

BRIEF REPORT

Designing Effective Mentorship for Underrepresented Faculty in Academic Medicine

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INTRODUCTION

Mentorship is critical for the success of faculty underrepresented in medicine (URiM). Only 13% of US physicians are from URiM groups—American Indian/Alaska Native, Black or African American, Latinx (Hispanic or Latino), Native Hawaiian or other Pacific Islander, and Southeast Asian—although these groups comprise 34.1% of the general population.^{1,2} URiM faculty face unique barriers in an academic medicine environment that continues systemic segregation, discrimination, and a culture of elitist traditions built centuries ago.^{3–10} Although family medicine is the most diverse medical specialty, little training exists for mentors to provide culturally responsive mentoring.¹¹

ABSTRACT

Background and Objectives: A dearth of training and resources exists for mentors to address the unique needs of faculty from racial/ethnic groups that are underrepresented in medicine (URiM). Mentoring Underrepresented Faculty for Academic Excellence (MUFAE) was a multi-institutional mentoring program designed to provide mentors where there were none.

Methods: In 2020, 25 early career URiM faculty mentees each were paired with advanced faculty, and pairs met individually for monthly calls for 1 year. Mentees completed pre- and postassessment surveys regarding their experience in the program. Mentees and mentors also participated in virtual group check-ins where they gave feedback on their experience to program leaders while also networking with fellow participants.

Results: Twenty-two of the 25 mentor-mentee pairs (88%) completed the program, and 17 of the 22 (77%) mentees completed the pre- and postsurveys. Survey responses showed significant increases in mentees reports of feeling they received mentorship focused on their needs as URiM faculty members, feeling equipped to advance in their careers, and feeling supported in their efforts to complete antiracism/health-equity programs. Feedback at the check-ins indicated that URiM mentors appreciated the opportunities to talk about their own frustrations and that White mentors appreciated having an increased understanding of challenges that their URiM colleagues faced.

Conclusions: MUFAE is a model for academic societies to address the lack of mentors for URiM faculty. Mentees and mentors found the experience a meaningful one that fills a need in academic mentoring.

This paper presents a model for URiM mentorship that is academic society-based and addresses mentee and mentor perspectives. Mentoring Underrepresented Faculty for Academic Excellence (MUFAE) was a program designed to meet the unique needs of URiM faculty in years 1 to 5 of their career. Program objectives included (1) identifying the needs of URiM faculty, (2) training mentors to provide culturally relevant mentorship, and (3) providing ongoing support and feedback to the mentor-mentee pairs to promote retention and career satisfaction.

METHODS

The Institutional Review Board at Halifax Health deemed this study exempt.

Development of MUFAE

The Society of Teachers of Family Medicine (STFM) created the Underrepresented in Medicine Initiative with four work groups: mentorship, leadership, pipeline, and scholarship. The mentorship work group (MWG) developed MUFAE to increase effective mentorship for URiM faculty. STFM staff provided scheduling, recordkeeping, and other administrative support. In 2020, MWG created a mentoring model to (1) address unique needs of URiM faculty, (2) facilitate conversations about racism and oppression, and (3) foster mentorship as a mutual, trusting relationship to share expertise. MWG elicited mentors and mentees through STFM's national list serves and paired them together for 1 year. Participation was voluntary without compensation. All mentees self-identified as URiM. Mentors, representing diverse cultural backgrounds, self-identified as White (50%), URiM, or other minority, non-URiM cultural groups (50%). Mentees completed a background form that included their cultural identity and importance of having race concordant mentors. MWG made pairings based on mentees' preferences for race concordance whenever possible. This paper focuses on only the first year of MUFAE (2020–2021), written prior to conducting the second year of the curriculum (2021–2022).

MWG held three training seminars for mentors to help mentees set academic and self-care goals. Twenty-five mentor-mentee pairs participated, meeting monthly. MWG also held virtual group check-in meetings with (1) mentees only, (2) mentors only, and (3) mentors and mentees combined. The check-ins allowed the mentors and mentees to learn from one another and give MWG formative feedback. [Table 1](#) describes the program in more detail.

Evaluation of MUFAE

MWG created a pre- and postassessment survey to identify mentees' professional needs and areas of improvement for the program. The pre- and postsurveys included eight items about general career needs (items 1, 2, 4–7), specific URiM needs (item 3), and needs related to doing work in diversity, equity and inclusion (item 8). The survey also included one open-ended question: "Describe what you hope to gain from the MUFAE mentoring experience." Responses were used to plan the project. MWG distributed the survey via SurveyMonkey (SurveyMonkey Inc) before mentees started the program and again in the last month of mentorship. Response options for items 1 through 8 included a 5-point Likert scale with options for "strongly disagree," "disagree," "neutral," "agree," and "strongly agree" coded from 1 to 5, respectively. The surveys were linked by last name and administered in July 2020 (pre) and again in July 2021 (post). Generalized estimating equations (GEEs) with bias-corrected (small-sample) standard errors were conducted.^{12,13} A colleague from the URiM initiative who did not participate in this program analyzed the pre- and postassessments.

MWG participants attended the virtual check-ins and took extensive notes for the purpose of gathering feedback for ongo-

ing curricular improvement. MWG participants reviewed and discussed these notes at monthly planning meetings. The MWG leader (KF) compiled all notes, and MWG participants reviewed them, identifying common themes. The notes represented information gathered for ongoing curricular development, not for assessing program effectiveness. [Table 2](#) shows the evaluation methods and responses.

RESULTS

Of the 25 mentees who began the program, 22 (88%) stayed in contact with their mentors throughout the year. Twenty-two mentees completed the preassessment, and 17 (77% of completers) filled out the postassessment. In response to the open-ended question on the preassessment, mentees identified several needs, including guidance for advancement and promotion and a safe space to discuss minority tax issues. In response to the quantitative assessment items on the postassessment, mentees reported significant increases in (1) receiving mentorship focused on their needs as URiM faculty members, (2) feeling equipped to take their career to the next level, and (3) being able to find resources to support academic interests around health equity and antiracism work.

From reviews of virtual check-ins, MWG identified that:

1. Mentees appreciated support from fellow mentees.
2. Mentors had good suggestions when sharing difficult experiences as URiM faculty.
3. Mentees appreciated the help to advance in their careers.
4. Mentees felt gratitude for their URiM mentors as role models.
5. Mentors appreciated the safe space created to discuss difficult issues with one another.
6. Mentors from URiM and other minority cultural/ethnic groups valued communicating with one another about mentoring challenges.
7. White mentors valued the opportunity to advance allyship skills in addressing racial/cultural injustices.
8. Suggestions for the future included giving mentees more information on promotion and advancement, and spreading MUFAE to other institutions.

CONCLUSIONS

MUFAE was created to address the dearth of mentors trained to address needs of early career URiM academic faculty. Mentees reported feeling an increased (1) ability to succeed in academic medicine and (2) sense of mentorship addressing their needs as URiM faculty, which has been identified as essential for success.¹⁴ MUFAE's strengths include its use of resources of a national network, diversity of mentors, basis in an academic society, specialty specific focus (family medicine), emphasis on faculty development for mentorship, mutual learning relationship, and explicit mentoring about racism's effect on faculty in academic medicine.

Limitations include small sample size, inability to standardize the pre- and postassessment, fewer completed postassessments than preassessments, and lack of anonymity

TABLE 1. New MUFAE Development Process

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| <p>Developing the program</p> <p>URM Oversight Committee (URMOC) appoints work group leaders (mentorship, leadership, pipeline, scholarship).</p> <ul style="list-style-type: none"> • In-person meeting of four work group leaders and URMOC* • Work group leaders begin to develop structure for their projects. • All four groups share ideas and focus on common themes. • Leader of mentorship work group (MWG) develops initial outline for project. <hr/> <p>MWG leader develops initial plan for mentorship project for year 1.</p> <ul style="list-style-type: none"> • MWG leader identifies work group members. • MWG creates overview for year 1. <hr/> <p>MWG develops steps for MUFAE.</p> <ol style="list-style-type: none"> 1. Identify mentor and mentee recruitment process. 2. Create mentor and mentee background forms. 3. Design mentee action plan form to help mentees and mentors set goals for the year. 4. Create mentee pre-/postassessment document. 5. Enact pairing strategy to put mentors and mentees together. 6. Administer mentor training webinars in the first few months of the project. 7. Provide mentor and mentee check-ins throughout the project (two for mentees, two for mentors, and one combined). <hr/> <p>First year of MUFAE</p> <p>MWG meets monthly.</p> <ul style="list-style-type: none"> • Proceed with steps 1–7 above. • Monitor progress as program develops. • Work with STFM staff to collect data, set up Zoom meetings, and facilitate communication with participants. <hr/> <p>MWG leader monitors monthly meetings of mentor-mentee pairs.</p> <ul style="list-style-type: none"> • Suggested topics for calls: <ul style="list-style-type: none"> • Effects of oppression and marginalization • Strategies for advancement and promotion • Developing a self-care plan • Developing your professional network • Seeking sponsorship • Developing research projects in your areas of interest <hr/> <p>Various members of MWG participate in mentor-mentee check-ins.</p> <ul style="list-style-type: none"> • Two mentee check-ins (mos 3 and 5) • Two mentor check-ins (mos 5 and 7) • One combined mentor-mentee check-in (mo 9) <hr/> <p>MWG summarizes information from check-ins.</p> <ul style="list-style-type: none"> • Mentees report that they appreciate <ul style="list-style-type: none"> • Talking to mentors about discrimination • Increased professional network • Safe space to discuss racism • Support for DEIA work • Gaining skills to set professional boundaries and “say no” • Mentors report <ul style="list-style-type: none"> • Appreciation for safe space to discuss difficult issues • Concerns about demands on early career faculty • Concerns about minority tax on early career faculty <hr/> <p>MWG plans final meetings.</p> <ul style="list-style-type: none"> • MUFAE virtual reception at STFM Annual Conference • Wrap-up Zoom meeting at end of the mentorship year to provide closure on mentor-mentee experience <hr/> <p>MWG analyzes project data and feedback.</p> <ul style="list-style-type: none"> • Mentees complete postassessment, and MWG analyzes results. • Revise methods for year 2 based on results of postassessment and feedback from check-ins. • Begin to write article to summarize effects of the project. |
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TABLE 2. Evaluation Data From the Program

| Items in pre- and postsurvey ^a | Pre-MUFAEN=21 Median (IQR) | Post-MUFAE N=17 Median (IQR) | P value | Holm-Bonferroni P value threshold |
|---|-------------------------------|---------------------------------|---------|--------------------------------------|
| 1 I have a network of colleagues that I can call on for advice. | 4 (1) | 4 (1) | .040 | .010 |
| 2 I know where to go to find resources for my job. | 4 (1) | 4 (0) | .120 | .030 |
| 3 I feel that I have received mentorship that focuses on my needs as a URiM faculty member. | 3 (2) | 4 (2) | .001 | .007 ^b |
| 4 I feel that I am equipped with tools to get myself to the next level in my career. | 3 (1) | 4 (1) | .003 | .008 ^b |
| 5 I feel confident that I will be able to achieve promotion/advancement when the time comes to apply. | 3 (1) | 4 (1) | .020 | .010 |
| 6 I feel professionally isolated. | 3 (2) | 3 (1) | .260 | .050 |
| 7 I have a good understanding of what it takes to succeed in my field of academics. | 3 (1) | 4 (1) | .040 | .010 |
| 8 I feel that I can find resources that support my academic interests around health equity and antiracism work. | 3 (2) | 4 (1) | <.001 | .006 ^b |
| 9 Describe what you hope to gain from the MUFAE experience. | | | | |

- Sample mentee responses: guidance for advancement and promotion; ability to discuss challenges of being minority faculty member

Sample of questions used to solicit feedback during the mentee, mentor, and combined check -ins

1. What is going well?

- Sample mentee responses: support from fellow mentees, appreciate safety to discuss difficult issues; appreciate contact with outside faculty; gratitude for URiM role models in mentors
- Sample mentor responses: learning a lot about needs of early career faculty; appreciate safety to discuss difficult issues

2. What could be going better?

- Sample mentee responses: more meetings with mentor; more specific suggestions for promotion/advancement
- Sample mentor response: more contact with mentee

3. Any suggestions for MWG for the future?

- Sample mentee response: more networking opportunities for mentees with one another
- Sample mentor responses: send out form with interest/expertise of other mentors to refer their mentees to; spread this method to other institutions

^aAll data from the survey were analyzed by GEEs, which focus on change over time for participant-matched pre- and postdata, allow for missing data, do not require residuals to have a normal distribution, and are known to improve power in small-sample longitudinal studies.

^bThese data meet the Holm-Bonferroni P value threshold for significance. This method reduces family-wise errors.

Abbreviations: MUFAE, Mentoring Underrepresented Faculty for Academic Excellence; IQR, interquartile range; URM or URiM, underrepresented in medicine; MWG, mentorship work group; GEEs, generalized estimating equations

in participants' survey responses. Variations in the amount of contact between mentee-mentor pairs also limit generalizability of the findings.

This program offers valuable contributions to literature on URiM faculty mentorship. It replicates findings that targeted mentorship projects for URiM faculty by URiM faculty can be effective.¹¹ Reflections from mentees support studies showing satisfaction within URiM mentorship programs even when mentor-mentee relationships are race-discordant.¹⁵ Both mentees and mentors expressed strong appreciation for this program, which is unique. Guevara et al¹⁶ identified only minor increases in URiM faculty retention associated with targeted faculty development yet did suggest that programs like MUFAE, with an ongoing training and monitoring component, may increase faculty retention over time. Verduzco-Guttierrez et al emphasized the critical need for

academic medical societies like STFM to commit to culturally responsive mentoring for URiM faculty.¹⁷ This program can become a national model for other academic society-based URiM-focused mentoring projects.

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