FACULTY DEVELOPMENT: TEACHING IMPLICIT BIAS BEFORE THE DIAGNOSTIC PROCESS

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Thank You Team!

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Faculty Development: Teaching Implicit Bias Before the Diagnostic Process

Key Concepts to Prepare Faculty Before Teaching Learners

Faculty Development

- Support and training provided to health professions educators
- To Enhance skills:
  - Teaching
  - Assessment
  - Curriculum design
  - Leadership
  - Scholarship
- ensuring high-quality learning environments and patient care

Assistant. (2025). Faculty development across the continuum discussing diagnostic equity [Digital image]. Generated by Microsoft Copilot.

ACGME Educator Milestones

Universal Pillar 3: Recognition and Mitigation of Bias				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies common and complex biases to effective education and patient care (e.g., language, disability, cultural differences, internalized oppression)	Proactively seeks to assess and reflect on one's personal biases, both explicit and implicit	Identifies strategies to mitigate the effects of bias on effective education and patient care	Addresses personal biases and proactively mitigates the effects of personal bias in effective education and patient care	Mentors others on recognition and mitigation of bias
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐				
Comments:			Not Yet Completed Level 1 ☐	

Why Faculty Development on Diagnostic Excellence Matters?

- Diagnostic inequities impact marginalized populations
- Implicit bias contributes to diagnostic errors and delays
- Faculty must train learners to recognize and mitigate bias

Key Learning Objectives:

1. Recognize how bias affects diagnostic reasoning
2. Understand Type 1 & Type 2 thinking and premature closure
3. Apply the 12 Tips to faculty training on implicit bias

THE PEOPLE / RESOURCES:

- Diagnostic Team Member
- Technologies & Tools
- Physical Environment
- Patient Assets
- Patient's Context
- Trustworthiness/Trust

Development of Trustworthiness

(Mis)Trust

Clinician Knowledge

Role across the Continuum, learner attending

Problem Representation

Clinician Experience

Contextualization By Clinician ? Might be missed

The Diagnostic Process

Diagnostic Error Can Occur all along the Way

Communication of Diagnosis

Treatment/ Outcomes

Patient Context Experience of an Issue

Patient Engages with Health System

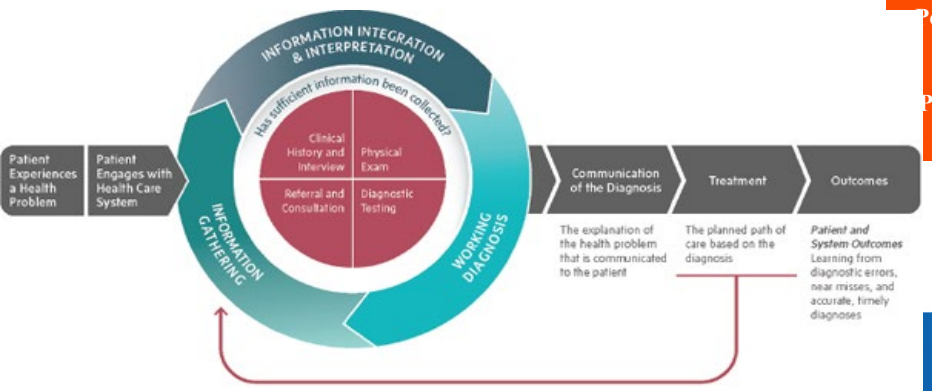
PT Story

Data Acquisition Information Gathering History Taking/ Communication Skills

Information Integration & Interpretation

Working Dagnosis Possibilities are limited by access to data, experience Possible AI integration

Hypothesis



Learning Health Systems Diagnostic Errors, misses, timely Accurate

Adaptation of Expanded NAM Depiction of Dx Process, Expanded model of diagnosis/diagnosis education (TBD; consider building on Judith's original figure from her NEJM reasoning paper below vs. creating a new figure to demonstrate how we can integrate equity into reasoning concepts) Added trustworthiness (ref) Contextualization of care (wiener to the model as well, pt Asetts

Implicit Bias:
Type 1 and Type 2 Thinking

- Type 1 (Fast, Intuitive, Unconscious)
  - Influences rapid decisions, potential for bias.
- Type 2 (Slow, Analytical, Conscious)
  - Allows reflection, bias mitigation.
- Balancing both improves clinical decision-making and diagnostic equity.

📌 ***Faculty Role:***
Train learners to recognize when to slow down and engage Type 2 Thinking

DALL·E. A split-image illustration representing Type 1 and Type 2 thinking OpenAI; 2025. Available from: generated using OpenAI's DALL·E tool

Teaching Learners to Slow Down and Expand the Differential

- Explicitly Teach Bias Recognition – Use case-based learning.
- Train Learners in Structured Diagnostic Thinking – e.g. checklists.

- Encourage Reflection:
    - *If I feel confident too soon, list three more differentials.*
    - *Would my diagnosis change if this patient were a different race, gender, or background?*

Faculty should teach learners to:

1. Consider alternative diagnoses (e.g., heart failure, PE).
2. Use decision-support tools instead of assumptions.
3. Engage Type 2 Thinking and slow down.

Example Strategy: *Pause & Reflect Questions*

An Example:
Premature Closure – A Key Contributor to Diagnostic Inequities

- Definition: Accepting a diagnosis too early without full consideration of alternatives.
- Why it Happens:
  - Cognitive ease – The diagnosis 'feels' right.
  - Confirmation bias – Ignoring conflicting data.
  - Stereotypes – Making assumptions about certain patient groups.

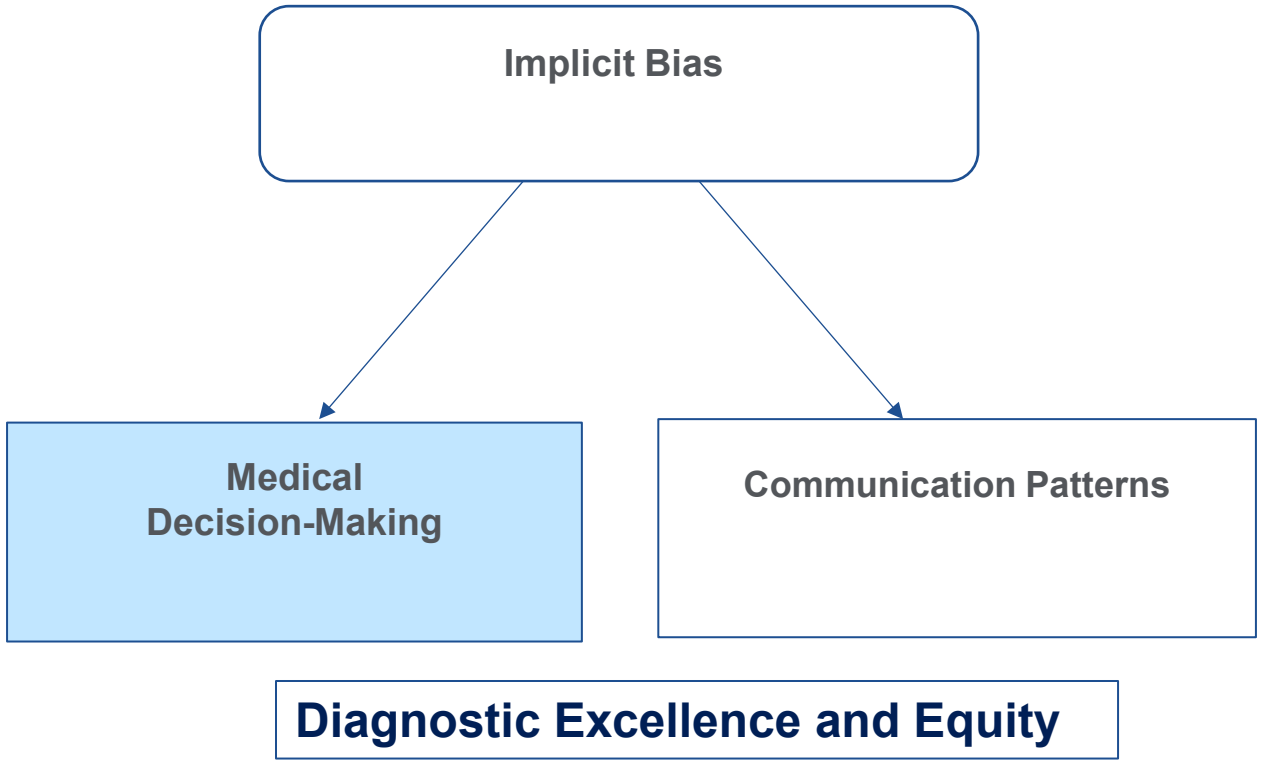
Example: A Hispanic woman with fatigue, cold intolerance and weight loss is diagnosed with anxiety instead of being tested for thyroid dysfunction.

Faculty Teaching Strategy:

Ask learners: - Why was ethnicity mentioned in the ID statement, should it have been? Did adding the gender limit our abilities to diagnosis?

What else could this be? Are we missing something?*

Implicit Bias Contributes to Health Disparities

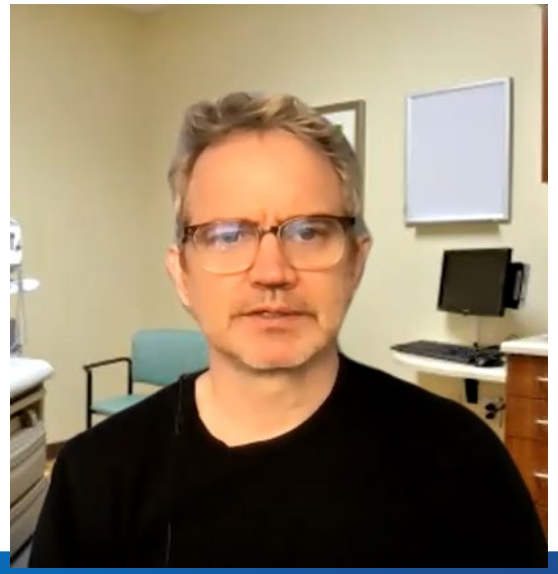


Zestcott et al. Group Processes & Intergroup Relations 19(4) (2016) 528-542.

Mr. Richard Grant:
52yo M p/w N/V and epigastric pain

Same Patient/characteristics

Different Race



Standardized patients playing Mr. Richard Grant

Query: **Implicit Bias**
Showing **1** of **1** new projects:

Project Number	Subproject	Project Title	Contact PI / Project Leader
1K23MD014178-01		DOES IMPLICIT BIAS INFLUENCE MEDICAL DECISION-MAKING? DEVELOPING AND VALIDATING NOVEL MODELS AND OUTCOME METRICS	GONZALEZ, CRISTINA M

View results in MyRePORTER

Gonzalez CM, et al. It Can Be Done! A Skills-Based Elective in Implicit Bias Recognition and Management for Preclinical Medical Students. Acad Med 2020;95:S150-S5.
Sukhera J, Watling CJ, Gonzalez CM. Implicit Bias in Health Professions: From Recognition to Transformation. Acad Med 2020;95:717-23.

Education / Assessment / Feedback: Communication Skills

- What verbal and nonverbal cues did you notice in this *patient*?
- Identify verbal and nonverbal *physician* communication that can be perceived as bias by the patient
- Why might poor communication skills have a disproportionately bad impact on the diagnostic process for racially minoritized patients?

Patient Cues

- What type of patient cues do physicians often miss?
- What are the potential consequences to the patient's perception of the physician's communication abilities based on missed cues?

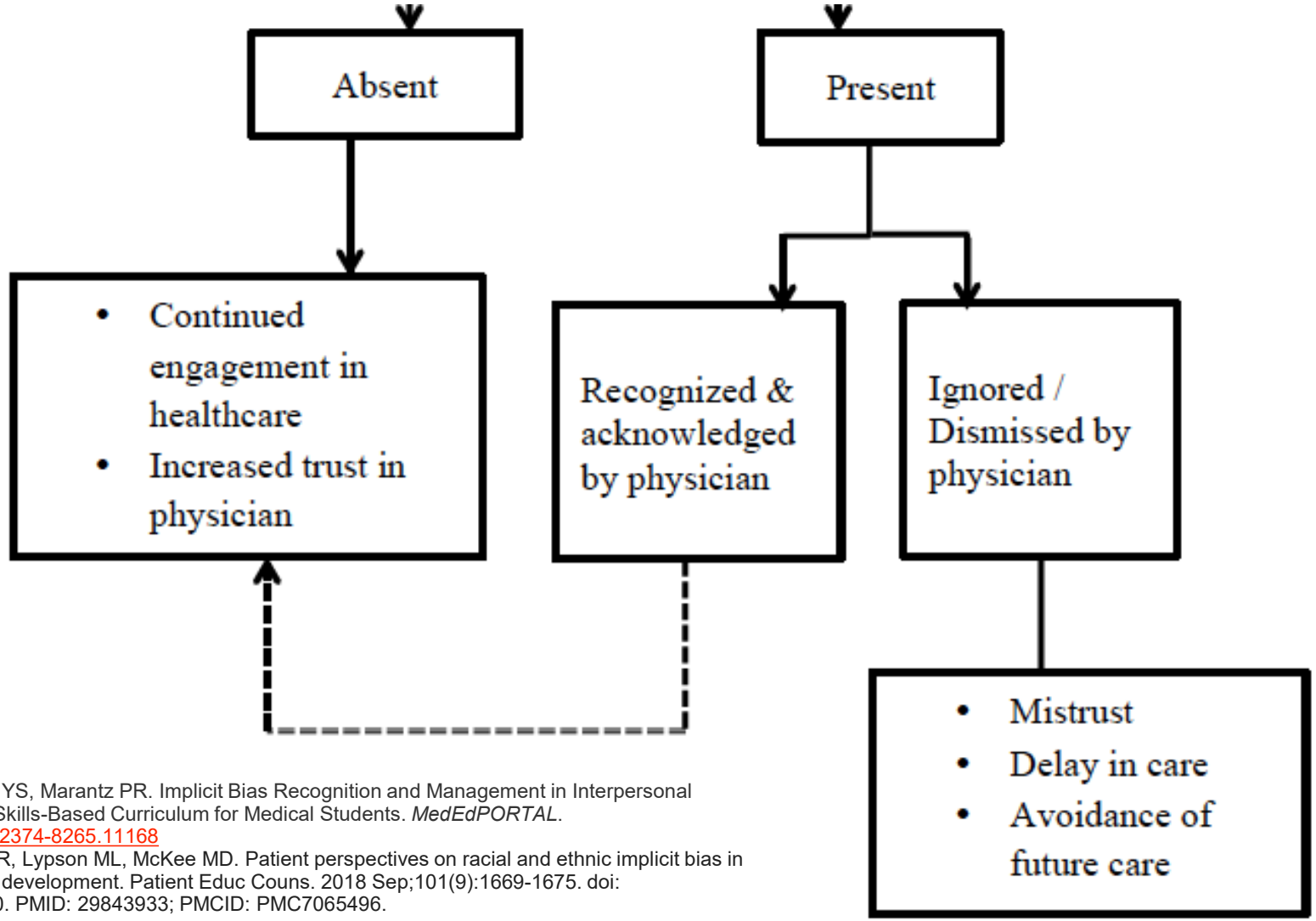
Advice …?

- How can physicians restore rapport?
- What to do during an interruption?

https://www.contextualizingcare.org/wp-content/uploads/2016/03/Contextual-Domains-chart-bookmark.pdf

Weiner SJ, Schwartz A. *Listening for What Matters: Avoiding Contextual Errors in Health Care*. 2nd ed. Oxford University Press; 2023.

Restoring Rapport to Optimize Problem Representation

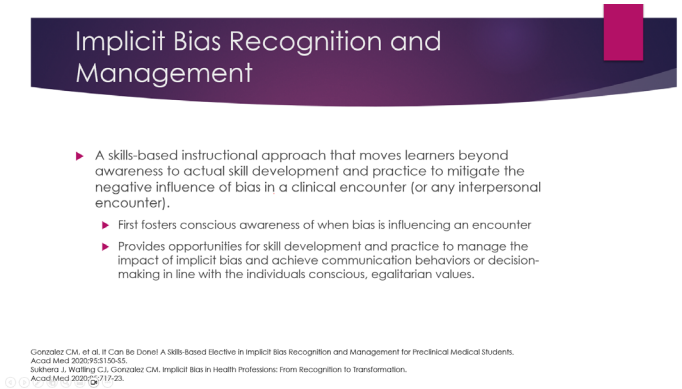


Gonzalez CM, Walker SA, Rodriguez N, Noah YS, Marantz PR. Implicit Bias Recognition and Management in Interpersonal Encounters and the Learning Environment: A Skills-Based Curriculum for Medical Students. *MedEdPORTAL*. 2021;17:11168. https://doi.org/10.15766/mep_2374-8265.11168
Gonzalez CM, Deno ML, Kintzer E, Marantz PR, Lypson ML, McKee MD. Patient perspectives on racial and ethnic implicit bias in clinical encounters: Implications for curriculum development. Patient Educ Couns. 2018 Sep;101(9):1669-1675. doi: 10.1016/j.pec.2018.05.016. Epub 2018 May 20. PMID: 29843933; PMCID: PMC7065496.

The 12 Tips for Teaching Faculty About Bias in Diagnosis

How Faculty Should Be Trained Before Teaching Learners:

1. Create a Safe Learning Environment.
2. Flatten the Hierarchy – Encourage open dialogue.
3. Normalize Bias While Reducing Self-Blame.
4. Integrate the Science of Bias – Teach Type 1 vs. Type 2 Thinking.
5. Create Activities That Embrace Discomfort – Use case-based learning.
6. Encourage Critical Reflection – Question assumptions.
7. Explore Structural & Institutional Biases.
8. Use Perspective-Taking – Incorporate patient narratives.
9. Skill-Building Exercises – Practice bias mitigation strategies.
10. Reinforce Bias Recognition as Lifelong Learning.
11. Include Formative & Summative Assessments.
12. Secure Leadership Support – Advocate for system-wide change.



Faculty Action Item: Train "BEFORE" teaching learners about bias in diagnosis.

Gonzalez, C. M., Lypson, M. L., & Sukhera, J. (2021). Twelve tips for teaching implicit bias recognition and management. *Medical Teacher*, *43*(12), 1368–1373. https://doi.org/10.1080/0142159X.2021.1879378

Faculty Development Strategies to Address Bias in Diagnostic Thinking

Sustainabilty: Hardwiring these practices into the educational process as well as in the E.H.R, with checklist and AI protocols – REWARD Faculty

Consider Diagnostic Excellence in Promotion – Quality Safety Tracks / Clinical Care Tracks and Others

Strategy	Goal	Example Implementation
Cognitive Forcing Strategies	Recognize context where Type 2 thinking is needed	Use **"If-Then" or "alternative scenario" rules** to counteract bias
Bias Checklists	Promote structured equity in diagnosis	Faculty review cases using an equity **checklist**
Implicit Bias Training	Increase faculty skills in addressing of how bias affects Type 1 thinking	Use the IAT, **simulation and role-playing** exercises
Case-Based Learning	Teach deliberate, slow reasoning in diverse cases	Use **structured reflection questions**
Simulation Training	Provide experiential learning in debiasing	**AI-driven** patient cases with bias feedback
Institutional Policy Changes	Align faculty teaching with equity goals	Update **EHR protocols & faculty promotion criteria**

What You Can Do Tomorrow on the Wards / in Clinic

- **Prompt Learners to Slow Down**
  - Ask: *What else could this be? Are we missing something?*
  - Use **'If-Then' Cognitive Forcing Strategies** (e.g., *If I feel confident too soon, I must list 3 more differentials.*)

- **Challenge Assumptions in Case Discussions**
  - Ask: *Would our differential change if this patient had a different background?*
  - Encourage structured reasoning instead of gut instinct

- **Model Bias-Aware Diagnostic Thinking**
  - Share examples of "how bias influences diagnosis"
  - Discuss Type 1 vs. Type 2 Thinking in real-time

- **Use the 12 Tips for Teaching Bias in Diagnosis**
  - Foster Safe learning environments for discussing diagnostic errors
  - Normalize bias as a cognitive process, not a character flaw

📌 ****Final Thought:****

Small changes in how we teach diagnostic reasoning can create a lasting impact on patient care equity!

Summary & Call to Action

Key Takeaways for Faculty Development:

✅ Bias impacts diagnosis – faculty must be trained before teaching learners.

✅ Type 1 Thinking can lead to diagnostic shortcuts and premature closure.

✅ Type 2 Thinking and the 12 Tips help mitigate bias.

✅ Faculty should promote structured reasoning and reflective practice.

📌 **Next Steps:**

- Develop faculty workshops on addressing implicit bias in diagnostic reasoning.
- Implement real-time feedback on bias addressing skills during clinical teaching.
- Advocate for institutional change to promote diagnostic equity.