

1. COVER PAGE

TITLE: Novel, Simulation-Based Microaggression Response Training in Emergency Medicine

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Section(s) that grant focuses on:

GME (graduate medical education)

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2. PROPOSAL ABSTRACT

Problem/Educational Issue: In Emergency Medicine (EM), approximately 65% of providers experience or witness implicit bias or microaggression. Microaggressions can have a detrimental impact on well-being, increasing burnout rates and compromising learning. Resident physicians encounter microaggressions often, yet there exists no standard curriculum within EM residency education to teach how to recognize and address them.

Goal:

To develop, implement and evaluate a novel, simulation-based curriculum for teaching EM residents skills for identifying and managing microaggressions in the workplace.

Approach: A simulation-based curriculum will be created to teach EM residents how to identify and manage microaggressions. In this mixed-methods study, EM residents will receive either the simulation curriculum, the RISE UP didactic curriculum, or no curriculum. Each group will be given baseline, post-intervention, and one-month follow-up surveys assessing their level of comfort in identifying and addressing microaggressions at work. Statistical analysis will include frequency, proportions, and non-parametric pre-post analyses via Kruskal-Wallis tests. Open-ended survey questions will undergo thematic analysis utilizing the six-phase Braun-Clarke methodology.

Predicted Outcomes: We hypothesize that: (1) all participants will have experienced previous microaggressive experiences; (2) participants from the simulation curriculum will more frequently identify and address microaggressions in the workplace compared to the control group and the RISE UP group; (3) participants from the RISE UP group will be able to more frequently identify and address microaggressions in the workplace compared to the control group. (4) Qualitative analysis will describe how the novel simulation curriculum is transformative to participants in regards to identification and discussion of microaggressions.

Anticipated Impact including dissemination plan: Findings from this study will be disseminated in peer-review publication and national meetings, and will inform the development of a best practice for training residents to address workplace microaggressions and bias. Results may lead to broad adaptations to graduate medical education, undergraduate medical education and health professions education training programs nationwide.

3. PROPOSAL NARRATIVE

Rationale and Statement of Problem

Current research indicates that medical providers are vulnerable when confronted with discrimination from patients¹⁻⁹. Microaggressions are actions or words that subtly discriminate and marginalize an individual, targeting minorities based on their race, gender, or sexual orientation. These encounters can cause psychological harm and disrupt learning and career growth. Commonly reported microaggressions include being mistaken for a nurse or service worker, overhearing degrading terms, objectification, lack of role models, being mistaken for someone of the same race, and assumptions about intelligence¹⁻⁴. The risk of burnout has been shown to increase as mistreatment and discrimination experiences increase⁵. Four times as many physicians who have experienced discrimination will consider changing careers, compared to those who have not⁶. Discrimination also negatively impacts career satisfaction, career advancement, and job turnover⁶⁻⁹. Specific training in diversity, equity, and inclusion (DEI) is therefore imperative, however, its incorporation into education is challenging and undefined.

Microaggression response training is thought to mitigate the harmful effects of discrimination, racism, and bias by empowering trainees to self-advocate and to help their peers in the clinical environment while maintaining a therapeutic alliance with patients. There is a lack of interactive curricula focused on microaggression response training for medical trainees. Only one formal curriculum for residents has been described: Realizing Inclusion and Systemic Equity in Medicine: Upstanding in the Medical Workplace (RISE UP)⁸. It is a 3-hour workshop that includes discussions and exercises designed to prepare residents to cope with a variety of racially-charged situations at work⁸.

Simulation (SIM) is an interactive educational tool that has been proven to increase healthcare providers' knowledge by allowing for new skills acquisition and old skills retention. When paired with post-encounter debriefing sessions, SIM promotes learning and behavior change through valuable introspection and reflection¹⁰⁻¹⁷. There is scarce literature focusing on SIM for DEI topics and no formal simulation-based microaggression response curriculum. There exists the opportunity to utilize SIM as a novel, interactive method for delivering a standardized interactive curriculum to emergency medicine (EM) residents on microaggressions. Our proposed innovation is to create a novel, simulation-based microaggression response training curriculum for EM residents, which will allow learners to practice the actual skills and competencies necessary for identifying and managing microaggressions in an experiential way. We will study the effects of this curriculum in comparison to the only other described microaggression response curriculum for residents, the RISE UP didactic curriculum, and in comparison to no curriculum. The proposed project uses utilizes a mixed methodological approach and the specific aims are as follows:

Aim 1: To create and implement a SIM-based microaggression response training curriculum to train EM residents to identify and respond to workplace microaggressions.

- Utilizing the available literature on microaggressions and best practices in simulation, a series of simulation cases and debriefing guides and will be created and implemented on North Shore-LIJ EM residents.

Aim 2: To compare a SIM-based microaggression response training curriculum to the didactic RISE UP curriculum and to no curriculum for improving resident-physician knowledge on how to recognize and handle microaggressions in the workplace.

- The primary endpoint is to evaluate residents' self-reported ability to recognize microaggressions using a survey instrument adapted from the creators of the RISE UP curriculum.
- Secondary endpoints will include the residents' self-reported level of ease in discussing microaggressions; their knowledge of the tools to respond to, escalate, and/or report microaggressions; and their likelihood of using the tools when microaggressions and bias have occurred.
- Performance on the survey instrument will be evaluated pre-intervention, immediately following the intervention and one-month post-intervention.
- We hypothesize that the SIM curriculum will perform better than the RISE UP curriculum as measured by the survey instrument. We hypothesize that both the SIM and RISE UP curricula will perform better individually compared to no intervention.

Aim 3: To characterize and understand the experiences of residents as they relate to microaggressions in the workplace.

- Post-intervention, self-reported open-response questions will gather qualitative data regarding resident physicians' experiences with workplace microaggressions, as well as to identify potential barriers and solutions in dealing with them.
- Responses from participants in the SIM, RISE UP and control groups will also be compared to explore how the various modes of microaggression response training are transformative to the learners.

Background & Theoretical Framework

The SIM curriculum will be created based upon the principles of Kern's 6-step model for curricular development¹⁸. SIM has become a mainstay in undergraduate and graduate medical education programs and is recognized as a "best practice" approach that is effective and complimentary to medical education in patient care settings¹⁹. SIM has been documented not only to aid in the development of medical knowledge and technical skills, but to also improve non-technical skills such as communication and team-training²⁰. After a SIM scenario, it is standard for participants to undergo a debriefing session. The debriefing portion is essential to the learning process. This is where trained debriefers engage the learners into a reflective dialogue where they then share their mental model and cognitive frame. With self-reflection and guidance from the debriefer, participants may change their mental model, thus allowing learning to occur²¹. The Kolb experiential learning cycle is one of the main learning theories cited to describe how SIM facilitates learning. In this four-phase cycle, the SIM scenario allows for participation in a "concrete experience" which is then reflected upon during the debriefing, allowing for the "reflective observation" phase, where the participant reflects on their experience and their response to it²²⁻²³. The debriefing also allows for "abstract conceptualization," where the participant has the chance to think logically on their experience and the "active experimentation" phase, where participants discuss how they would apply new skills learned and even practice them in a hypothetical role-play situation^{22,23}.

Approach

The North Shore-Long Island Jewish EM residency at the Zucker School of Medicine and Hofstra/Northwell Health (NS/LIJ-EM) hosts a total of 79 residents, including 10 residents enrolled in the EM-internal medicine (EM-IM) track. Participants are eligible for study inclusion if: they are a current NS/LIJ-EM resident and are willing to participate. The research team will email a link to all NS/LIJ-EM residents through a secure web-based application, Research Data Capture application (REDCap), of which will contain an eligibility screener, an e-consent form and an anonymous electronic baseline survey. Consenting to participate in the study will mean opting into completion of the baseline, post-session and 1-month follow up surveys. The interventions themselves (SIM and RISE UP) will be incorporated into the residency curriculum. Participants can choose to opt-out of the study at any time without repercussion or penalty.

The NS/LIJ-EM residency typically holds weekly educational SIM sessions for residents as part of their training. Approximately 8-12 residents of varying training levels are scheduled to participate in one SIM session over a 6-week block. Due to scheduling conflicts, such as rotating through the intensive care unit or other non-ED rotations, an average of 10% of residents (~8 residents) per 6-week block do not get to participate in the SIM session. Scheduling for the SIM sessions is determined by residency leadership and is based upon resident scheduling and availability. Upon study implementation, both the SIM-based and the didactic-based RISE UP microaggression response curricula will be conducted at the normative location and time of a residents' normally scheduled SIM session. Those ~10% of residents who are unable to attend SIM due to conflicting schedules will not receive either curriculum and are eligible to be enrolled as a study control. Should a resident consent to participate in the study, they will be placed into one of three groups: SIM, RISE UP, or control. In an attempt to have equal delivery of the SIM and RISE UP curricular sessions, 3 out of 6 weeks when this study is to be implemented, the RISE UP curriculum will be delivered. The SIM-based curriculum will be delivered the other 3 weeks, and those weeks will be randomized. Study participants will not know which intervention they will receive until they arrive at the session. Participants will be asked to complete a baseline survey upon enrollment and prior to any intervention. Survey questions are adapted from the RISE UP curriculum surveys and will include basic demographics, knowledge of and previous experiences of microaggressions, and comfort and confidence level identifying and addressing microaggressions.

Participants assigned to the SIM intervention group will participate in the SIM scenarios and their corresponding debriefing sessions pertaining to identifying and managing different microaggressions encountered in the workplace. The SIM cases and their corresponding debriefing guides will be developed by the PI and the study team utilizing Kern's 6-step approach to curriculum design¹⁸ and utilizing available best practices on the identification and management of microaggressions, discrimination, bias and racism, including those encountered in the medical workplace²⁴⁻³¹. Each SIM will be followed by a standard debriefing session led by EM SIM faculty who will discuss the events of the SIM. Participants will be asked to complete a post-session REDCap survey that contains qualitative questions about their own experiences with microaggressions, repeated quantitative measures from the baseline survey evaluating their ability to identify and manage microaggressions, as well as questions pertaining to their perception of and satisfaction with the curriculum. Approximately one month after receiving the curriculum, a follow up quantitative response survey will be sent to participants to assess for educational gains.

Participants assigned to the RISE UP intervention group will receive the RISE UP didactic curriculum which consists of a series of three 1-hour workshops comprised of workshop slides, video vignettes, handouts and discussion tools, all freely available from the RISE UP curriculum developers.⁵ These workshops will be delivered in a single session. After completion of the course, participants will be complete a post-session quantitative response survey and qualitative open-response questions similar to that of the SIM group, as described above. Participants will also receive a follow up quantitative response survey one month after receiving the RISE UP curriculum to evaluate for educational gains.

A small proportion of participants will not receive any curriculum due to scheduling conflict precluding them from attending their regularly scheduled SIM session. These participants will have the opportunity to participate in the study as controls. They will be consented and asked to complete the same series of surveys as the two intervention groups. They will fill out the baseline survey upon enrollment. They will be emailed their “post-session” survey on a day that they would have otherwise been scheduled for SIM (if not for schedule conflict). The follow up survey will be distributed one month after this date. To ensure equity, the RISE UP program materials and instruction will be made available electronically to all control participants for their review at the completion of the study.

The primary endpoint of Specific Aim 2 will be the residents’ self-reported ability to recognize microaggressions using an instrument adapted from the creators of the RISE UP curriculum.⁵ This instrument utilizes a 5-point Likert scale to assess whether the intervention affected participants’ understanding of microaggressions in the workplace. Secondary endpoints will include the residents’ self-reported level of ease in discussing microaggressions; their knowledge of the tools to respond to, escalate, and/or report microaggressions; and their likelihood of using the tools when microaggressions and bias have occurred. Secondary endpoints will utilize the same 5-point Likert scale and scoring system. Other study measures will include resident demographic information, including participants' role (PGY1-3), gender, ethnicity and age.

Barriers that we anticipate include a limited sample size due to the fixed size of our residency program. However, we have attempted to maximize the participation rate by making the educational interventions a fixed part of the residency curriculum while study participation requires participants committing to fill out the surveys. We anticipate that some potential participants may have some hesitation about participating in a workplace-based study. We will assure potential participants that participation in this study will in no way impact their residency standing or their employment, that any of their data would be shared in a de-identified way, and all data would be stored securely in HIPAA-compliant databases.

Outcomes and Evaluation Plan

In regards to Specific Aim 2, frequencies and proportions of questions concerning resident knowledge of microaggressions in the workplace will be produced across study groups. Non-parametric pre-post analyses via Kruskal-Wallis tests will be conducted to make multiple comparisons across the study groups. Similar methodologies will be utilized to evaluate the differences among the SIM and RISE UP curriculum intervention groups.

Specific Aim 3 will qualitatively characterize the experiences of residents as they relate to microaggressions in the workplace, as per open-response questions given immediately after the intervention. We will evaluate how the participants' experience in each intervention has been transformative and compare the descriptions of previous microaggressions and their proposed management compares across groups. Lastly, we will assess whether participants are able to identify potential barriers and solutions to coping with microaggressions in the workplace. All responses to the open-ended survey questions will undergo thematic analysis utilizing the six-phase methodology outlined by Braun and Clarke³².

Success of this proposed project will be evaluated by a high degree of participation from our potential participants (>75% participation) and by a significant difference on survey questions indicating participants' ability to identify and their self-reported comfort discussing and responding to microaggressions in the SIM group vs. the RISE UP and control groups, and significantly higher participant satisfaction scores in the SIM group vs. the RISE UP and control groups.

We anticipate that participants in both the SIM and RISE UP group will indicate a higher degree of comfort in their ability to identify and respond to microaggressions and bias in the workplace as compared to the control group, both immediately and 1 month after the pre-selected intervention. We anticipate that participants in the SIM group as compared to the RISE UP group will show greater gains on instruments measuring their comfort in identifying and responding to microaggressions and bias in the workplace on both immediate and 1 month post-intervention measures. We anticipate qualitative data that will demonstrate differences in descriptions of microaggressive experiences and proposed solutions in the open-response questions amongst the various groups. We anticipate that both the SIM and RISE UP group will show a noticeable difference in thematic analysis of responses as compared to control, and we are interested to see whether there will be a difference in responses between the SIM and RISE UP groups.

This proposed project will impact future learners by offering a novel, simulation-based training program to teach EM residents how to identify and manage microaggressions. If effective, this curriculum can improve physician confidence in standing up to and addressing potentially damaging microaggressions and statements of bias, which will in turn improve physician confidence and satisfaction and reduce physician burnout. These outcomes should help improve patient care by improving the physician-patient relationship, allowing physicians to focus less on microaggressions and more on providing high-quality patient care. After the funding period is complete, we plan to continue this novel simulation curriculum by incorporating it as part of the standard educational program for all EM residents at our institution.

Plan for dissemination of project outcomes regionally and nationally

We plan to present preliminary data at sponsored Academy for Medical Educators events and the Society for Academic Emergency Medicine Academic Assembly in 2023 and 2024. In addition, we plan to disseminate our SIM curriculum and our data in the form of scholarly publications, with target publications including *MedEdPORTAL* (for description of curriculum), *Academic Emergency Medicine*, *Medical Teacher* and *Journal of Graduate Medical Education*. We hope to promote implementation of our novel curriculum within other Hofstra/Northwell residency programs and the Zucker School of Medicine and to other programs nationwide.

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Necessary Addendums/Appendices

Please see the following surveys attached below:

1. Baseline Survey
2. SIM Group Post-Intervention Survey
3. RISE UP Group Post-Intervention Survey
4. Control Group Post-Intervention Survey

1. Baseline Survey – To be given to all participants before intervention:

Baseline Survey

1. Have you personally ever witnessed bias in the medical workplace against a medical provider? * Mark only one.

Yes / No / Unsure

2. Have you personally ever experienced bias in the medical workplace?

Yes / No / Unsure

3. If you answered yes to either of the previous 2 questions, please select the role of the person(s) who demonstrated biased behavior. * Check all that apply.

- N/A, I answered No to both of the previous two questions
- Patient
- Family member of the patient
- Nurse
- Resident
- Faculty
- Medical Student
- Other Medical Professional (RT, Med Tech, EMT, etc)
- Other:

4. If you were to experience bias, where would you seek support on campus?

- Employee Assistance Program (EAP)
- Human Resources
- I am unsure where to seek support
- I would not seek on campus support
- Other: _____

5. How comfortable do you feel discussing bias as it relates to the following topics with colleagues? * Mark only one per topic.

Race or Ethnicity: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Gender, gender identity or gender expression: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Sexual orientation: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Spirituality and faith: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

6. In the event that you were a victim of bias from one of your patients, How comfortable do you feel discussing bias as it relates to the following topics? * Mark only one per topic.

Race or Ethnicity: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Gender, gender identity or gender expression: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Sexual orientation: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Spirituality and faith: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

7. Please state your level of agreement with the following statements: * Mark only one per topic.

I have the tools to respond to discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I know how to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I can demonstrate how to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I am able to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

8. Please state your level of agreement with the following statements: * Mark only one per topic.

I have the tools to report discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I know how to report witnessed or experienced discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I can demonstrate how to escalate witnessed or experienced discriminatory behavior in the workplace to the appropriate authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I am able to escalate witnessed or experienced discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

9. In the past two years have you completed formal training related to the following topics (workshops)? * *Check all that apply.*

- Implicit bias
- Cultural competency
- Difficult conversations
- Delivering feedback
- Peer support

10. Please select your role. If multiple roles, please select the one that best fits with your reason for attending this meeting. * *Mark only one.*

- Faculty
- Chief Resident
- Resident: PGY1
- Resident: PGY2
- Resident: PGY3
- Resident: PGY-4+
- Medical Student
- Prefer Not to Answer
- Other:

11. What gender do you identify as?

- Male
- Female
- Other: _____
- Prefer not to answer.

12. Please specify your ethnicity.

- Caucasian
- African American
- Latino or Hispanic
- Asian
- Native American

- Native Hawaiian or Pacific Islander
- Two or More
- Other/Unknown
- Prefer not to say

13. Age (in years) _____

2. SIM Group Post-Intervention Survey: To be given to all participants in the SIM group post-intervention:

Post-Workshop Survey

1. Have you personally ever witnessed bias in the medical workplace against a medical provider? * Mark only one.

Yes / No / Unsure

2. Have you personally ever experienced bias in the medical workplace?

Yes / No / Unsure

3. If you answered yes to either of the previous 2 questions, please select the role of the person(s) who demonstrated biased behavior. * Check all that apply.

- N/A, I answered No to both of the previous two questions
- Patient
- Family member of the patient
- Nurse
- Resident
- Faculty
- Medical Student
- Other Medical Professional (RT, Med Tech, EMT, etc)
- Other:

4. If you were to experience bias, where would you seek support on campus?

- Employee Assistance Program (EAP)
- Human Resources
- I am unsure where to seek support
- I would not seek on campus support
- Other: _____

5. How comfortable do you feel discussing bias as it relates to the following topics with colleagues? * Mark only one per topic.

Race or Ethnicity: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Gender, gender identity or gender expression: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Sexual orientation: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Spirituality and faith: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

6. In the event that you were a victim of bias from one of your patients, How comfortable do you feel discussing bias as it relates to the following topics? * Mark only one per topic.

Race or Ethnicity: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Gender, gender identity or gender expression: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Sexual orientation: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Spirituality and faith: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

7. Please state your level of agreement with the following statements: * Mark only one per topic.

I have the tools to respond to discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I know how to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I can demonstrate how to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I am able to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

8. Please state your level of agreement with the following statements: * Mark only one per topic.

I have the tools to report discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I know how to report witnessed or experienced discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I can demonstrate how to escalate witnessed or experienced discriminatory behavior in the workplace to the appropriate authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I am able to escalate witnessed or experienced discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

9. In the past two years have you completed formal training related to the following topics (workshops)? * Check all that apply.

- Implicit bias
- Cultural competency
- Difficult conversations
- Delivering feedback
- Peer support

10. Please indicate your level of agreement with the following statements about the simulation module: Mark only one per topic.

Level of realism:

The simulation was realistic and got my heart pumping: Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

The radiographs, EKG, labs and photos were helpful: Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

Utility of debriefing

The debriefing was a positive learning experience: Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

The debriefing helped consolidate and explore what I experienced during the scenario: Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

Quality of Instruction

The instructors with enthusiastic and knowledgeable: Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

The instructors provided a safe, non-threatening and non-judgmental learning environment: Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

Overall Satisfaction

The overall simulation was useful for my training and profession: Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

The simulation prepared me to recognize and respond to bias in the medical workplace: Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

Continued sessions like this should be a mandatory part of my training and education: Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

11. Please state your level of agreement with the following statements: * *Mark only one per statement.*

I have the tools to respond to discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I know how to escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

12. Please state your level of agreement with the following statements. * *Mark only one oval per statement.*

The information covered in this workshop was useful to my professional work. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

This workshop prepared me to recognize and respond to bias in the medical workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

13. I would recommend this simulation to a colleague. * *Mark only one.*

Yes / No / Unsure

Please answer the following questions:

1. Describe a time or experience when you have witnessed microaggressions in the workplace.

2. Describe a time where you have been the target of microaggressions.
3. How do microaggressions impact patient care?
4. Do you believe you have received adequate training in DEI, and up to this point in your career?
5. What avenues can be taken to improve education and training in DEI topics?

3. RISE UP Group Post-Intervention Survey – to be given to participants in the RISE UP group post-intervention:

Post-Workshop Survey

1. Have you personally ever witnessed bias in the medical workplace against a medical provider? * Mark only one.

Yes / No / Unsure

2. Have you personally ever experienced bias in the medical workplace?

Yes / No / Unsure

3. If you answered yes to either of the previous 2 questions, please select the role of the person(s) who demonstrated biased behavior. * Check all that apply.

- N/A, I answered No to both of the previous two questions
- Patient
- Family member of the patient
- Nurse
- Resident
- Faculty
- Medical Student
- Other Medical Professional (RT, Med Tech, EMT, etc)
- Other:

4. If you were to experience bias, where would you seek support on campus?

- Employee Assistance Program (EAP)
- Human Resources
- I am unsure where to seek support
- I would not seek on campus support
- Other: _____

5. How comfortable do you feel discussing bias as it relates to the following topics with colleagues? * Mark only one per topic.

Race or Ethnicity: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Gender, gender identity or gender expression: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Sexual orientation: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Spirituality and faith: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

6. In the event that you were a victim of bias from one of your patients, How comfortable do you feel discussing bias as it relates to the following topics? * Mark only one per topic.

Race or Ethnicity: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Gender, gender identity or gender expression: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Sexual orientation: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Spirituality and faith: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

7. Please state your level of agreement with the following statements: * Mark only one per topic.

I have the tools to respond to discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I know how to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I can demonstrate how to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I am able to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

8. Please state your level of agreement with the following statements: * Mark only one per topic.

I have the tools to report discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I know how to report witnessed or experienced discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I can demonstrate how to escalate witnessed or experienced discriminatory behavior in the workplace to the appropriate authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I am able to escalate witnessed or experienced discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

9. In the past two years have you completed formal training related to the following topics (workshops)? * Check all that apply.

- Implicit bias
- Cultural competency
- Difficult conversations
- Delivering feedback
- Peer support

10. After attending the RISE UP workshop, how comfortable do you feel discussing bias as it relates to the following topics with colleagues? * Mark only one per topic.

Race or Ethnicity: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Gender, gender identity or gender expression: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Sexual orientation: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Spirituality and faith: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

11. Think about the STR Tool (Stop, Talk, and Roll) for responding to experienced or witnessed bias when rating your agreement with the following statements. * Mark only one per statement.

The STR Tool is easy to learn. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

The STR Tool is easy to remember. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

The STR Tool is an effective method for responding to bias in the medical workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I am satisfied with the STR Tool. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I will likely use the STR Tool if responding to bias in the future. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

12. Think about the STEP Tool (Step back, Think through biases, Evaluate emotions, Prevent patient impact) for addressing personal biases when rating your agreement with the following statements. * Mark only one per statement.

The STEP Tool is easy to learn. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

The STEP Tool is easy to remember. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

The STEP Tool is an effective method for responding to bias in the medical workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I am satisfied with the STEP Tool. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I will likely use the STEP Tool if addressing my personal biases in the future. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

13. Think about the DARE Tool (Discover, Actively listen, Recognize, Educate) for providing peer support when rating your agreement with the following statements. * Mark only one per statement.

The DARE Tool is easy to learn. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

The DARE Tool is easy to remember. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

The DARE Tool is an effective method for responding to bias in the medical workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I am satisfied with the DARE Tool. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I will likely use the DARE Tool if providing peer support in the future. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

14. Think about the Example Scripts (What to say to when responding to racism) used during small group discussion and role-play. * Mark only one per statement.

The Scripts were helpful examples of what to say when encountering bias. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I will likely use one of these Scripts if responding to bias in the future. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

Role-playing to practice these Scripts was beneficial. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

Please answer the following questions:

6. Describe a time or experience when you have witnessed microaggressions in the workplace.
7. Describe a time where you have been the target of microaggressions.
8. How do microaggressions impact patient care?
9. Do you believe you have received adequate training in DEI, and up to this point in your career?
10. What avenues can be taken to improve education and training in DEI topics?

4. Control Group Post-Intervention Survey – to be given to the control group at the time that they would have been scheduled for an intervention (if not for scheduling conflict):

Post-Workshop Survey

1. Have you personally ever witnessed bias in the medical workplace against a medical provider? * Mark only one.

Yes / No / Unsure

2. Have you personally ever experienced bias in the medical workplace?

Yes / No / Unsure

3. If you answered yes to either of the previous 2 questions, please select the role of the person(s) who demonstrated biased behavior. * Check all that apply.

- N/A, I answered No to both of the previous two questions
- Patient
- Family member of the patient
- Nurse
- Resident
- Faculty
- Medical Student
- Other Medical Professional (RT, Med Tech, EMT, etc)
- Other:

4. If you were to experience bias, where would you seek support on campus?

- Employee Assistance Program (EAP)
- Human Resources
- I am unsure where to seek support
- I would not seek on campus support
- Other: _____

5. How comfortable do you feel discussing bias as it relates to the following topics with colleagues? * Mark only one per topic.

Race or Ethnicity: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Gender, gender identity or gender expression: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Sexual orientation: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Spirituality and faith: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

6. In the event that you were a victim of bias from one of your patients, How comfortable do you feel discussing bias as it relates to the following topics? * Mark only one per topic.

Race or Ethnicity: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Gender, gender identity or gender expression: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Sexual orientation: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

Spirituality and faith: Very comfortable / Comfortable / Neither comfortable nor uncomfortable / Uncomfortable / Very uncomfortable

7. Please state your level of agreement with the following statements: * Mark only one per topic.

I have the tools to respond to discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I know how to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I can demonstrate how to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I am able to de-escalate witnessed or experienced discriminatory behavior in the workplace. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

8. Please state your level of agreement with the following statements: * Mark only one per topic.

I have the tools to report discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I know how to report witnessed or experienced discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I can demonstrate how to escalate witnessed or experienced discriminatory behavior in the workplace to the appropriate authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

I am able to escalate witnessed or experienced discriminatory behavior in the workplace to higher authorities. Strongly Agree / Agree / Neither agree nor disagree / Disagree / Strongly Disagree

9. In the past two years have you completed formal training related to the following topics (workshops)? * *Check all that apply.*

- Implicit bias
- Cultural competency
- Difficult conversations
- Delivering feedback
- Peer support

Please answer the following questions:

11. Describe a time or experience when you have witnessed microaggressions in the workplace.

12. Describe a time where you have been the target of microaggressions.

13. How do microaggressions impact patient care?

14. Do you believe you have received adequate training in DEI, and up to this point in your career?

15. What avenues can be taken to improve education and training in DEI topics?

4. PROJECT TIMELINE

Months 1-3

Curriculum Build (6 weeks)

Simulation cases and debriefing guides will be created based upon Kern's 6-step approach to curriculum design and utilizing available best practices on the identification and management of microaggressions, discrimination, bias and racism, including those encountered in the medical workplace. Simulation cases will be piloted at the Center For Learning and Innovation (CLI) and revised based upon experience and feedback.

Preparation (6 weeks)

The study faculty will review both the RISE UP curriculum and novel SIM curriculum with all involved study staff (including EM Sim faculty) who will be involved in administering the curriculum. Ample time will be provided to ask questions and to review curricula in their entirety. At this time, residents will be e-mailed the study consent form, asking whether they would like to consent to this study.

Months 4-7

Curriculum Implementation (6 weeks)

One Wednesday per week for each of 6 weeks, 8-12 EM residents of varying training levels will report to CLI to participate either the SIM-based or the didactic-based RISE UP microaggression training curriculum. Three of the weeks the SIM curriculum will be offered, while the other 3 weeks the RISE UP curriculum will be offered. At that time, additional residents will have the opportunity consent to participate in the research study if they hadn't consented to participation already. The residents who consent for the study will then be given the baseline survey prior to participation in the session. Participants will then undergo the educational program (either SIM or RISE UP) and will be given the post-intervention survey to fill out prior to leaving the session. Residents in the control group will be sent the baseline and post-intervention surveys to fill out on the day that they would have otherwise been scheduled to attend their in-person educational SIM session.

Follow-up (4 weeks)

The follow-up survey will be sent out to participants one month (4 weeks) after the completion of their intervention (or the date they would have otherwise been scheduled for SIM if they were in the control group). Thus, the last batch of follow-up surveys will therefore be sent out 4 weeks after the end of the last week of curriculum.

Months 7-12

Statistical analysis (8 weeks)

Quantitative and qualitative analysis will be performed on the data by the study team as described in the project proposal.

Manuscript writing: (8 weeks)

The PI and co-investigators will write up the results in the form of a manuscript for submission for peer-reviewed publication. We anticipate at least 2 publications from this study: (1) submission of the SIM curriculum *MedEdPORTAL* or another publication, (2-3) submission of

the quantitative and qualitative results in one or more publications. The first manuscript will be prepared and submitted during this time and writing will begin on the second (and possibly third) manuscript(s).

Data review, national meeting preparation

During this time, innovation and preliminary study data will be prepared for submission and presentation at regional and national meetings, such as at Academy for Medical Educators sponsored events and at the Society for Academic Emergency Medicine Academic Assembly.

Months 12-24

Data review, manuscript writing, national meeting preparation

Continued review of qualitative and quantitative data and writing of additional manuscripts for submission to peer-reviewed publications. Submission, preparation and presentation of study results to regional and national conferences, including, but not limited to: Academy for Medical Educators sponsored events and at the Society for Academic Emergency Medicine Academic Assembly.

5. BUDGET
Itemized Costs

| Item | Quantity | Total Item Cost |
|---|-----------------|------------------------|
| Research Assistant salary support (7% effort) | 1 | \$3,959.86 |
| Manuscript publication cost | 1 | \$1,000.00 |
| Total Requested | | \$4,959.86 |

Statement of Justification

We are requesting a total of \$4,959.86 to support this research proposal.

Partial salary support (7%) for a Research Assistant is being requested. The Research Assistant will create and maintain the REDCap database that will be used for all survey assessments. They will also clean and prepare the data for statistical analysis.

Funding to partially cover the cost of manuscript publication in a peer-reviewed academic journal is being requested. If the cost of publication, depending on journal, exceeds \$1,000, the Department of Emergency Medicine will cover the difference.

6. BIOGRAPHICAL SKETCHES

Please see attached biosketch for PI: Tiffany Moadel, MD.

COLLABORATORS:

Sophia Gorgens, MD and David Fernandez, MD

Drs. Gorgens and Fernandez are both senior Emergency Medicine residents. Along with Dr. Moadel (PI), Drs. Gorgens and Fernandez will be responsible for all research activities presented in this proposal, including implementation, data collection and maintenance and dissemination of study results. They will also assist in the analysis of the qualitative and quantitative data. Their extensive experience in scientific writing, editing, and publication will be invaluable to any scholarly work resulting from this proposal.

Michael Cassara, DO, MEd, FACEP, CHSE

As medical director of the Center for Learning and Innovation (CLI) and as previous program director for the emergency medicine simulation fellowship, Dr. Cassara has experience with simulation and leadership at CLI that is crucial to the project. He will also act as mentor to Dr. Moadel and the research team.

Molly Pineo-McCann, PhD, MS and Timmy Li, PhD

Drs. Pineo-McCann and Li both have extensive credentials in research and have conducted and published innumerable studies. They have already shared their knowledge by assisting in the creation of the research protocol and IRB application. Furthermore, they will provide guidance in the implementation of the research as well as assisting with statistical analysis and proof-reading the manuscript.

7. LETTERS OF SUPPORT

Please see attached letter of support from Dr. Becker, Chairperson of the Department of Emergency Medicine at North Shore and Long Island Jewish Hospitals.

8. INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

Please see attached certificate indicating submission of research protocol to the IRB.

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: Moadel, Tiffany

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Medical Simulation Fellowship, Director

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

| INSTITUTION AND LOCATION | DEGREE (if applicable) | END DATE MM/YYYY | FIELD OF STUDY |
|--|---------------------------|---------------------|---------------------------|
| Yale School of Medicine, New Haven, CT | Fellow | 07/2015 | Medical Simulation |
| Stony Brook University Hospital, Stony Brook, NY | Resident | 07/2014 | Emergency Medicine |
| Stony Brook School of Medicine, Stony Brook, NY | MD | 05/2011 | Medicine |
| Barnard College, Columbia University, New York, NY | BA | 05/2006 | Neuroscience and Behavior |

A. Personal Statement

As an academic emergency medicine physician specializing in medical simulation, my role is to harness my experience as an educator and investigator to shed light on the best ways to teach medical trainees with the use of simulation, in order to ultimately improve patient care.

Early on in my career, as the academic chief resident at the Stony Brook School of Medicine, I developed and executed the yearly didactic program for our residents, utilizing innovative techniques in simulation and team-based learning. At the same time, I also enrolled in the American College of Emergency Physicians Teaching Fellowship, which has further helped to support my personal development as an educator. After residency, I completed a Medical Simulation fellowship at the Yale School of Medicine, where I developed the skills necessary for the development, execution and debriefing of simulation activities, while also completing the globally accepted Comprehensive Instructor Workshop in Medical Simulation at the Center for Medical Simulation in Cambridge, MA. As a fellow at the Yale School of Medicine, I also enrolled in their Medical Education Fellowship, where I learned research methodology which aided me in the development of a medical education research project on the use of simulation for summative and formative assessment of trainees. I was the PI on this externally grant-funded project, titled, "Entrustable Professional Activities: Can Simulation be Used to Assess Competency?" Following fellowship, I took a position as the Director of Medical Student Simulation within the Yale Center for Medical Simulation, where I continued to work on this project while also creating and executing the simulation curricula for students within the Yale School of Medicine.

In my current role, I serve as the Director of Medical Student Simulation and Director of the Medical Simulation Fellowship at the Zucker School of Medicine at Hofstra/Northwell Health and the Emergency Medicine Service Line at Hofstra/Northwell. My research interests include development of novel educational tools and innovative methods to bolster learning in medical trainees. I am currently interested in exploring novel ways of using simulation to teach trainees on topics related to diversity, equity and inclusion. I feel that I have the experience, expertise and skills necessary to successfully execute the proposed project, **Novel, Simulation-Based Microaggression Response Training in Emergency Medicine**. If I were granted the Academy for Medical Educators Innovation in Medical Education Grant, I would be able to successfully accomplish all necessary grant requirements for this project. In addition to my previous experience, the resources available to me through the Department of Emergency Medicine at the Zucker School of Medicine and institutional support from my Chairperson will ensure the successful completion of this project.

B. Positions, Scientific Appointments and Honors

Positions and Scientific Appointments

| | |
|-------------|--|
| 2021 - | Medical Simulation Fellowship, Director, Emergency Medicine Service Line at Hofstra/Northwell Health, Manhasset, NY |
| 2019 - 2021 | Medical Simulation Fellowship, Co-Director, Emergency Medicine Service Line at Hofstra/Northwell Health, Manhasset, NY |

- 2017 - Medical Student Simulation Director, North Shore/LIJ Department of Emergency Medicine, Hofstra/Northwell, Manhasset, NY
- 2017 - Assistant Professor, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell
- 2017 - 2020 Assistant Clinical Instructor, Yale School of Medicine, New Haven, CT
- 2016 - 2017 Course Director, Medical Simulation Elective, Yale School of Medicine, New Haven, CT
- 2015 - 2017 Director of Medical Student Simulation, Yale Center for Medical Simulation, New Haven, CT
- 2014 - 2017 Clinical Instructor in Emergency Medicine, Yale School of Medicine, New Haven, CT
- 2011 - 2014 Clinical Assistant Instructor in Emergency Medicine, Stony Brook University Hospital, Stony Brook, NY

Honors & Awards

- 2018 Young Educator Award, Society for Academic Emergency Medicine Simulation Academy
- 2017 Fellow Designation, American College of Emergency Physicians
- 2017 Society for Simulation in Healthcare Novice Research Grant, PI, \$5000 award for project, "Entrustable Professional Activities: Can Simulation be Used to Assess Competency?"
- 2017 Academy for American Medical Colleges/Northeast Group on Educational Affairs Collaborative Research Grant, Co-PI, \$3000 award for project, "Entrustable Professional Activities: Can Simulation be Used to Assess Competency?"
- 2014 Resident Award for Excellence in Teaching, Stony Brook University Hospital Department of Emergency Medicine
- 2014 Resident Award for Excellence in Research, Stony Brook University Hospital Department of Emergency Medicine
- 2014 Resident Award for Best Research Presentation, Stony Brook University Hospital Department of Emergency Medicine
- 2014 Faculty Development Scholarship Award, Council of Residency Directors in Emergency Medicine (CORD EM)
- 2013 - 2014 Academic Chief Resident, Department of Emergency Medicine, Stony Brook University Hospital
- 2012 Outstanding Intern of the Year Award, Stony Brook University Hospital Department of Emergency Medicine
- 2011 MD With Distinction in Research Award, Stony Brook School of Medicine

C. Contribution to Science

1. Early Career – Basic Science and Clinical Research: My contributions prior to and during medical school focused on application of basic training in microbiology and immunology to study novel treatments for cancer and infectious disease and the neurobiology behind mental illness. Full bibliography can be accessed: <https://www.ncbi.nlm.nih.gov/sites/myncbi/10IdlyvADOGQy/bibliography/41322499/public/?sort=date&direction=descending>
2. Postgraduate Career: My contributions have shifted towards simulation-based endeavors focused on curricular development, innovations and best practices. Select work is listed below. My full bibliography of work is available at: <https://scholar.google.com/citations?hl=en&user=50R70zgAAAAJ>
 - a. Stapleton SN, Cassara M, **Moadel T**, Munzer B, Sampson C, Wong AH, Chopra E, Kim J, Bentley S. Procedural task trainer gaps in emergency medicine: A rift in the simulation universe. *AEM Educ Train*. 2022; 6(Suppl. 1): S32– S42. Doi: [10.1002/aet2.10749](https://doi.org/10.1002/aet2.10749)
 - b. Sampson C, Lai S, **Moadel T**, Baer H, Waseem M. Simulation Case 6: Foreign Body Aspiration. In: Burns RA, ed. *Emergency Medicine Resident Simulation Curriculum for Pediatrics (EM ReSCu Peds)*. Academic Life in Emergency Medicine; 2021:188-214. ISBN 978-0-9992825-8-8.
 - c. Stapleton SN, Wong AH, Ray JM, Rider AC, **Moadel T**, Bentley S, Cassara M. Virtual Mentoring: Two Adaptive Models for Supporting Early-career Simulation Investigators in the Era of Social Distancing. *AEM Educ Train*. 2020 Oct 21;5(1):105-110. doi: 10.1002/aet2.10540
 - d. Nadir N, Hart D, Cassara M, Noelker J, **Moadel T**, Kulkarni M, Sampson CS, Bentley S, Naik NK, Hernandez J, Krzyzaniak SM, Lai S, Podolej G, Strother C. Simulation-based Remediation in Emergency Medicine Residency Training: A Consensus Study. *West J Emerg Med*. 2019 Jan;20(1):145-156. doi: 10.5811/westjem.2018.10.39781. PMID: 30643618.
 - e. Frallicciardi A, Vora S, Bentley S, Nadir N, Cassara M, Hart, D, Park C, Cheng A, Aghera A, **Moadel T**, Dobiesz V. Development of an Emergency Medicine Simulation Fellowship Consensus Curriculum: Initiative of the Society for Academic Emergency Medicine Simulation Academy. *Acad Emerg Med*. 2016 September 6, 23(9): 1045-1060. doi: 10.1111/acem.13019. PMID: 27251553.

Department of Emergency Medicine
North Shore University Hospital | Long Island Jewish Medical Center

November 11, 2022

Dear Academy for Medical Educators Grant Review Committee,

As the Chair of the Department of Emergency Medicine at North Shore University Hospital (NSUH) and Long Island Jewish Medical Center (LIJMC) and Professor and Chair of the Department of Emergency Medicine at the Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, I am pleased to write this letter of support for Dr. Tiffany Moadel and her application for the Academy for Medical Educators Dean's Fund for Innovation in Medical Education Grant for her project entitled "Novel, Simulation-Based Microaggression Response Training in Emergency Medicine".

Dr. Moadel joined our department four years ago from Yale and serves as Assistant Professor at the Zucker School of Medicine, Director of Medical Student Simulation, and Director for the Emergency Medicine Service Line Fellowship in Medical Simulation. As a junior to mid-career faculty member, Dr. Moadel's academic productivity has been impressive. She is recognized nationally as a leader in simulation-based medical education and currently serves as the Treasurer of the Society for Academic Emergency Medicine Simulation Academy's Executive Board. She also recently served as the Vice-Chair and Chair of the Council for Residency Directors in Emergency Medicine Simulation Community of Practice from 2020-2022. In 2017, Dr. Moadel successfully applied for and obtained the Society for Simulation in Healthcare Novice Research Grant and the American Academy for Medical Colleges Northeast Group on Educational Affairs Collaborative Research Grant for her project, "Entrustable Professional Activities: Can Simulation be Used to Assess Competency?" She has published a number of research articles and educational materials on the topics of simulation and medical education and lectures nationally on innovations and best practices in simulation-based medical education.

If selected for the Dean's Fund for Innovation in Medical Education Grant, Dr. Moadel will create, implement, and evaluate a novel, simulation-based curriculum for teaching emergency medicine trainees how to identify and address microaggressions and bias in the workplace. I feel that this study is of great importance not only to trainees in emergency medicine, but more broadly to all members of a patient-facing healthcare team, as it highlights the often overlooked, yet important skills for identifying and dealing with bias and systemic racism in the workplace. There exists a gap in the medical education literature on interactive ways to teach trainees about the topics related to diversity, equity, and inclusion, and Dr. Moadel's proposed innovation would address this void.

The emergency departments at NSUH & LIJMC have the unique research infrastructure and expertise necessary to support a study of this kind. In addition to advancing her own academic development, Dr. Moadel's proposed study has the potential to contribute significantly to the body of knowledge in simulation-based medical education and diversity, equity, and inclusion.

In conjunction with my roles as Department Chair and Professor, I am an independently NIH-funded clinical researcher with decades of experience designing and implementing translational research

studies in emergency medicine, critical care, and resuscitation science. I have a long track record of mentoring junior and senior faculty members on several K awards and other federally funded grants. If Dr. Moadel's proposal is funded, I will ensure that she has access to all the resources that the Zucker School of Medicine and the Feinstein Institutes for Medical Research have to offer. Specifically, I will ensure that she will receive the administrative and technical resources necessary for project completion as well as for scholarly development. Please do not hesitate to reach out to me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. Becker', written in a cursive style.

Lance B. Becker, MD, FAHA

Chair, Department of Emergency Medicine
North Shore University Hospital & Long Island Jewish Medical Center at Northwell Health

Professor and Chair, Department of Emergency Medicine
Donald & Barbara Zucker School of Medicine at Hofstra/Northwell

Professor, Institute of Bioelectronic Medicine
Feinstein Institutes for Medical Research



Tiffany Moadel <tmoadel@gmail.com>

FW: [EXTERNAL] New IRB Application - Requires PI Signature - Novel, Simulation-Based Microaggression Response Training in Emergency Medicine

1 message

Moadel, Tiffany <tmoadel@northwell.edu>
To: Tiffany Moadel <Tmoadel@gmail.com>

Mon, Nov 14, 2022 at 12:47 PM

From: IRB Inbox <irb@northwell.edu>
Date: Friday, November 11, 2022 at 2:33 PM
To: Moadel, Tiffany <tmoadel@northwell.edu>
Subject: [EXTERNAL] New IRB Application - Requires PI Signature - Novel, Simulation-Based Microaggression Response Training in Emergency Medicine

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A new IRB application has been submitted, on which you are listed as the PI. Please log in to IRBManager to sign off on the study.

Study Title: Novel, Simulation-Based Microaggression Response Training in Emergency Medicine

Submitted by: Sophia Gorgens

Please click [Initial Submission Application](#) to go directly to the application.

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