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## Introduction

Implicit bias refers to the subconscious attitudes and stereotypes that individuals hold about various groups, often affecting their judgments and actions without conscious awareness. Within the medical field, implicit biases can manifest in differential treatment of patients, disparities in hiring and promotion, and unequal access to opportunities for medical professionals, particularly along gender lines.

The role of implicit bias in healthcare has gained attention due to its potential to impact decision-making. Significant implicit biases can significantly affect the working environment, influence patient care, and contribute to disparities in healthcare outcomes. Recognizing the gravity of this issue, it is now more crucial than ever for medical practitioners and institutions to proactively address these biases to ensure equitable and high-quality healthcare for all.

This research aims to contribute to the ongoing efforts to combat implicit bias within the medical community. The focus of this study is an educational workshop designed to introduce participants to the concepts of implicit bias and microaggressions. By providing healthcare professionals with the knowledge and tools necessary to recognize and address these biases, we aim to catalyze positive change within the medical community.

## Methods

- Prospective study, exempt status IRB approval
- Participants: Otolaryngology Residency programs from the Northeastern, Southern, Midwestern, and Western regions
- One-hour workshop session
  - 10-question pre-workshop electronic survey distributed prior to educational session
  - Included a didactic presentation, live simulation, and panel discussion.
  - Participants divided into groups of 4-6 for simulated cases
  - 9-question post-workshop electronic survey distributed after educational session
- Analysis
  - Descriptive demographic data, including gender, institution, stage of training, and years of practice
  - Numerical responses from pre- and post-workshop questions utilizing 5-point Likert scale analyzed using a Wilcoxon signed rank test
  - Data was stratified by gender, residency program, and level of training

## Acknowledgements

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**Table 1. Median familiarity with implicit bias pre- and post-workshop by gender, training level, and residency program (n=141)**

	Pre-workshop	Post-workshop	p-value
<b>Overall</b>	4 (3, 5)	5 (4, 5)	<b>&lt;0.001</b>
<b>By gender:</b>			
Female	4 (3, 5)	5 (4, 5)	<b>&lt;0.001</b>
Male	4 (3, 4)	4 (4, 5)	<b>&lt;0.001</b>
<b>By training level/provider role:</b>			
Resident	4 (3, 4)	5 (4, 5)	<b>&lt;0.001</b>
Attending	4 (3, 5)	5 (4, 5)	<b>0.005</b>
<b>By residency program:</b>			
Site 1	5 (3, 5)	5 (4, 5)	<b>0.0190</b>
Site 2	3.5 (3, 4)	4 (4, 5)	<b>&lt;0.001</b>
Site 3	3 (3, 4)	5 (4, 5)	<b>0.027</b>
Site 4	3 (2, 3)	4 (4, 4)	<b>0.005</b>
Site 5	4 (4, 5)	5 (4, 5)	<b>0.015</b>
Site 6	4 (3, 5)	5 (4.5, 5)	<b>0.010</b>
Site 7	4.5 (4, 5)	5 (4, 5)	0.655
Site 8	3 (3, 4)	4 (4, 5)	<b>&lt;0.001</b>

**Table 2. Median preparedness to respond to implicit bias pre- and post-workshop by gender, training level, and residency program (n=141)**

	Pre-workshop	Post-workshop	p-value
<b>Overall</b>	3 (3, 4)	4 (4, 5)	<b>&lt;0.001</b>
<b>By gender:</b>			
Female	4 (3, 4)	4 (4, 5)	<b>&lt;0.001</b>
Male	3.5 (3, 4)	4 (4, 5)	<b>&lt;0.001</b>
<b>By training level/provider role:</b>			
Resident	3 (3, 4)	4 (4, 5)	<b>&lt;0.001</b>
Attending	4 (3, 4)	4 (4, 5)	<b>&lt;0.001</b>
<b>By residency program:</b>			
Site 1	4 (3, 5)	4 (4, 5)	<b>0.007</b>
Site 2	3 (2.5, 4)	4 (4, 5)	<b>&lt;0.001</b>
Site 3	3 (3, 4)	5 (4, 5)	<b>0.008</b>
Site 4	3 (2, 3)	4 (4, 5)	<b>0.001</b>
Site 5	4 (3, 4)	5 (4, 5)	<b>&lt;0.001</b>
Site 6	4 (3, 4)	5 (4, 5)	<b>&lt;0.001</b>
Site 7	4 (4, 4)	4 (4, 4)	0.158
Site 8	3 (3, 4)	4 (4, 5)	<b>&lt;0.001</b>

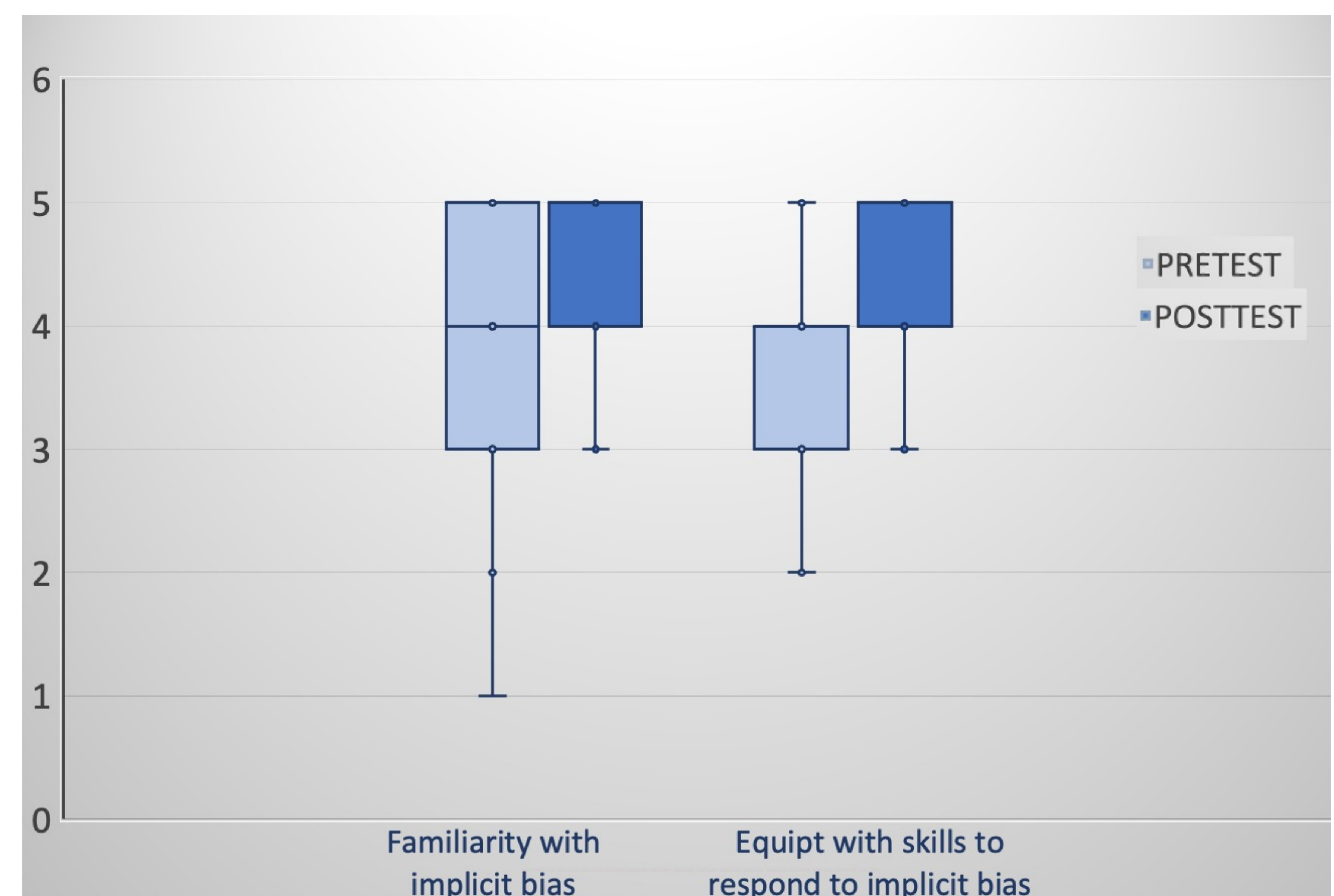
## Results

- 141 participants (eight institutions)
- 51.1% female, 45.4% male, 0.7% non-binary, 2.8% prefer not to say
- Overall increased familiarity with implicit bias in stratification by gender, training level, and residency program, apart from one site, with an overall median increase from 4 to 5 (p<0.05).
- Self-rated significant increase in preparation to handle implicit bias across stratification by gender, training level, and residency program, except for one site, with an overall median increase from 3 to 4 (p<0.05).

## Conclusion

This implicit bias workshop increases familiarity with the concept of implicit bias as well as provides increased readiness to respond to implicit bias. The workshop inspired conversation within each of the institutions, and by describing uncomfortable situations, highlights the work that still must be done to target implicit bias within healthcare.

**Figure 1. Overall median familiarity with implicit bias and readiness to respond to implicit pre- and post-workshop (n=141)**



## References

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