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# Study Protocol for a Mixed Method, Three-Arm Cluster Randomized Comparative Trial Testing the Impact of Culturally Aware Mentoring Interventions on Research Mentors and Graduate Training Programs

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Ellyssa Eiring<sup>1</sup>, Angela Byars-Winston<sup>1</sup>, Stephanie C. House<sup>1</sup>, You-Geon Lee<sup>1</sup>, Richard McGee<sup>2</sup>, Remi F. Jones<sup>2</sup>, Sylvia Hurtado<sup>3</sup>, Amanda Carrasco<sup>3</sup>

<sup>1</sup>University of Wisconsin-Madison; <sup>2</sup>Northwestern University; <sup>3</sup>University of California, Los Angeles

Ellyssa Eiring: Both authors (EE and AB) contributed equally as senior first authors;

Angela Byars-Winston: Both authors (EE and AB) contributed equally as senior first authors;



**Angela Byars-Winston**

University of Wisconsin-Madison

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**We use this protocol and it's working**

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## Disclaimer

Data collection was already underway when the protocol was posted.

## Abstract

Research mentoring relationships are critical for developing the next generation of scientists. However, research mentors have seldom recognized how cultural differences can influence mentoring relationships, particularly for individuals from backgrounds historically underrepresented in the sciences. To address this need, a mentorship education intervention, the Culturally Aware Mentoring (CAM) workshop, was developed. Preliminary studies showed CAM was effective in promoting culturally aware mentoring principles and behaviors. This paper describes the study protocol for a deeper examination of the impacts of three variations of CAM. We use a mixed method, three arm cluster randomized comparative trial design with 33 sites, paired with in-depth case studies at two institutions. The Theory of Planned Behavior and Organizational Learning provide complementary theoretical frameworks to gauge how mentors and their training environments are impacted by CAM. The primary research questions are: 1) What are the short and longer-term impacts of CAM interventions on research mentors' attitudes and behaviors? 2) What are the broader institutional impacts of CAM on graduate training environments? 3) Why, or why not, do mentors and training environments change? Study sites are biomedical PhD programs at high research universities across the United States. The study targets 600 faculty actively mentoring PhD students and the interventions are delivered virtually and led by trained facilitators. Survey data are collected across the trial and the case studies at four time points: pre-intervention, immediately post-intervention, 6 and 12 months post intervention. Post intervention interviews are conducted with a subsample of participants to examine how and why their mentoring practices changed. The case studies assess organizational changes in those environments following CAM intervention. This study's results will reveal extensive insights into the research questions, laying the foundation for broader deployment of CAM to the biomedical and larger research training community.

## Attachments



**CAM Protocol Paper P...**

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