

Beyond Social Determinants of Health: Examining a Structural Competency Training for First Year Medical Students

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Background

Public health and biomedical literature has elucidated the impact of social determinants on health (SDoH). Medical education has moved towards educating students on SDoH and culturally competency. Cultural competency teaches healthcare professionals to recognize the cultural, social, and linguistic needs of patients, and their impact on care. However, cultural competency trainings do not adequately address *how* broader structural factors and systems produce health inequities associated with race and other identities. There is need for medical education to train future health professionals to understand how health disparities result from social and economic infrastructures shaped by history, hierarchies, politics, and systemic racism. **By including structural competency trainings in medical education, health professionals will be better equipped to both recognize and address these structural barriers and positively impact health outcomes.**

Definitions

Structural Competency

The capacity for health professionals to recognize and respond to health and illness as the downstream results of broad social, political and economic structures.¹ Components include:

1. Recognizing influences of structures on patient health.
2. Recognizing influences of structures on the clinical encounter, including implicit frameworks common in healthcare.
3. Responding to structures in the clinic.
4. Responding to structures beyond the clinic.
5. Developing structural humility (e.g., through collaborations with communities).

Objectives

1. To evaluate the demand for training in structural competency amongst medical students and healthcare professionals.
2. To evaluate the beliefs, knowledge, and attitudes on caring for underserved populations*, including confronting structural barriers to healthcare access and quality in a cohort of first year medical students after taking a novel structural competency training.

**communities of Color, undocumented, LGBTQIA, etc.*

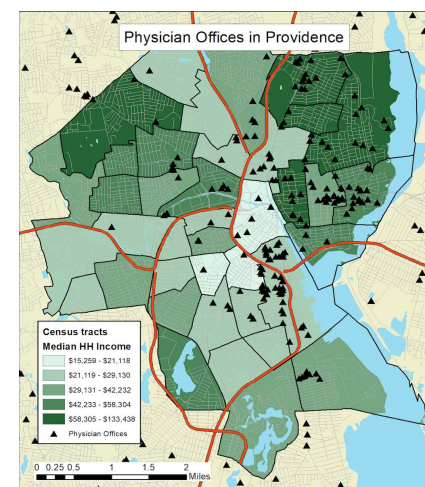
Methods

- A structural competency curriculum was developed using resources from the Swearer Center at Brown University, Southern Jamaica Plain Health Center, and the National Center for Health Statistics (NCHS).²
- An introductory presentation, entitled “Looking Upstream: Addressing Social Determinants as Members of the Medical Community,” was given to a cohort of 146 first year medical students at the Warren Alpert Medical School of Brown University during their orientation week. A **pre-training survey** was administered before the presentation using the Qualtrics software.
- Following the presentation, students participated in Community Health Connections (CHC) site visits.
- Small group debrief sessions (10 students per group) were held the following week. Groups were facilitated by 1-2 trained second or third year students (24 students in total). After the small group session, students completed a **post-training survey** using the Qualtrics software.

Curriculum Overview

One-hour presentation: “Looking Upstream: Addressing Social Determinants as Members of the Medical Community” included the following:

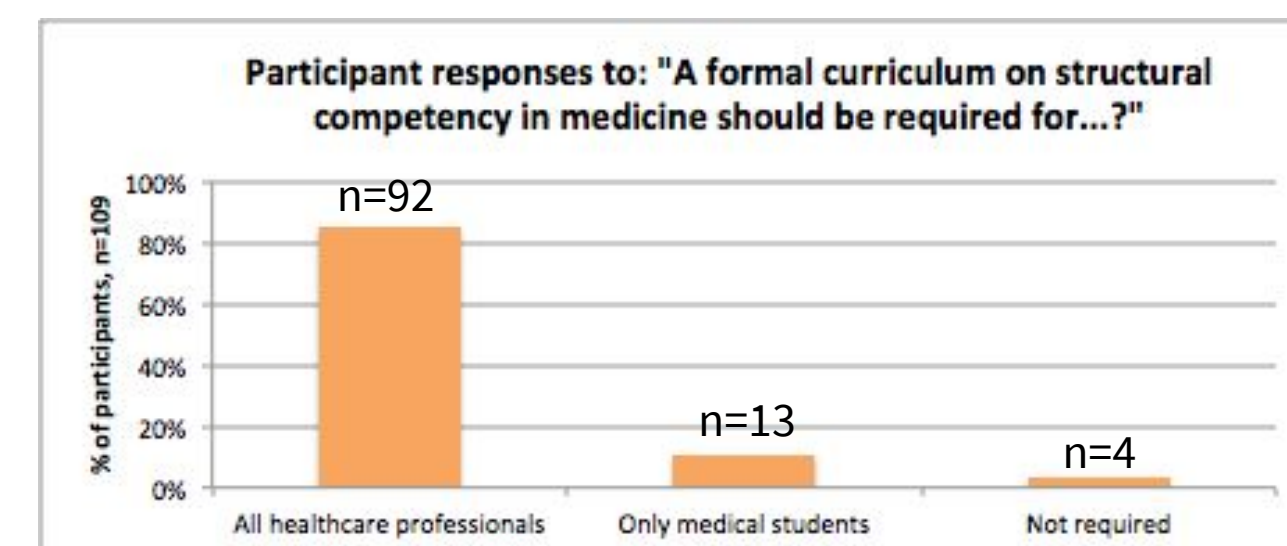
- Definitions of structural competency and structural humility
- A case study
- Maps of Providence visualizing data on SDoH, such as:
 - Transportation routes
 - Median family income
 - Race/ethnicity
 - Hospital and health center locations
- Maps of Providence health outcomes data
- Rules of community engagement



Community Health Connection (CHC): Site visits to community organizations that provide medical and/or social services to the Providence area.

Small group debrief: Trained second and third year medical students facilitated small groups of 10 first year medical students in a structured discussion. Groups engaged in various activities designed to foster conversations on structural humility and its applicability to medical training and care.

Student Responses



Qualitative responses were grouped by themes:

Importance to medical education

- “I think it is **incredibly important for all students** to have these two sessions. I do hope that the administrations **keeps the sessions mandatory** for all students.”
- “There is no foreseeable downside to incorporating this into the educational curricula for all healthcare professionals.”

Patient-centered care

- “Social determinants of health...**affect every health professional’s ability to provide high-quality care** to patients, whether they are aware of these structural factors or not.”
- “If you serve a population, you should be required to understand other services offered in the population.”

Ability to address systemic change

- “**Understanding how inequities evolved is key** to addressing these issues.”
- “Only in acknowledging such flaws [in our healthcare system] can we...[develop] healthcare policy that is more efficient and universal.”

Call for a tailored structural competency training

- Focus should be on learning “potential referral resources and laws impacting patients and how to...**advocate for a patient**.”
- “Physicians might be more willing to participate in structural competency trainings if there was greater focus on how to ‘treat’ these social issues.”

Survey Results

Pre- and post-training, **111 participants** responded to the following statements with strongly agree, agree, neither agree nor disagree, disagree or strongly disagree. Interval changes were tested on an agreement scale.



Belief

“Improving my ability to care for underserved patient populations improves my ability to care for all patients.”*

There is a **significant difference** in participants with prior training (*p-value* < 0.05) but **no significant difference** in **all** participants (*p-value* = 0.72). **77%** of participants answered “strongly agree” **pre**-training, which increased to **78%** of participants **post**-training.



Knowledge

“I am familiar with:

- *terminology describing structural barriers in health and medicine*
- *with health disparities affecting patients from underserved populations*”*

There is a **significant difference** in familiarity for all participants (*p-value* < 0.001), as well as participants with prior training (*p-value* < 0.001). For familiarity with health disparities, **24%** of participants answered “strongly agree” **pre**-training, which increased to **54%** of participants **post**-training.



Attitude on discussing

“I feel comfortable discussing with a colleague, supervisor / superior or hospital administrators on ways to improve care for patients from underserved populations”*

There is a **significant difference** in level of comfort with discussion for all participants (*p-value* < 0.001; 95% CI, 0.83-1.64), as well as participants with prior training (*p-value* < 0.001; 95% CI, 0.21-1.65). For discussion with a supervisor, **16%** of participants answered “strongly agree” **pre**-training, which increased to **30%** of participants **post**-training.



Attitude on acting

“I feel comfortable:

- *directing patients from underserved populations* to relevant community resources*
- *in my ability to create a safe, comfortable, and trusting environment with patients from underserved populations**
- *accessing resources (either online or in-person) to better my ability to care for patients from underserved populations**
- *developing a plan of action to confront barriers that impact patients and their health”*

There is a **significant difference** in level of comfort with taking action for all participants (*p-value* < 0.001; 95% CI, 1.54-2.47), as well as participants with prior training (*p-value* < 0.001; 95% CI, 1.06-2.69). For discussion with a supervisor, **16%** of participants answered “strongly agree” **pre**-training, which increased to **30%** of participants **post**-training.

Conclusions

- Most participants indicated that **all health professionals need training in structural competency** (n=93; 85%).
- Most participants highlighted the importance of learning how inequities develop and feel that there is a need to learn how to address these in order to best care for patients.
- After the training, all participants indicated:
 - Improved knowledge in the terminology describing structural barriers to health care
 - Increased comfort with discussing ways to improve care for underserved populations
 - Increased comfort with taking action to address barriers impacting patients’ health.
- **Even participants with prior training in public health through undergraduate or postgraduate education rated an improvement in their ability to discuss and address systemic barriers to health care.**

Future Directions

- Incorporate more concrete ways to address structural barriers to care, including expanding the scope of discussion on the concept of “structural humility,” into future iterations of the trainings.
- Extend the training’s availability to medical students entering the clinical years, residents entering their internship year and other health professionals.

References

1. 2016. Developed by the Berkeley Rad Med Critical Social Medicine Collective Structural Competency Working Group.
2. NCHS, National Vital Statistics System. Available from: <http://wonder.cdc.gov/>.

Acknowledgments

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