

Addressing Structural Inequality in Medical Education: Guidelines for Virtual Patient Case Curricula

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Disclosures

Katherine Chretien, MD is a student engagement lead for Aquifer and receives an annual honorarium for this work.

Stephen Scott, MD, MPH is an academic director for engagement for Aquifer and receives an annual honorarium for this work.

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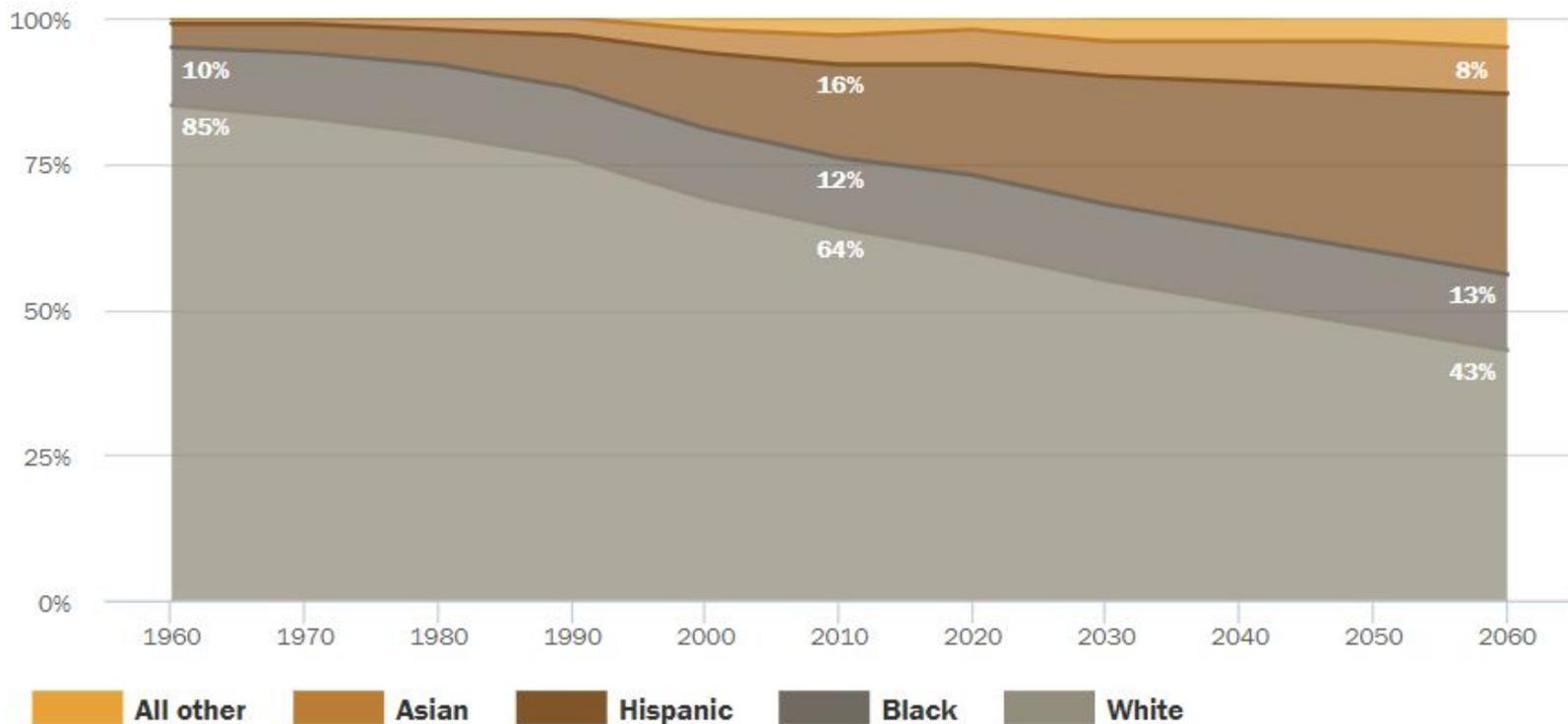
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Some Challenges

- **Bias and discrimination** in healthcare affects **health access and quality of care** for minority groups, contributing to **racial health disparities**.
- Despite efforts to **incorporate race and culture** as part of medical education curriculum, teaching and modeling may be limited and may not reflect best practices.
- Re-evaluation of curriculum materials from the **lens of race and culture** is a time-consuming and complex endeavor

Changing Face of America

Percent of total U.S. population by race and ethnicity, 1960-2060



Purpose and aims

- **Student feedback** on virtual patient cases indicated problems with presentation of racial and cultural issues (out of date, reinforcement of stereotypes)
- To engage medical students in developing an **evidence-based checklist** to evaluate clinical teaching cases to **improve teaching of race and culture** topics in medical school curricula.

AQUIFER INTERNAL MEDICINE

A case-based virtual course

Formerly SIMPLE



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Case screen gallery



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PHYSICAL EXAM



Dr. Wilson demonstrates how to examine the thyroid.

You and Dr. Wilson perform a physical exam.

Physical Exam

Vital signs:

- **Temperature:** 98.6° Fahrenheit
- **Heart rate:** 92 beats/minute
- **Respiratory rate:** 16 breaths/minute
- **Body Mass Index:** 23 kg/m²
- **Blood pressure:** 130/88 mmHg
- **Weight:** 135 pounds

General: Ms. Yang is alert and sitting up comfortably, but still appears anxious and is

Integument: Palms are slightly sweaty. There is no hair loss.

Diagnoses

Dysrhythmia  

Anemia  

Anxiety  

Coronary Artery Disease  

 New Diagnosis...


DIAGNOSES


FINDINGS


NOTES


BOOKMARKS

Approach

Spring 2017

- Assemble student team
- Literature review and development of analytical framework

Summer 2017

- Case review
- Analysis of themes

Fall 2017

- Preliminary recommendations
- Stakeholder checking and revision

Winter 2017

- Creation of six-step guide

Spring 2018

- Dissemination (Annual meeting, Academic Medicine)

Themes

1. Racial and ethnic disparities were attributed to genetics or biology rather than the social and structural determinants of health (SSDOH)
2. Providers attributed etiologies of disease and blame to individual patient behaviors and characteristics without any context of SSDOH
3. Cases depicted frequent reductionist and essentialist portrayals of non-Western cultures and people of color
4. Treatment plans did not address patients' SSDOH
5. Cases lacked critical reflection on health disparities and implicit bias in medicine
6. Cases lacked diversity of patient, student, and healthcare provider identities and roles

Structural Competency



The Six-Step Guide

- A tool to evaluate course content in order to **improve the portrayal of race and culture** in virtual patient cases.
- Provides **teaching, rationale, supporting evidence**
 1. Racial Health Disparities and Social and Structural Determinants of Health (SSDOH)
 2. SSDOH and Patient Behaviors
 3. Racial and Cultural Stereotypes
 4. Treatment Plan and SSDOH
 5. Reflection of Race and Culture
 6. Reflection of National Sociodemographic Factors in the Health Team

Race and Culture Guide for Teaching Cases

Key Concepts

Structural competency	"The ability for health professionals to recognize and respond with self-reflexive humility and community engagement to the ways negative health outcomes and lifestyle practices are shaped by larger socioeconomic, cultural, political, and economic forces" (1).
Social and structural determinants of health (SSDOH)	<p>The hierarchical institutions, economic systems, policies, cultural norms, and infrastructural organization of our social world that directly/indirectly worsen health outcomes for some groups of people more than others. "A society's social structure generates its specific patterns of SSDOH" (1).</p> <p>Examples:</p> <ul style="list-style-type: none"> - Socioeconomic status and income inequality - Neighborhood segregation leading to poor access to grocery stores - War-torn childhood/ lack of resources in home country leading to undocumented immigrant status in the U.S. - Institutional policies (e.g. public versus private health care, incarceration rates, etc.) - Military disruptions or political embargoes
Structural vulnerability	"An individual's or a population group's condition of being at risk for negative health outcomes through their interface with socioeconomic, political, and cultural/normative hierarchies. Patients are structurally vulnerable when their location in their society's multiple overlapping and mutually reinforcing power hierarchies (e.g., socioeconomic, racial, cultural) and institutional and policy-level statuses (e.g., immigration status, labor force participation) constrain their ability to access health care and pursue healthy lifestyles" (1).
Race, ethnicity, culture and minority identity (<i>referred to as "race/culture" in the checklist</i>)	Race has traditionally been defined as a "construct of human variability based on perceived differences in biology, physical appearance, and behavior" (2). However, this conception of race rests on the false premise that natural distinctions grounded in

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Section 2. Providers should look to SSDOH to understand patient behaviors, rather than attributing patient behavior to patient's race/culture.

Does your case include:

- A patient of color and/or minority culture?
 - A patient of low socioeconomic status?
 - A patient who exhibits behaviors, such as non-compliance to treatment plans, missing health appointments, poor diet, lack of exercise, smoking, alcohol or other substance use, or sexual risk behaviors?
 - Discussion or counseling regarding patient health behavior?
-

Suggested Case Edits:

- Within provider-patient discussions, have the provider and/or medical student explore the upstream factors affecting the patient's behaviors, including but not limited to non-compliance to treatment plans, missing health appointments, poor diet, lack of exercise, smoking, alcohol or other substance use, or sexual risk behaviors, at least once.
 - Provider goes beyond individual patient behaviors and probes on SSDOH at least once while taking history
 - Good example: If patient is noncompliant, provider probes the root cause(s) by asking "why" at least five times (Leveson NG. Applying systems thinking to analyze and learn from events. *Saf Sci* 2011;49:55–64).
 - Provider encourages student to ask at least one social context question while taking history.
 - Good example:
 - Patient: "I can't come to a hospital follow-up appointment"
 - Provider: "What is getting in your way of coming to an appointment?"
 - Patient: "I don't have any way to get there and it's 3 miles away"
 - Provider: "Why don't you have any way to get there?"
 - Patient: "My husband used to drive me but he isn't here anymore."
 - Provider: "Why isn't he around?"
 - Patient: "He just got deported again. We're undocumented"

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[] Exercise caution and restraint when offering instructions on how to approach patients based solely on their racial/cultural identity:

Ask patients about their beliefs, instead of assuming that because they are Latino, they believe in *fatalismo* (fatalism), for instance. A Latino patient may still report a belief in *fatalismo*, but the physician must model how to inquire about each patient's belief system, regardless of patient's race/culture.

If instructions are offered, provide evidence that this assumption-based approach improves patient care/outcomes.

Good example: A patient self-identifies as a queer female teenager, so the physician asks for the patient's preferred gender pronouns. Then, evidence is provided that asking this question improves care for LGBTQ teens.

All patients, rather than exclusively minority patients, should be asked about their belief systems when relevant.

[] Remove and replace language in which the “health behavior” is used as an adjective to describe the patient:

- Good example: “homeless man” is replaced by “man experiencing homelessness”
- Good example: “drug addict” or “substance abuse” is replaced with “woman with substance use disorder”

[] Provide the evidence: Literature is cited showing that upstream context questions are helpful in managing care for both minority and non-minority patients.

- Good example: Author includes discussion and literature supporting the role of upstream context (*not race/culture*) in shaping patient’s dietary behaviors

Rationale and Evidence for Case Edits:

- Health behaviors do not define individuals; racial identity does not predispose individuals to certain behaviors, social circumstances do.
- Attributing illness to patient behavior without acknowledging social context prevents students from understanding the root causes of health disparities and perpetuates racial and cultural biases.
- Students understand that health behaviors are often modifiable and social context-driven; students feel empowered to ask about SSDOH and to work to address patients’ poor health behaviors in a structurally competent manner.^{1,2}
- Medical education using patient cases should teach humility by not placing blame for illness onto individual patients and their behaviors, but instead on to their circumstances/ upstream social context of their lives.
- Health care providers must model empathy and how to address patients’ poor health behaviors in a structurally competent manner.¹

1. Rogers B. With Understanding Comes Empowerment. The New Physician. Published April 2014. Accessed February 8, 2018.

<http://www.onlinedigeditions.com/article/With+Understanding+Comes+Empowerment/1696112/206876/article.html>

2. Metz J, Hansen H. Structural competency: Theorizing a new medical engagement with stigma and inequality. Social Science & Medicine. 2014 Feb 28; 103:126-33.

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Lessons Learned

- Students are passionate about this topic - and sign up!
- Logistical challenges, team communication
- Attitudes and evidence are evolving
- Educators are curious and invested and welcome help

Limitations

- Generalizability
- Pilot innovation with limited outcomes
- Diversity of final workgroup

Next Steps

- New student workgroup **applying guide** to Aquifer cases
- Apply guide to other types of case-based learning as well as vignettes used in assessment to critically examine **SSDOH and racial/cultural bias**
- **Workshops** for medical educators
- **LGBTQ health**

Thank You!

Any questions?