

# Improving the Attitudes to Homeless Persons in a Family Medicine Residency

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## Abstract

**Introduction:** Family medicine providers are at the forefront of serving homeless persons. It is important to prepare family medicine residents for this responsibility during residency. In the current study, we aimed to assess the effect of a series of enrichment activities on the attitudes toward homeless persons held by residents, faculty, and staff in a rural family medicine residency program.

**Methods:** The residency program implemented a 6-month enrichment activities series that provided various educational experiences and aimed to improve the participants' knowledge of and attitudes toward homeless persons. Participants completed 2 anonymous online surveys before and after the enrichment series: (1) the Health Professional's Attitude Toward the Homeless Inventory (HPATHI) and (2) a short survey assessing the understanding of local issues that affected homeless persons. Two-tailed Student *t* tests were used to compare the survey results.

**Results:** Of the 48 eligible participants, 42 (88%) completed the surveys before enrichment activities and 41 (85%) completed the surveys afterward. Engagement in the enrichment series was associated with a significant improvement in attitudes supporting social advocacy, but it did not affect self-reported levels of cynicism or personal advocacy. Participant knowledge of local homelessness issues improved, but the difference was not statistically significant.

**Conclusions:** The longitudinal enrichment activities series, which was implemented in a rural family medicine residency program and aimed to provide experiences working with homeless individuals, was effective in improving attitudes supporting social advocacy among participants.

## Keywords

attitudes, education, homelessness, residency

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## Introduction

The US Department of Health and Human Services defines a homeless person as an individual without permanent housing who lives on the streets or stays in a shelter or in another unstable or nonpermanent situation, including abandoned buildings and vehicles.<sup>1</sup> According to a point-in-time count, on any single night in 2019, more than 567 000 individuals experienced homelessness in the United States, with the number increasing for the third consecutive year.<sup>2</sup> Homelessness is a risk factor for new health conditions and exacerbates existing conditions, and the American Academy of Family Physicians identifies access to safe and affordable housing as a social determinant of health.<sup>3</sup> Homeless patients are more likely to use the emergency department than a patient with stable housing,<sup>4</sup> and they have a higher lifetime burden of chronic conditions, mental health issues, and substance abuse.<sup>5</sup> Many newly homeless individuals

have a clinically significant illness burden immediately before becoming homeless.<sup>6</sup> Family physicians and other primary care providers are among the principal health care providers for homeless persons.<sup>7</sup> However, providing health care for homeless persons is challenging and requires specific unique competencies.<sup>8</sup>

The Accreditation Council for Graduate Medical Education Family Medicine Milestone requirement states that a family medicine resident should demonstrate humanism and cultural proficiency,<sup>9</sup> but no specific curriculum

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guideline or requirement exists to prepare family medicine residents to provide health care to homeless persons. Nevertheless, family medicine residency programs have recognized the importance of preparing their graduates to care for homeless patients, and a few programs have implemented curriculum changes. For instance, the Doctors-On-The-Street program was started by the Metro Health Medical Center Family Medicine Residency in Cleveland, Ohio.<sup>10</sup> The program trains learners to offer “doctor-mom/dad” skills to homeless persons—they give hugs and listen to them, provide over-the-counter medications and supplies, and provide limited skin and foot care and basic health screenings. Qualitative data showed improved empathy and understanding of homelessness by student learners. The Saint Louis University Family Medicine Residency (St. Louis, Missouri) implemented a 5-year longitudinal curriculum focusing on an underserved community.<sup>11</sup> The curriculum consisted of workshops and seminars about the social determinants of health and significantly increased the residents’ knowledge of homelessness, awareness of obstacles to seeking health care, and comfort level in incorporating culturally relevant information into treatment plans for patients from an underserved group. Although these studies are notable, there is a need to study the effectiveness of new and innovative family medicine residency curricula.

This study aimed to determine whether implementation of a 6-month series of enrichment activities on homelessness improved family medicine residents’ and staff’s knowledge of homelessness issues and their attitudes toward this population by using a validated survey.

## Methods

The minimal-risk study was approved by the Institutional Review Board. Informed consent was obtained from all study participants.

### Enrichment Activities

From October 2018 through April 2019, we incorporated various events or activities into our community hospital-based family medicine residency program that aimed to provide participants with opportunities to learn about and work with homeless individuals (Table 1). Before this series, the residency program encouraged residents and staff to perform community service, but the program lacked emphasis on working with homeless persons. The first event (termed *time of assessment 1* [TOA1]) was a noon lecture introducing data regarding homelessness on a national and local scale. We also organized a hospital-wide expert panel discussion during grand rounds, featuring panelists who have worked intimately with homeless persons.

The discussion incorporated anonymized but true stories and struggles of local homeless individuals.<sup>12</sup> A poverty simulation, organized by the United Way had participants trying to maintain shelter and meet basic needs for a month on a low-income budget. Additionally, throughout the 6-month period, we arranged hands-on experiences for all residents, including a police ride-along, spending a night at the warming shelter, spending time with homeless individuals at the hospitality house, or providing care for homeless patients in the free clinics. Participation in these experiences was highly encouraged but not mandatory.

### Data Collection

Forty-eight individuals affiliated with the residency program (17 residents, 11 faculty, and 20 nursing and rooming staff) were invited to participate in 2 anonymous online surveys, administered before the first event (TOA1) and after completion of the last event (TOA2). Data were recorded and managed with the REDCap system, a secure, web-based application designed to support data capture for research studies.<sup>16</sup>

The first survey was designed by the study team to measure the participants’ beliefs about local issues regarding homeless persons (Table 2). The survey consisted of 5 statements that were scored on a 5-point Likert-type scale (1 represented “strongly disagree” and 5 represented “strongly agree”). A 2-tailed Student *t* test (equal variances assumed) was used to compare scores before TOA1 and after TOA2 on each of the 5 belief items.

The second survey administered was the Health Professional’s Attitude Toward the Homeless Inventory (HPATHI), scored on a 5-point Likert-type scale.<sup>17</sup> The HPATHI is a validated instrument with 19 items, divided into subscales: social advocacy (one’s belief in society’s responsibility to care for homeless persons), cynicism (a negative attitude and sense of futility in serving homeless persons), and personal advocacy (a personal commitment to work with homeless persons). Higher scores indicate a more positive attitude toward homeless persons (ie, greater support for social advocacy and greater personal commitment but less cynicism). A 2-tailed Student *t* test (equal variances assumed) was used to compare scores before TOA1 and after TOA2 on the overall HPATHI and each of the 3 subscales.

## Results

Participation rates varied (Table 1). Of the 48 eligible individuals affiliated with the residency program, 42 (88%) completed the pre-TOA1 knowledge survey about local issues and 41 (85%) completed the post-TOA2 survey. We did not collect demographic information from participants

**Table 1.** Enrichment Activities for the Family Medicine Residency.

Activity	Date	Description	Participation, no. (%)
Lecture on homelessness and homeless medicine	10/19/2018	Introduced data regarding homelessness on a national and local scale	16/25 (63.6)
Police ride-along	10/2018-4/2019	Introduced concepts of street medicine and homeless medicine Resident physicians accompanied officers from the police department (neighborhood resource officers), <sup>13</sup> riding in the passenger seat of the police vehicle Family medicine residents may have been present when officers answered calls of duty regarding homeless individuals (in shelters, on the streets)	8/29 (27.3)
Warming shelter, night shift	10/2018-4/2019	Spent a night at the local warming shelter, <sup>14</sup> with the shelter staff The shelter can host up to 40 guests and was frequently full on cold nights	5/27 (18.2)
Panel discussion on caring for homeless persons	1/28/2019	Hospital-wide expert panel discussion during grand rounds showcased experiences working with homeless persons Panelists were a neighborhood resource police officer, the director of a free clinic, a social worker who regularly had outreach activities with homeless persons, and the project manager of the Collaborative to End Homelessness Discussion included anonymized (true) stories and struggles of local homeless individuals	18/30 (60.6)
Poverty simulation	3/28/2019	Poverty simulation (2-h activity), designed by the United Way, <sup>15</sup> was held during a faculty education day Participants were assigned an identity in a family for a simulated month. During each 15-min “week,” participants navigated daily life (eg, retain shelter, meet other basic needs) on their low-income budget Afterward, participants were debriefed and the simulation was discussed	11/36 (30.3)

because of concerns that additional information would risk identifying participants from this small group. However, regarding race/ethnicity, 90% of the study participants identified as white. Survey data indicated that the respondents did not have significantly different beliefs about homeless persons after participating in these activities (Table 2).

Overall, 38 individuals (79%) completed the HPATHI before TOA1 and 36 (75%) completed it after TOA2 (Table 3). The social advocacy subscale showed a significant difference between TOA1 and TOA2, with respondents more likely to believe at TOA2 that society had a responsibility to care for homeless persons. However, we did not observe any significant differences with the personal advocacy subscale, the cynicism subscale, or the overall scale. Notably, more than half the respondents endorsed a statement (“agreed” or “strongly agreed”) that caring for homeless persons is not a financially viable career.

## Discussion

Since the validation of the HPATHI, only 3 studies have reported using this instrument.<sup>18-20</sup> One used HPATHI in a

cross-sectional survey.<sup>19</sup> The other 2 showed that an existing medical school rotation, which gave the participants some exposure to homeless persons, did not change the attitudes among students for any subscale.<sup>18,20</sup> Our study is the first to show significant improvement for any subscale of the HPATHI when used to assess attitudes of health care professionals toward homeless persons.

Unlike the other curriculums reported in prior studies of medical trainees, our enrichment activities provided educational experiences in the classroom and on the streets. Participants were mostly observers but also had simulated first-hand experience, and they learned from health care providers and other community individuals who worked intimately with homeless persons. Our enrichment activity series was longer than a typical rotation, which usually lasts only 2 to 4 weeks; because it was a longitudinal experience that lasted for 6 months, almost every resident, regardless of year of education and existing rotation, could attend at least 1 event. Anecdotally, we heard that many participants thought that the lecture, panel discussion, and poverty simulation were meaningful. They also valued their experiences at the warming shelter and hospitality house.

**Table 2.** Participant Beliefs about Local Homelessness.

Belief	Before TOA1 (n = 42) <sup>a</sup>	After TOA2 (n = 41) <sup>a</sup>	Test statistic
Local homeless persons do not have health insurance	3.62 (1.03)	3.27 (1.07)	$t(81) = -1.52; P = .13$
Local homeless persons do not have a primary care provider	3.74 (0.89)	3.32 (1.17)	$t(81) = -1.85; P = .07$
It is hard to become homeless in that locality	2.14 (0.72)	1.83 (1.07)	$t(81) = -1.96; P = .05$
Most homeless persons have mental illness	3.36 (0.93)	3.33 (0.86)	$t(80) = -0.16; P = .87$
Most homeless persons use the emergency department mostly for emergent or urgent issues	3.00 (0.94)	2.88 (1.12)	$t(81) = -0.54; P = .59$

Abbreviations: TOA1: the first event in the enrichment activities series; TOA2: the last event in the enrichment activities series.

<sup>a</sup>Items were scored on a 5-point Likert-type scale (1 represented “strongly disagree” and 5 represented “strongly agree”). Data shown are mean (SD).

**Table 3.** Participant Responses to the HPATHI Survey.

Scale	Before TOA1 (n = 38) <sup>a</sup>	After TOA2 (n = 36) <sup>a</sup>	Test statistic
Overall scale	3.93 (0.45)	4.11 (0.38)	$t(70) = 1.82; P = .07$
Subscale			
Social advocacy	4.01 (0.47)	4.26 (0.42)	$t(72) = 2.43; P = .02$
Personal advocacy	3.91 (0.54)	4.09 (0.45)	$t(70) = 1.48; P = .14$
Cynicism	3.81 (0.54)	3.89 (0.45)	$t(70) = 0.66; P = .51$

Abbreviations: HPATHI: health professional’s attitude toward the homeless inventory; TOA1: the first event in the enrichment activities series; TOA2: the last event in the enrichment activities series.

<sup>a</sup>Items were scored on a 5-point Likert-type scale (1 represented “strongly disagree” and 5 represented “strongly agree”). Data shown are mean (SD).

We noted that the participants’ knowledge of local homelessness issues did show some improvement, but the changes were not statistically significant. It is possible that we did not see a significant improvement in the attitudes or knowledge of our cohort because residents and clinic staff likely had some experience with working with homeless persons before the series was launched. The residency clinic sees patients from a markedly underserved population. As a result, almost every resident and staff had provided care for a patient who has experienced homelessness. We speculate that these enrichment activities could promote greater change in attitudes and knowledge in a more experientially naïve cohort.

We did not observe a significant improvement in the HPATHI subscales of cynicism or personal advocacy. Providers and staff in a primary care field may be less cynical about homeless persons; in that case, program participation may be less likely to have a significant impact. To improve personal advocacy, a longer and more consistent curriculum change may be necessary. Many factors affect one’s decision-making process when choosing a patient population, including past experiences, personal and professional interests, and importantly, the individual’s loan or debt burden. Additionally, greater exposure to a role model who works with homeless persons or in “street medicine” may inspire a career choice to work with homeless persons as a medical provider. Street medicine is

a nationally and internationally growing field of medicine. Many areas of the United States have projects or organizations that provide health care directly to people on the streets.<sup>21</sup>

### Limitations

Although almost everybody associated with the residency program participated in the surveys, our sample size was small. Our participant sample also was homogenous with regard to race/ethnicity. Thus, these results may not be generalizable to a more heterogeneous sample. Additionally, we did not use a matched-pair survey design, partially to protect respondent confidentiality. We also did not have a component designed to examine the effect of each enrichment activity. Event-specific assessments would have been useful for multiple reasons. First, some events were not offered to every participant. For instance, the police ride-along experience was open only to residents. Second, some events provided more opportunities for participants to work with homeless persons. For instance, the police ride-along did not always provide exposure to the homeless community because the schedule of the police officer affected the activity, but a night at the warming shelter or time at the hospitality house provided more exposure. Third, different events may have focused on different subscales. Another potential limitation is the Hawthorne effect

bias. In addition, the HPATHI has intrinsic limitations, including a borderline acceptable test-retest coefficient.<sup>22</sup>

### Future Studies and Design of Enrichment Activities

We plan to continue providing enrichment activities in the residency program to increase our residents' exposure to serving homeless persons. We are encouraged to see that implementation of a 6-month series improved attitudes toward homeless persons among family medicine residents and clinic staff. Equally encouraging was the improved knowledge of local homeless issues, even if the change in knowledge was not statistically significant. Future studies should determine whether a longer and more diverse enrichment program improves attitudes and beliefs among residents, faculty, and staff.

In addition, future studies could examine these effects across multiple residencies because many community-based residency programs inherently are relatively small. A direct patient-care component would also be a good addition to such activities, and the HPATHI tool could be used to assess its effect on personal advocacy and cynicism. Role-modeling relationships and direct patient care can be developed in many ways. One intriguing option is exposure to a street medicine practice. An off-site rotation, where learners can spend a few weeks working with a provider who sees many homeless patients, might be a key component in improving personal advocacy and overall attitudes toward homeless persons. Other forms of education can include lectures or discussions led by street medicine providers or other physicians who work with homeless persons.

We anticipate that further studies will be done by residents and faculty. As mentioned above, a component design or a matched-pair design (or both) can be considered for future studies, to identify which aspect of these activities has the most impact and to determine which group of individuals is more likely to be positively influenced by the enrichment activities. A combination of quantitative and qualitative data can also be collected. Considering the intrinsic limitations of HPATHI itself, having qualitative data such as narratives can help enrich future studies and avoid excessive emphasis on a single survey tool.

### Conclusion

A 6-month series of enrichment activities, implemented in a rural family medicine residency, was designed to improve the understanding of and the attitudes toward homeless persons. The program was effective in improving attitudes toward social advocacy. Knowledge of issues affecting homeless persons also improved after the intervention, but this difference was not statistically significant.

### Authors' Note

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