Perceptions of Homelessness: Is there variation across medical careers and specialties?

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Background:

- There are more than 580,000 people experiencing homelessness (PEH) in America[1]
- People experiencing homelessness (PEH) face greater health inequities and are subject to shorter life expectancy,[2] higher morbidity,[3] and greater usage of acute hospital resources such as the emergency department.[4]
- Bias may exacerbate these medical and social needs and worsen health conditions
- Medical students, residents, and attendings can all hold biases, and given the hierarchical model of medical education, these biases may permeate the learning environment as students model behavior and adopt attitudes of teachers[5-7]
- Biases cannot be corrected without an awareness of existing bias as well as tailored intervention

Tool & Past Work:

Health Professionals' Attitudes Toward the Homeless Inventory (HPATHI) is a validated survey to quantify providers' attitudes towards PEH.[8] We know;

- Students and residents perceptions can change through their lived experience [9,10]
- Students, residents, and faculty in one emergency department all have varying attitudes towards PEH[11]

HPATHI Questions:

All questions answered with a 5 point Likert scale(1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; and 5 = strongly agree)

Table 1: Full HPATHI

1	SA	SA1	Homeless people are victims of circumstance.
2	SA	SA2	Homeless people have the right to basic health care.
3	SA	SA3	Homelessness is a major problem in our society.
4	C	C1	Homeless people choose to be homeless.
5	C	C2	Homeless people are lazy.
6	SA	SA4	Healthcare dollars should be directed toward serving the poor and homeless.
7	SA	SA5	I am comfortable being a primary care provider for a homeless person with a major mental illness.
8	SA	SA6	I feel comfortable being part of a team when providing care to the homeless.
9	C	C3	I feel comfortable providing care to different minority and cultural groups.
10	C	C4	I feel overwhelmed by the complexity of the problems that homeless people have.
11	PA	PA1	I understand that my patients' priorities may be more important than following my medical recommendations.
12	PA	PA2	Doctors should address the physical and social problems of the homeless.
13	PA	PA3	I entered medicine because I want to help those in need.
14	PA	PA4	I am interested in working with the underserved.
15	PA	PA5	I enjoy addressing psychosocial issues with patients.
16	PA	PA6	I resent the amount of time it takes to see homeless patients.
17	PA	PA7	I enjoy learning about the lives of my homeless patients.
18	PA	PA8	I believe social justice is an important part of health care.
19	PA	PA9	I believe caring for the homeless is not financially viable for my career.

SA= Social Advocacy, C= Cynicism, PA= Personal Advocacy

Research Questions:

1. What are the perceptions of medical school students towards PEH and how do the perceptions of medical students change across their training?
2. How do the perceptions of residents and faculty in regards to PEH differ across specialties?

Methods:

- Medical students Class of 2023-2026, and all residents and faculty within 4 largest departments (Emergency Medicine [EM] Internal Medicine [IM] Obstetrics and Gynecology [Ob/Gyn], and General Surgery [GenSurg]) at George Washington University Hospital were surveyed for a 2 month period using Qualtrics[12] and all statistical analysis was performed in Stata/MP 17.0[13]
- Medical students anticipated graduation date was collected
- Residents current post graduate year (PGY) status was collected
- Attendings years of practice since graduation was collected
- Basic demographic information was also collected, such as age, gender, and race/ethnicity
- GenSurg and Ob/Gyn groups were combined during analysis due to low response rates
- Analysis of Variance (ANOVA) tests were conducted to estimate whether the variation in mean survey scores between groups was statistically significant, using a p-value threshold of 0.05

Results:

There were 238 completed surveys out of 1141 participants. Results are summarized in Table 2.

Table 2: Total Response Rate

	Completed	Invited	Response Rate
Students†	154	736	20.92%
Residents/Fellows	37	214	17.29%
Faculty‡	47	191	24.61%
Total	238	1141	20.86%

†=3 students finished demographic information but did not complete the survey.
‡=1 faculty member did not complete their age but completed the survey.

Comparing Across the Career:

Overall, medical students had similar perceptions as residents and faculty to PEH across the HPATHI subscales of Social Advocacy (SA) Cynicism (C) and Personal Advocacy (PA). There were statistically significant differences in mean scores on PA subscale item 6, "I resent the amount of time it takes to see homeless patients," between at least two groups ($F(2, 237) = [5.62]$, $p = 0.004$) and PA item 9 "I believe caring for the homeless is not financially viable for my career" ($F(2,237) = [4.48]$, $p = 0.012$).

Comparing Across the Medical School:

Medical students across different years of training were largely in agreement across the HPATHI statements. The three highest scoring items were SA item 2, "Homeless people have the right to basic healthcare," with an overall mean of 4.78(0.56), SA item 3, "Homelessness is a major problem in our society," with an overall mean of 4.78(0.42), and PA item 3, "I entered medicine because I want to help those in need," with an overall mean of 4.67(0.50). ANOVA testing revealed that there was a statistically significant difference in mean score on PA subscale item 6, "I resent the amount of time it takes to see homeless patients," between at least two groups ($F(3, 152) = [3.29]$, $p = 0.022$).

Comparing Across Residents:

There were significant differences ($p<0.05$) in mean scores between at least two groups. These include SA item 3 "Homelessness is a major problem in our society" ($F(2,34) = [3.76]$, $p = 0.034$), and SA item 6, "I feel comfortable being part of a team when providing care to the homeless" ($F(2,34) = [3.53]$, $p = 0.040$). There were also differences in PA item 3 "I entered medicine because I want to help those in need" ($F(2,34) = [5.25]$, $p = 0.01$), PA item 6 "I resent the amount of time it takes to see homeless patients" ($F(2,34) = [5.37]$, $p = 0.009$) and PA item 9 "I believe caring for the homeless is not financially viable for my career" ($F(2,34) = [7.57]$, $p = 0.002$).

Comparing Across Specialties:

There were significant differences based on clinical specialty. These results are summarized in Table 3.

Table 3: Mean and Standard Deviation by Survey Questions by Clinical Practice, only significant findings

	Overall	Emergency Medicine	General Surgery/OBGYN	Internal Medicine	F-statistic	P-Score	Numerator DF	Denominator DF
Social Advocacy								
SA1	3.95 (0.86)	3.89 (0.85)	3.95 (0.83)	4.03 (0.91)	2.82	0.025851	2	82
SA3	4.67 (0.73)	4.72 (0.74)	4.5 (1.00)	4.71 (0.46)	2.7	0.031396	2	82
SA4	4.41 (0.71)	4.56 (0.61)	4.30 (0.66)	4.31 (0.85)	2.65	0.034035	2	82
Cynicism								
C2 *	4.49 (0.65)	4.67 (0.53)	4.30 (0.80)	4.41 (0.63)	2.54	0.04062	2	82
Personal Advocacy								
PA6 *	4.09 (0.70)	4.28 (0.61)	3.80 (0.77)	4.07 (0.70)	3.78	0.005329	2	82
PA9 *	4.18 (0.68)	4.25 (0.77)	4.20 (0.52)	4.07 (0.65)	2.44	0.047669	2	82

*=negatively coded

Discussion:

- Perceptions towards PEH remained largely stable over the course of a medical career
- In medical school there was a spike in positive perceptions during clinical rotations, illustrating the impact of experiential learning to positively impact attitudes towards vulnerable populations
- There were significant differences in perceptions of residents and faculty based on their clinical specialty, with individuals in the two surgical based specialties having more negative perceptions
- This may be due to either 1) different specialties attract different personalities and therefore have differing baseline attitudes or 2) the lack of interaction with PEH amongst these specialties may foster a lack of knowledge or misconceptions
- Overall scores were relatively positive, showing the largely favorable attitudes that physicians and students at all levels have towards PEH

Limitations:

- Single, academic, urban site with unique population and possible variation in baseline attitudes compared to other individuals across the country
- Voluntary, anonymous study leading to lower response rate and limited significance
- Nonresponse bias if individuals who were more interested participated in the survey thereby leading to higher scores
- Conversely, negative thoughts may have driven desire of survey completion, leading to underestimates
- Social desirability bias given the nature of the issue may have overestimated true perceptions

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