody can tell you're gay anyway.
- But rappers can say it.

AVOID EXCLUSIONARY PRACTICES

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Offer sponsorship to stereotypically presenting minorities.

URMs are often expected "earn" a mentor's or sponsor's endorsement by proving that they don't exhibit any stereotypes of their minoritized status, while non-URMs are given the benefit of the doubt.

If you know you aren't the best role model for a minority mentee, help them find someone who is, and then work on becoming a better role model for the next potential mentee.

AVOID EXCLUSIONARY PRACTICES

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Effective role modeling requires a mentee to identify with their mentor.

It is helpful for minorities to receive mentorship from senior minorities.

Studies have found that mentors who are culturally competent and understand power dynamics and oppression are highly successful in mentoring URM students.⁴

SUPPORT URM COLLEAGUES

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Extra Workload

- Called upon more often because there are few available minorities for EDI efforts
- Time away from academic or clinical duties due to larger share of mentoring activities

Professional Toll

- Institutions often do not value mentoring efforts.
- Leadership/colleagues may feel indifference or even contempt for EDI efforts.

Emotional Toll

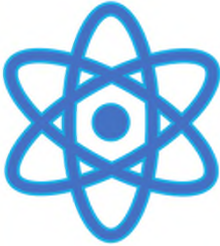
- Helping minority mentees navigate academic or institutional culture and other personal issues can mean reliving trauma
- Mentors may need to disclose less physically apparent (e.g. disability, and LGBTQ+ status) to benefit mentees.

SENIOR URMS PAY A HIGH PRICE FOR BEING MENTORS⁴

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HELP US DO THE WORK!

This is hard. But we're physicists.
We can do hard things.



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REFERENCES

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2. Estrada, M., Woodcock, A., Hernandez PR, Schultz PW. *Toward a Model of Social Influence that Explains Minority Student Integration into the Scientific Community*. *J Educ Psychol*. 2011 Feb 1; 103(1):206-222.
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4. Thomas, DA. *The truth about mentoring minorities*. *Race matters*. Harvard Business Review. 2001 Apr;79(4):98-107, 168.

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QUESTIONS?

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