

Assessing Attitudes of Homelessness using Street Medicine Curriculum in Family Medicine Residency

Jaclyn Sylvain, DO¹; Kelly Hirko PhD MPH²; Deb Sears³; David Klee, MD FAAFP¹

¹ Munson Family Practice Residency, Traverse City, MI; ² Michigan State University College of Human Medicine, East Lansing, MI; ³ Munson Medical Center, Traverse City, MI

Background

Street Medicine is a burgeoning field of medicine aimed at delivering healthcare directly to people experiencing homelessness where they live. The Health Professional Attitudes Towards the Homeless Inventory (HPATHI) is a validated survey tool aimed at assessing the interest and confidence levels of medical students and residents with respect to delivering healthcare to those experiencing homelessness.

While street medicine programs at residency training and medical schools have become more commonplace, a formal curriculum and utilization of a survey tool on its impact is lacking.

Objective: To study whether a two-hour structured educational session on homelessness and street medicine could impact learners' HPATHI results.

Methods

- The study population consisted of members of the Munson Family Practice residency and medical students from Michigan State University College of Osteopathic Medicine Traverse City Campus.
- Street Medicine educational sessions occurred on 9/22/22 and 9/29/22. The two-hour educational sessions included a live lecture by Dr. Klee, video recorded lecture by Dr. Sylvain and video clips from Street Medicine Institute.
- A pre/post study design was utilized with anonymous, self-administered 21-question online HPATHI surveys emailed to participants before and after participation in the educational session.
- Each survey item was assessed using a 5-point Likert scale ranging from "Strongly Disagree = 0" to "Strongly Agree =5."
- Using descriptive statistics, mean differences in attitudes of healthcare professionals regarding those experiencing homelessness were tested using dependent group t-tests.
- All statistical analyses were performed using SAS, version 9.4 (SAS Institute, Cary, NC), with statistical significance defined as $p < 0.05$.

Table 1. Study participants according to provider type

Provider Type	Overall	Pre-Lecture (N=21)	Post-Lecture (n=19)
OMS/MS3	12 (30.0%)	6 (28.6%)	6 (31.6%)
PGY1	11 (27.5%)	6 (28.6%)	5 (26.3%)
PGY2	7 (17.5%)	4 (19.1%)	3 (15.8%)
PGY3	8 (20.0%)	4 (19.1%)	4 (21.1%)
Physician	2 (5.0%)	1 (4.8%)	1 (5.3%)

Table 2. Prior Participation in the Munson Street Outreach Efforts

	Overall	Pre-Lecture (N=21)	Post-Lecture (n=19)
Never	26 (65.0%)	14 (66.7%)	12 (63.2%)
1-2 times	2 (5.0%)	1 (4.8%)	1 (5.3%)
3-4 times	2 (5.0%)	1 (4.8%)	1 (5.3%)
More than 5 times	10 (25.0%)	5 (23.8%)	5 (26.3%)

Table 3. Mean Likert scale scores for HPATHI measures (0=Strongly Disagree to 5=Strongly Agree)

Survey item	Pre-Lecture (N=21)		Post-Lecture (n=19)		% change
	Mean	SD	Mean	SD	
Homeless people are victims of circumstance.	3.57	1.0	3.84	0.9	7.6%
Homeless people have the right to basic healthcare.	4.90	0.3	4.79	0.4	-2.2%
Homelessness is a major problem in our society.	4.62	0.5	4.74	0.5	2.6%
Homeless people choose to be homeless.	2.14	0.8	1.95	0.8	-8.9%
Homeless people are lazy.	1.67	0.7	1.53	0.6	-8.4%
Health-care dollars should be directed toward serving the poor and homeless.	4.29	0.6	4.47	0.5	4.2%
I am comfortable being a primary care provider for a homeless person with a major mental illness.	3.76	0.9	3.89	0.9	3.5%
I feel comfortable being part of a team when providing care to the homeless.	4.24	0.8	4.53	0.5	6.8%
I feel comfortable providing care to different minority and cultural groups.	4.43	0.6	4.53	0.6	2.3%
I feel overwhelmed by the complexity of the problems that homeless people have.	3.29	1.1	3.00	1.0	-8.8%
I understand that my patients' priorities may be more important than following my medical recommendations.	4.19	0.4	4.53	0.51	8.1%
Doctors should address the physical and social problems of the homeless.	4.38	0.6	4.63	0.5	5.7%
I entered medicine because I want to help those in need.	4.57	0.6	4.79	0.5	4.8%
I am interested in working with the underserved.	4.52	0.7	4.79	0.4	6.0%
I enjoy addressing psychosocial issues with patients.	4.05	0.9	4.42	0.8	9.1%
I resent the amount of time it takes to see homeless patients.	2.10	0.9	1.67	0.8	-20.5%
I enjoy learning about the lives of my homeless patients.	4.33	0.7	4.47	0.6	3.2%
I believe social justice is an important part of health care.	4.38	0.7	4.53	0.7	3.4%
I believe caring for the homeless is not financially viable for my career.	2.38	0.9	2.47	1.2	3.8%

Results

- A total of 21 participants completed the pre-survey while 19 participants completed the post-survey (Table 1).
- 7 participants (34%) had prior participation in Munson Street Outreach (Table 2)
- Improvements in attitudes were observed for most of the survey measures based on Mean Likert scale scores for each HPATHI measure (Table 3).

Discussion

- The greatest post-education improvement in scores was observed for attitudes related to resentment about the time it takes to see homeless patients (-20.5%), followed by homeless people choosing to be homeless (-8.9%), and feeling overwhelmed by the complexity of problems that homeless individuals face (-8.8%).
- The mean difference in attitude scores was statistically higher post-curriculum for one HPATHI question regarding understanding patients' priorities may be more important than following my medical recommendations ($p=0.03$).
- In keeping with the osteopathic tenets and a more holistic approach to medicine, a crucial step for further curriculum implementation and HPATHI assessment would be inclusion of a practical street medicine experience.

Conclusion

This study demonstrated that while the current street medicine lecture series resulted in improvement in several measures in healthcare provider attitudes towards those experiencing homelessness and confidence in caring for this population, there remains room for improvement.

Future curriculum should target concerns about financial viability for primary care physicians taking care of those experiencing homelessness.

Acknowledgements

There were no sponsors or grants for this study. On September 21st, 2022, the Munson Healthcare IRB determined this study was exempt of IRB review, via exemption category #46.104 (d)(1)(2i).