Addressing Health Disparities in Medical Education
A.T. Still University
School of Osteopathic Medicine in Arizona
Objectives

1. Summarize best practices for incorporating the longitudinal teaching of health disparities into an osteopathic medical school curriculum.

2. Develop evaluation plans to study the influence of this curriculum on faculty and student knowledge, attitudes and beliefs toward health disparities and in particular towards people experiencing homelessness.

3. Describe the AACOM grant-funded study evaluating student and faculty attitudes toward people experiencing homelessness using the Health Professional’s Attitude Towards the Homeless Inventory (HPATHI).

4. Generate a plan for incorporating the longitudinal teaching of health disparities at workshop attendee’s home institution.
Our mission

At ATSU-SOMA, our mission is to prepare community- and research-minded osteopathic physicians who serve the unmet healthcare needs of society through innovative, learner-centered undergraduate and graduate medical education programs.

Selection of students, faculty, and staff, as well as our curriculum, are geared toward our mission of service to the underserved.
Our “unique” curriculum

Beginning in Year 2, the students begin rotating with preceptors in one of 12 community health center campuses around the nation.

While didactic instruction continues, patient interaction, professionalism, ethics, preventive medicine, and communication skills are emphasized in years 2-4.
Addressing Health Disparities in Medical Education

OMS 1
- Working with standardized patients, poverty simulation, resource familiarity, didactic presentations focusing on awareness

OMS 2
- Group project partnered with community health centers, didactic presentations focusing on timely and pertinent issues in the community

OMS 3 and 4
- Rotation experiences, Circle the City Medical Center
Introduction to SDH

OMS-I
Social Determinants of Health

The social determinants of health are the conditions (the physical environment) in which people are born, develop, learn, work, age, receive health care, and are represented politically.

- These circumstances are shaped by the distribution of money, power and resources at local, national, and global levels.
- The social determinants of health largely determine health inequities - the unfair and avoidable differences in health status seen within and between different cultures.
Questions for Patients:

- Have you been without a home at any time in the past year?
- Has there been a time in the past 6 months when someone in your home skipped at least one meal because there wasn’t enough money to buy food?
- Who prepares meals in your home?
- Can you safely walk in your neighborhood?
- How do you get your medications (ex: online, neighborhood pharmacy, samples) and who gets them for you?
A 44 year-old man presents for fatigue. During history taking, the patient states that he gets his food from the Circle K near his apartment since there is not a supermarket near his home. He tells you “I eat well.” He says he has been looking for a job for months and survives on a disability check he gets monthly after being hurt on the job at a construction site. Of the following questions, which is most appropriate to ask?

A) “Are you having any luck finding a job?”
B) “Do you feel safe in your neighborhood?”
C) “Can you tell me the types of food you are eating?”
D) “If I give you a prescription today, will you be able to get it filled?”
E) “What type of injury did you have at your construction site?”
Poverty Simulation
Participating in the Poverty Simulation was beneficial to my education.

- Strongly Agree: 68.35 (n = 54)
- Somewhat Agree: 27.85 (n = 22)
- Somewhat Disagree: 3.8 (n = 3)
- Strongly Disagree: 0

% of Students (N = 79)
Participating in the Poverty Simulation has increased my awareness of the challenges faced by low income individuals and families

- Strongly Agree: 65.82% (n = 52)
- Somewhat Agree: 27.85% (n = 22)
- Somewhat Disagree: 3.80% (n = 3)
- Strongly Disagree: 2.53% (n = 2)
Participating in the Poverty Simulation has further motivated me to develop skills and broaden my knowledge of available resources to assist my future patients

- **Strongly Agree**: 74.68% (n = 59)
- **Somewhat Agree**: 24.05% (n = 19)
- **Somewhat Disagree**: 1.27% (n = 1)
- **Strongly Disagree**: 0%
How are you teaching about the social determinants of health and health disparities at your institution?
Community Health Research

OMS-II
Student-Led Community Oriented Primary Care (COPC) Projects

One way we can **give back** to our community health center (CHC) campuses.

Must be related to **CHC priorities**.

Important to our shared mission with the **National Association of Community Health Centers (NACHC)**.
Community Oriented Primary Care (COPC) is a community-based approach to primary care that focuses on the needs and preferences of the community it serves. It integrates public health and primary care services to improve health outcomes and address social determinants of health.
4 COPC Steps

1. Define the community of interest

2. Identify the health problem

3. Develop and implement interventions

4. Conduct ongoing evaluation (of process and outcome)
Types of Projects

- Best Practice or Innovations
- Community Service
- Quality Improvement
Mini-Doc Program: Waianae, HI
Community Impact

Dear Big Docs,
Thank you for teaching me things about my body and I am learning about the lungs it was cool. I hope you are getting this and I hope everyone have a good day.

Dear Doctors,
Thank you for coming to Kamale Academy and teaching our 3rd grade class. My favorite activity was asthma and that thing that can infect asthma like dust.

What is a Mini Doc? A Mini Doc is a young student that is learning how to be a health expert. Don’t let their size fool you! They care about their families, friends and their community. They want to see everyone living a happy and healthy life. We hope you will let them be their “first patients” and let them leave a healthy impact!

What did I learn from my Mini Doc?
I learned to control my anger, to not have a heart attack.

How do you know student:
He is my friend

Student Name:

Don’t forget to bring this form back to school!!
COPC Toolkit

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HOW TO PREPARE FOR YOUR PROJECT

The community project will follow the elements of COPC. As a team, you will identify a need, develop or expand an intervention and plan methods for evaluating the process and the outcomes.

Each project must follow these steps. Please visit the COPC website for more information.

1. Identify a need
2. Develop an intervention
3. Plan methods for evaluation

To identify a need, you will need to conduct a needs assessment. The needs assessment should be conducted before selecting a project.

You will need to conduct a needs assessment. The needs assessment should be conducted before selecting a project.

To develop an intervention, you will need to select a project. The project should be selected after conducting a needs assessment.

You will need to develop an intervention. The intervention should be selected after selecting a project.

To plan methods for evaluation, you will need to select a project. The project should be selected after selecting a project.

You will need to plan methods for evaluation. The methods for evaluation should be selected after selecting a project.
Why is this important?

Improve the health of the community

Impact patients in the room and people who do not seek care

Chance to engage positively with the community

Opportunity to engage practicing providers, faculty, students and residents in scholarly work aligned with their passions and ideals
The New Physician

will be able to...

• work with inter-professional teams
• use technology and data
• communicate effectively
• focus on patient-centered, preventive, primary care
• work with community members & institutions
• integrate primary care and public health
• adapt, show resilience

AMSA, Sept 2016
AMA Accelerating Change in Medical Education Consortium

- ATSU SOMA was selected to join the consortium in 2016.
- We developed a COPC toolkit to help other schools teach students to conduct/evaluate projects.
- To request a toolkit:
What types of **community projects** are the students involved in at your institution?
Rotation Experiences

OMS-III AND OMS-IV
Circle the City Medical Respite Center

Overview

- 50 bed, free-standing medical respite center in Central Phoenix, AZ
- Staffed 24/7 by nurses (RN’s/LPN’s), respite assistants, and security
- Providers on-site 7 days/wk.
Homelessness and Health

Health Problems Cause Homelessness
- Medical conditions cause 62% of all personal bankruptcies in the United States

Homelessness Causes Health Problems
- Exposure to the elements, to violence, to communicable disease, to parasites
- Attenuation, malnutrition
- Circulatory complications
- Self-medication
Health Disparities

Rates of illness and injury 3-6 times higher among homeless than housed persons.

Life expectancy:
- US Population: 77 years
- Homeless in Boston: 47 years
- Homeless in Atlanta: 44 years
- Homeless in San Francisco: 41 years
- Homeless in Phoenix: 49 years


Medical Student Rotation Experience

What will the reader learn from this case report?

What is the social impact on healthcare for people experiencing homelessness?

Include the relevance to Osteopathic Medicine and Treatment.

How does this affect your perception on people experiencing homelessness?
Attitudes Toward People Experiencing Homelessness

Unfortunately, research suggests medical student attitudes towards people experiencing homelessness change negatively as they progress to graduation.¹

Negative attitudes toward the homeless population appear to progress and are more prominent among teachers than learners.²

This highlights the potential problem of physician/mentor attitudes affecting student development and demonstrates the importance of addressing this concern.
<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<tbody>
<tr>
<td>1. Homeless people are victims of circumstance.</td>
<td></td>
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<tr>
<td>2. Homeless people have the right to basic health care.</td>
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<tr>
<td>3. Homelessness is a major problem in our society.</td>
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<td>4. Homeless people choose to be homeless.</td>
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<td>5. Homeless people are lazy.</td>
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<tr>
<td>7. I am comfortable being a primary care provider for a homeless person with a major mental illness.</td>
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<tr>
<td>10. I feel overwhelmed by the complexity of the problems that homeless people have.</td>
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<tr>
<td>11. I understand that my patients’ priorities may be more important than following my medical recommendations.</td>
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<td>12. Doctors should address the physical and social problems of the homeless.</td>
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<td>13. I entered medicine because I want to help those in need.</td>
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<tr>
<td>14. I am interested in working with the underserved.</td>
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<tr>
<td>15. I enjoy addressing psychosocial issues with patients.</td>
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<tr>
<td>16. I resent the amount of time it takes to see homeless patients.</td>
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<tr>
<td>17. I enjoy learning about the lives of my homeless patients.</td>
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<tr>
<td>18. I believe social justice is an important part of health care.</td>
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<tr>
<td>19. I believe caring for the homeless is not financially viable for my career.</td>
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</tbody>
</table>
Health Professional’s Attitude Towards the Homeless Inventory (HPATHI)

Given to all students, faculty (including preceptors), and staff

Early results are promising that student attitudes are not becoming more negative and in some cases more positive. Faculty and preceptors seem to mirror student attitudes.
11.) I understand that my patients' priorities may be more important to them than following my medical recommendations

Mesa-based Faculty
RDME
Preceptor

12.) Doctors should address the physical and social problems of the homeless

14.) I am interested in working with the underserved

Mesa-based Faculty
RDME
Preceptor

21.) I think mentally ill homeless people refuse to get treatment

23.) Most homeless people tend to be drug addicts or alcoholics

Mesa-based Faculty
RDME
Preceptor

24.) Caring for the homeless is pointless since they do not follow up

Mesa-based Faculty
RDME
Preceptor

Percent Agree

Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree
Statistically Significant Results of ANOVA Comparing Attitudes between OMS Classes

- **Homeless people choose to be homeless**
  - OMS-I
  - OMS-II
  - OMS-III
  - OMS-IV

- **Health-care dollars should be directed toward serving the poor and homeless**
  - OMS-I
  - OMS-II
  - OMS-III
  - OMS-IV

- **I am comfortable being a primary care provider for a homeless person with a major mental illness**
  - OMS-I
  - OMS-II
  - OMS-III
  - OMS-IV

- **Most homeless people are mentally ill**
  - OMS-I
  - OMS-II
  - OMS-III
  - OMS-IV

Legend:
- Strongly Disagree
- Disagree
- Neither Agree nor Disagree
- Agree
- Strongly Agree
### Attitudes of people experiencing homelessness

#### Summary Comparisons with Article by Morrison et al.

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<th>SD SOMA</th>
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<th>Mean PSYCH</th>
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<th>Psych vs SOMA P-value</th>
<th>N ER</th>
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<th>SD ER</th>
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<td>4.1190</td>
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<td>41</td>
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<td>42</td>
<td>4.2143</td>
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<td>4.2600</td>
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<td>3.7619</td>
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I've compared the mean response (1=SD to 5=SA) from SOMA clinical faculty (RDME, preceptor, and mesa-based faculty) to ER faculty and residents and to Psych faculty and residents based on the summary statistics in the Morrison et al. paper from a sample of one United States community-based medical school. The questions that showed a significant difference between SOMA and Psych faculty and residents are highlighted with green indicating that group of faculty and residents hold a more positive view on the homeless and red indicating a more negative view on the homeless.
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<td>1</td>
<td>Homeless people are victims of circumstances</td>
<td>0.9788</td>
<td>55.63%</td>
<td>55.81%</td>
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<td>Students 3-4</td>
<td>2</td>
<td><strong>Homeless people have the right to basic health care</strong></td>
<td>0.0031</td>
<td>99.30%</td>
<td>91.86%</td>
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<td>Students 3-4</td>
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<td>Homelessness is a major problem in our society</td>
<td>0.1017</td>
<td>85.92%</td>
<td>93.02%</td>
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<td>Students 3-4</td>
<td>4</td>
<td>Homeless people choose to be homeless</td>
<td>0.7818</td>
<td>4.23%</td>
<td>3.49%</td>
</tr>
<tr>
<td>Students 3-4</td>
<td>5</td>
<td>Homeless people are lazy</td>
<td>0.6065</td>
<td>4.93%</td>
<td>3.49%</td>
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<td>Students 3-4</td>
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<td>Health-care dollars should be directed toward serving the poor and homeless</td>
<td>0.8178</td>
<td>66.31%</td>
<td>69.77%</td>
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<td>Students 3-4</td>
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<td><strong>I am comfortable being a primary care provider for a homeless person with a major mental illness</strong></td>
<td>0.0124</td>
<td>54.23%</td>
<td>70.93%</td>
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<td>I feel comfortable being part of a team when providing care to the homeless</td>
<td>0.9150</td>
<td>92.25%</td>
<td>91.86%</td>
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<tr>
<td>Students 3-4</td>
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<td>I feel comfortable providing care to different minority and cultural groups</td>
<td>0.1943</td>
<td>92.25%</td>
<td>96.51%</td>
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<td>Students 3-4</td>
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<td><strong>I feel overwhelmed by the complexity of the problems that homeless people have</strong></td>
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<td>51.41%</td>
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<td>I understand that my patients' priorities may be more important to them than following my medical recommendations</td>
<td>0.2830</td>
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<td>89.53%</td>
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<td>76.06%</td>
<td>81.40%</td>
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<td>I entered medicine because I want to help those in need</td>
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<td>90.14%</td>
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<td><strong>I am interested in working with the underserved</strong></td>
<td>0.0039</td>
<td>66.20%</td>
<td>83.72%</td>
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<td>Students 3-4</td>
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<td>I enjoy addressing psychosocial issues with patients</td>
<td>0.1755</td>
<td>58.45%</td>
<td>67.44%</td>
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<td>Students 3-4</td>
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<td>I resent the amount of time it takes to see homeless patients</td>
<td>0.0871</td>
<td>7.75%</td>
<td>2.33%</td>
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<tr>
<td>Students 3-4</td>
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<td><strong>I enjoy learning about the lives of my homeless patients</strong></td>
<td>&lt;.0001</td>
<td>43.66%</td>
<td>72.09%</td>
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<td>Students 3-4</td>
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<td>I believe social justice is an important part of health care</td>
<td>0.5195</td>
<td>75.35%</td>
<td>79.07%</td>
</tr>
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</table>
Attitudes Toward People Experiencing Homelessness – Future plans

- Continue following the class of 2019 and 2020 until graduation to evaluate possible changes longitudinally
- Evaluate the affect of OMT/OMM with perception of homelessness
- Address needs
  - Further expansion of rotations serving people experiencing homelessness
  - Healthcare education for non-clinical faculty and staff
  - ??
At your table, generate a plan for incorporating the longitudinal teaching of health disparities at your institutions.
References


http://www.urban.org/policy-centers/cross-center-initiatives/low-income-working-families