

# Upstanding and Interrupting Biases: Understanding the Impact of Different Curriculum Delivery Models and Student Identity on Learner Outcomes

# Yasmine Dakhama, BS; Mary Wang, BA; Anna Neumeier, MD

#### **BACKGROUND**

Experiences of racism, discrimination, and microaggressions (RDM) have been correlated with higher rates of positive depression screening and lower satisfaction with medical training.<sup>1</sup> Power differentials faced by medical students can make acts of RDM challenging to address.<sup>2</sup> Previously, we demonstrated that our curriculum increased student awareness of RDM, knowledge of communication strategies to mitigate RDM, and confidence to address RDM.<sup>3</sup> In this study, we examine the curriculum's efficacy among two models of curriculum delivery (in-person vs virtual). Additionally, we investigate if learners who identify as under-represented in medicine (URM) have a different impact when participating in upstander training, a factor that has not been previously characterized.

## QUESTIONS

- 1. Is there a difference in learner outcomes between in-person vs virtual curriculum delivery?
- 2. Is there a difference in learning outcomes among learners who self-identify as under-represented in medicine (URM) compared to learners who do not (nURM)?

# MATERIALS & METHODS

We examined learner outcomes in two sessions: virtually in January 2022 and inperson in September 2022.

- Small group sessions were co-facilitated by faculty and senior medical students; all facilitators attended a pre-session training.
- Learner knowledge and confidence was assessed using anonymous pre- and postsession surveys, as measured on Likert scales
- Responses between groups were compared using t-tests.

# RESULTS

Figure 1. Virtual and In-Person Learners Reported Increased Knowledge and Confidence in Addressing RDMs

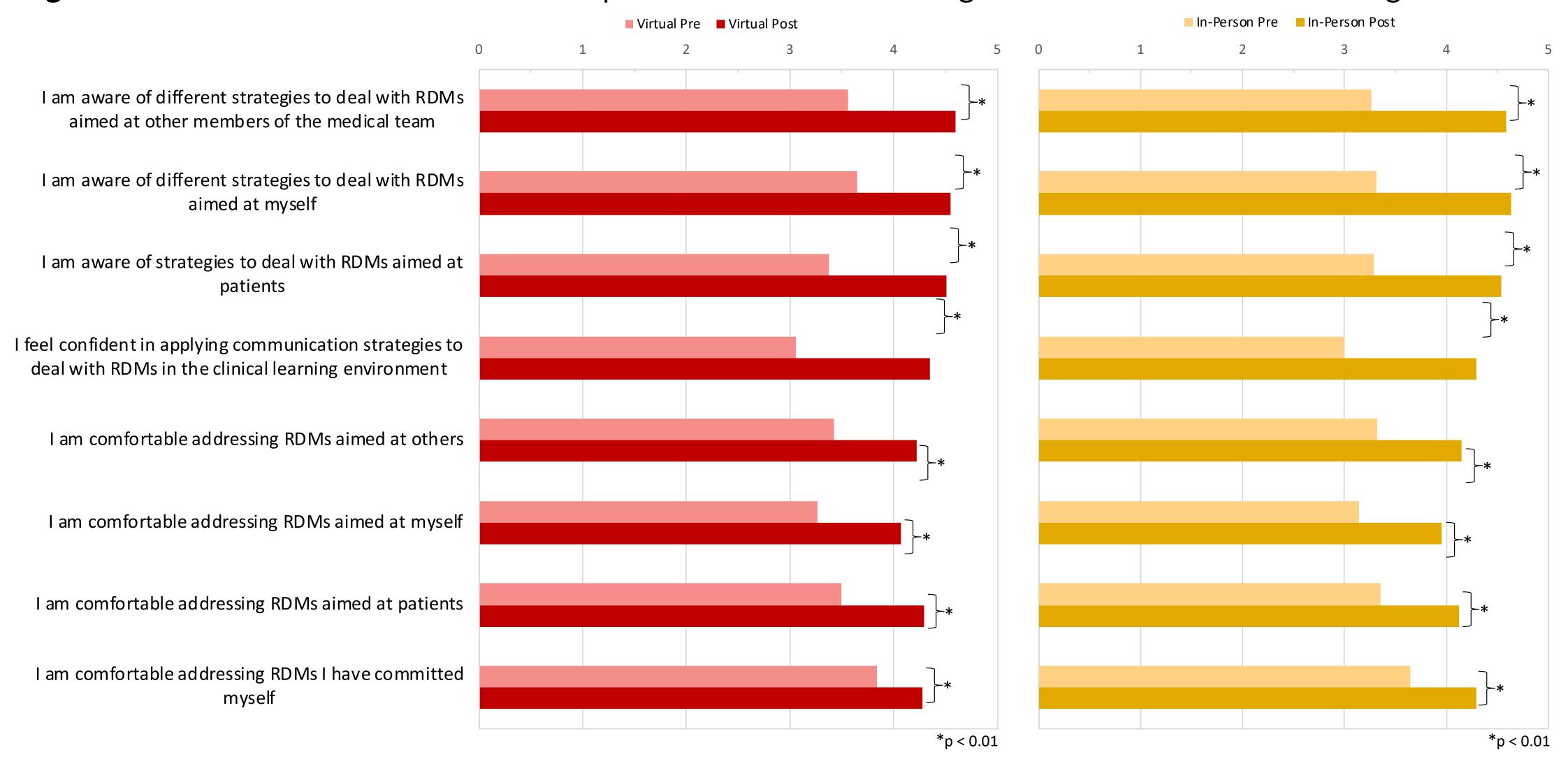
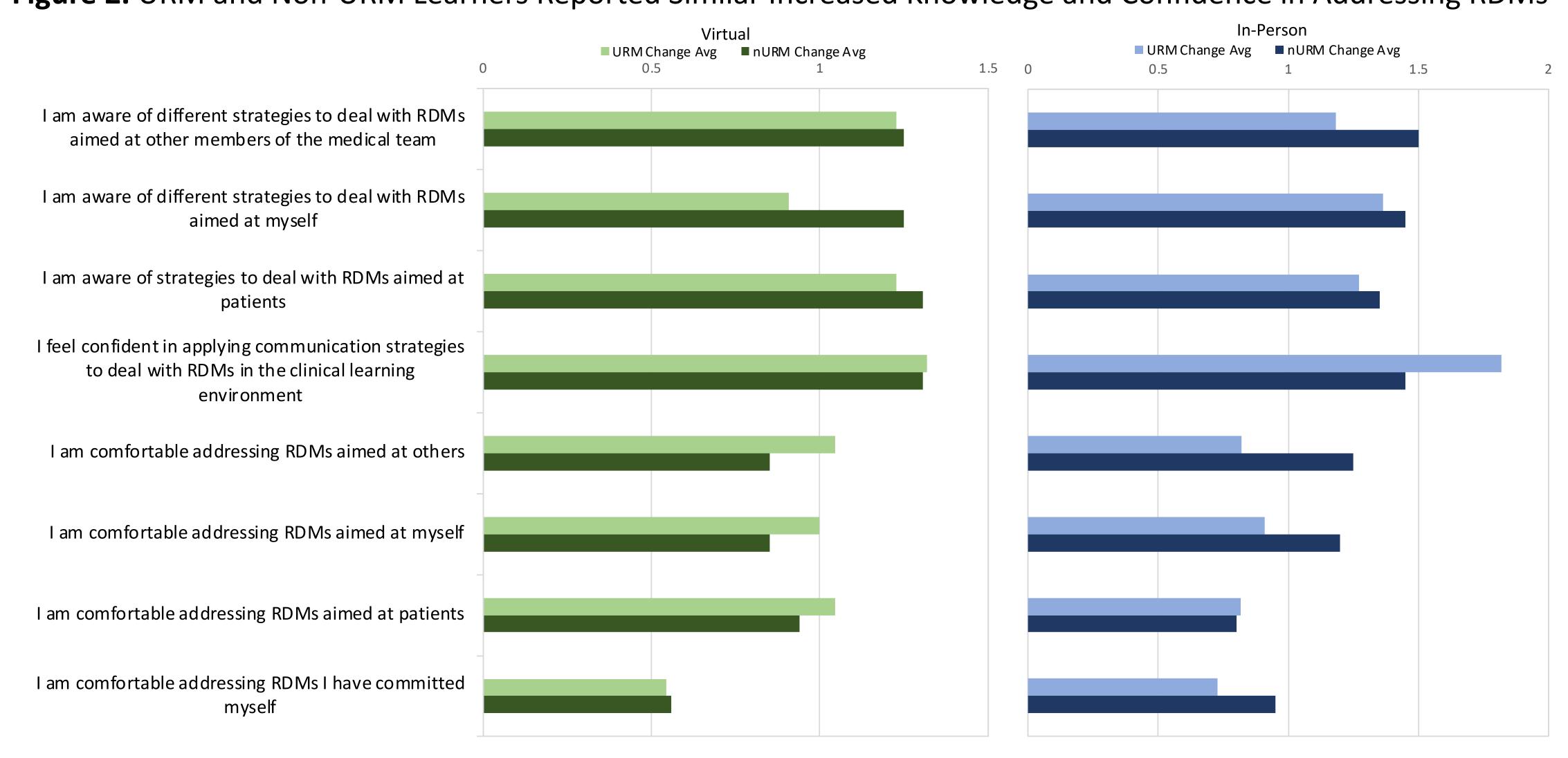


Figure 2. URM and Non-URM Learners Reported Similar Increased Knowledge and Confidence in Addressing RDMs



Session	# of attendees	Completed Surveys		
		Pre-session	Post-session	Paired
Virtual	157	121 (77%)	82 (53%)	58 (37%)
In-person	195	149 (76%)	41 (27%)	31 (21%)

#### DISCUSSION

- Across every measure, students demonstrated a statistically significant increase in knowledge content and confidence on how to address instances of RDMs in the clinical environment.
- Learning outcomes did not differ between in-person and virtual delivery methods nor with learner background.
- URM and nURM learners reported a similar increase in knowledge and confidence with addressing RDMs

## LIMITATIONS

- As responses were collected voluntarily, the post-session completion rate was low limiting the proportion of paired analyses. This may have affected the power to detect differences in curricular impact and educational outcomes.
- Self-assessed confidence and knowledge may not correlate with competence.

#### DISCLOSURES

- The program evaluation was submitted to the University of Colorado Institutional Review Board and deemed exempt from formal review.
- The authors do not have any conflict of interest to disclose.
- No funding was acquired for this study.

# REFERENCES

<sup>1</sup>Anderson N, Lett E, Asabor EN, et al. The Association of Microaggressions with Depressive Symptoms and Institutional Satisfaction Among a National Cohort of Medical Students. *J Gen Intern Med*. 2022;37(2):298-307. doi:10.1007/s11606-021-06786-6

<sup>2</sup>Sotto-Santiago S, Mac J, Duncan F, Smith J. "I Didn't Know What to Say": Responding to Racism, Discrimination, and Microaggressions With the OWTFD Approach. *MedEdPORTAL*. 2020;16:10971. Published 2020 Jul 31. doi:10.15766/mep\_2374-8265.10971

<sup>3</sup>Neves da Silva HV, Heery LM, Cohen WR, et al. What Happened and Why: Responding to Racism, Discrimination, and Microaggressions in the Clinical Learning Environment. *MedEdPORTAL*. 2022;18:11280. Published 2022 Nov 1. doi:10.15766/mep\_2374-8265.11280

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