Title: Untold Stories: Emergency Medicine Residents' Experiences Caring for Diverse Patient Populations

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Abstract

Objectives: The Accreditation Council for Graduate Medical Education expects specialties to teach and assess proficiency in culturally competent care. However, little guidance has emerged to achieve these goals. Clinical training within socioeconomically disparate settings may provide an experiential learning opportunity. We sought to qualitatively explore resident experiences working in the generic clinical learning environments (i.e., exposure to socioeconomically diverse patients across different training sites) and how it shapes cultural competency related skill development.

Methods: Residents were recruited from emergency medicine (EM) programs. We used purposeful sampling across all post graduate years and elicited experiences related to working at the different sites related to cultural identity, frustrating patient encounters, vulnerable populations, and development of health disparities/social determinants of health knowledge. Individual structured interviews were conducted via phone between May and December 2016. Interviews were audiotaped, transcribed, anonymized and analyzed using systematic and iterative coding methods.

Results: Twenty-four interviews revealed 3 main themes. EM residents' experiences caring for patients across sites shaped their understanding of: (1) potential patient attributes that affected

the clinical encounter, (2) difficulties in building rapport had adverse effect on the clinical evaluation, and (3) residency program and training experiences shaped their clinical preparedness, and willingness to work in underserved areas.

Conclusion: Assessing the impact disparate clinical setting exposures have on trainees' preparedness to care for socioeconomically diverse patients can provide valuable insight for medical educators into barriers, and facilitators to delivering optimal learning and patient care. Participants provided a breadth of stories illuminating their real-world consciousness and competency with meeting the needs of diverse populations and their access to varied educational outlets to grapple with the disparities they observed. More research is needed to uncover effective strategies to help residents thrive and feel more prepared to care for diverse populations.

Introduction

The Association for American Medical Colleges (AAMC) published a framework[1] along with other investigators[2-5] synthesizing the empirical evidence related to cultural competency in an effort to guide undergraduate medical education. In this 2005 AAMC report cultural competence was described as "patient/family-centered care with an understanding of the social and cultural influences that affect the quality of medical services."[1] As medical students advance to the level of trainee the principles of cultural competency do not change, and become increasing more relevant. However, little practical guidance has emerged for post-graduate educators. At a national level, there has been increasing attention to this gap in post-graduate training curriculum.[6] In a cross-sectional survey of senior residents across multiple specialties, investigators found that residents overwhelmingly affirmed the importance of providing culturally competent care, however only 8% felt prepared with these skills.[7] In qualitative interviews of Internal Medicine senior residents, many desired additional educational opportunities to optimize cross-cultural patient care.[8] In general surgery specialties, clinical training opportunities in international low-resource settings were found to have a positive influence on resident's understanding of health disparities and confidence in their cultural sensitivity.[9] Emergency departments (EDs) present a unique challenge for providers to continuously adapt to the diverse socio-cultural and economic needs of their patient population.

The Emergency Medical Treatment and Labor Act of 1986 ensured that patients seeking emergency medical care in hospitals were essentially guaranteed access to medical screening exam, treatment if unstable, and that they would not be turned away based on their inability to pay.[10] Therefore, emergency departments have evolved as a healthcare entry point for those with acute medical conditions, and others vulnerable to unmet care, such as underinsured patients, as well as patients facing non-financial barriers[11] related to sexual orientation,[12,13] or discrimination. In the United States, residency clinical training which occurs in diverse environments (i.e., low-resource public hospitals, suburban community hospitals, well-resourced academic centers, etc.) may provide unique experiential learning opportunities related to cultural

competency and health disparities. Despite the Accreditation Council for Graduate Medical Education (ACGME) requirement for all specialties to teach and assess proficiency in culturally competent care, education in Emergency Medicine (EM) is challenged due to limited guidance by EM educational organizations (personal communication), and time pressures on accommodating additional formal education into the EM residency curriculum. Therefore, within current generic clinical learning environments that provide exposure to socioeconomically diverse populations, it is imperative to explore how these unstructured learning experiences affect residents' knowledge, perceptions, and cultural competency skill development.

Methods

Participants

We recruited residents from three accredited multi-site EM training programs. Each of these programs provides their residents with clinical training experiences in at least 3 distinct sites (i.e., tertiary/quaternary care academic medical center, medically low-resourced/underserved and suburban/community hospital setting). We selected multi-site residency programs in order to ensure that the residents would have a high likelihood of encountering a wide range of patients from varied racial/ethnic, and socioeconomic backgrounds. We used purposeful sampling[14] (i.e. sample selected based on predetermined criteria and having completed a clinical rotation at all 3 hospital sites) to recruit residents across all post graduate years. The project was introduced to residents during residency conference, and follow-up recruitment emails (approximately 4-6 weeks apart) were sent from a primary contact person within each program.

Data collection

Individual interviews (n=24) were conducted by the research team (AH, EH, JS) using a semi-structured guide (Appendix 1) between May and December 2016. We elicited resident experiences related to working at the different clinical sites and specifically direct or observed patient care interactions. We explored topics related to cultural identity, and frustrating patient care experiences related to differences in cultural identities between the provider and patient. Based on the ACGME EM milestones,[15] we inquired about strategies for identifying and caring for vulnerable populations, as well as the residents' understanding of and application of

health disparities/social determinants of health knowledge in daily practice. Interviewers had prior experience with qualitative methodology (i.e., designing interview guides, conducting interviews/focus groups, and/or thematic analysis).

We considered one-on-one in-depth interviews via the phone to be the best modality given the sensitive nature of the dialogue, which encompassed topics such as race, values, and socioeconomics. We believed that the residents would be more likely to share their thoughts and experiences in a setting that maintained their privacy and enable residents to express freely their positive and negative thoughts related to their clinical experiences. The faculty interviewer (AH) also did not interview residents from their local institution. Prior to each interview, participants provided their verbal consent for both the interview and audio-recording. Each participant received a $20 gift card via mail as a token of appreciation for participation. We collected self-reported year in residency and demographics or obtained it from National Resident Matching Program applications (e.g., race, and gender). Interviews were audio recorded and anonymized using a random identifier, then transcribed verbatim and reviewed for accuracy. Interviews were reviewed throughout the study and conducted until thematic saturation.[16] This study was reviewed by the Institutional Review Boards at all participating sites and either approved (site 2) or deemed exempt (site 1 and 3).

Data analysis

Using a phenomenological approach, we explored individual narratives, as well as convergent and divergent patterns within the study sample.[17] All transcripts were initially independently reviewed and iteratively coded (A_, E_). We compared codes and discussed among the authors (A_, E_) to ensure the trustworthiness of the analysis. We (A_, E_) organized recurring codes into categories of similar content, then further discussed and arranged into broader themes. Two authors (_C, _H) independently read the transcripts to confirm the identified themes. Coders reflected on potential biases which could color interpretations. The lead author (A_) identifies as an underrepresented minority and has a scholarly interest in health disparities, and curriculum to improve care to socially and economically disadvantaged populations. One secondary coder (_C) previously conducted research on injury prevention in low-resource communities. Another author (E_), a medical student at the time of the study, was less familiar with residency in

general, which likely enhanced their inquisitive nature and interviewing. The other secondary coder (_H), a residency program director, had concerns that they were able to identify some of the participants. However, their participation in the analysis was considered valuable, given their perspective and ability to weigh in on the practical implications of these findings on residency curriculum. Resident participants and non-participants were presented with the findings during a grand rounds style presentation at two of the participating sites to allow for discussion about the results and achieve better understanding of the findings. Data management and analysis was facilitated through use of Dedoose® (Version 7.5.15, Los Angeles, CA) software.

Results

Twenty-four EM residents participated in the study and their characteristics are in Table 1. The majority of the participants were from site 1 (n=10, 41.7%), in their first year of training (n=10, 41.7%), male (n=14, 58.3%), and not from under-represented in medicine backgrounds[18] (n=20, 83.3%). Interviews were an average of 50 minutes in length.

Our analyses revealed three main themes: EM residents' experiences caring for diverse patient populations across the varied clinical sites shaped their understanding of: (1) potential patient attributes that affected the clinical encounter, (2) difficulties in building rapport had adverse effect on the clinical evaluation, and (3) residency program and training experiences influence on clinical preparedness, and willingness to work in underserved areas. Additional illustrative quotes representing main themes and subthemes are in Table 2.

Trainees perceived that challenging clinical encounters were attributed to patient factors

Residents described frustrating experiences that they had either experienced or observed between patients and providers with different cultural identities. The cultural identity difficulties occurred in instances when there were differences related to gender, race, ethnicity, and/or socioeconomic status. Residents perceived that there were underlying reasons specific to the patient that potentially explained these challenging encounters. Resident participants commonly referred to patient social behaviors, perceived patient values, language or literacy barriers, and

mistrust of providers. One resident described an experience with a frustrated patient who felt she was being ignored because of her race and socioeconomic status:

"I remember walking by and… her saying, and trying to get the message out there, "I don't think any of you guys are seeing me because you know I'm B*lack and I don't have insurance, and you're putting me at the bottom of the list." ….I think...she was thinking that maybe the doctors were biased against her…Going into that patient interaction was tough* because I knew there was already this frustration on *her part. I was a little scared to go in."* -10028, Site 2

When reflecting on personally challenging cross-cultural patient experiences, residents described how it was "human nature" and not secondary to malicious intent. The participants noted that differences between them and their patients made it difficult to build rapport because it pushed the trainees out of their "comfort zone." Certain patient behaviors were felt to contribute to difficulty in communication and engagement. When patients were perceived as angry, or demanding, residents were reluctant to engage with them. For example:

"I was talking with another doctor…. He said if he walks in a room and …, no matter who they are, [if] the fi*rst thing [the patient does] is complain, "Finally I get to see a doctor. Man, I've been waiting hours to see you." He was like, "My brain just shuts off."*
-10031, Site 2

Another patient-specific contributor that residents mentioned was the perceived value patients place on health and health care services. Residents voiced an ease of engagement with more affluent patients or those with higher education/health literacy, due to what they felt was better alignment with expectations of emergency care and ability to communicate their health needs. Conversely, participants noted frustration with patient care expectations in the low-resource hospital setting. Residents reported observing differences in values related to health behaviors and healthcare utilization in these settings, which were further attributed to poor patient health literacy. One resident shared their view of a minority population and perception of how this group valued healthcare:

*"I have had the most challenging encounters with the more l*ow-income, African American population, because it's so different than the culture in which I was raised. I'm from a somewhat wealthy, White background. My medical school was actually an urban safety net hospital, so I've been exposed to this population for several years now, and I'm definitely learning how to relate *with them better …but I would say overall, they give the impression that when you're dealing with them, it seems less respectful and a lot of time they seem less engaged in their healthcare."* -10013, Site 1

Lack of competency in building rapport with diverse patients affected clinical care

Residents noted that cultural identity differences tended to affect care provided both interpersonally and in the clinical approach to evaluating the patient. Participants illustrated the ways in which difficulties understanding the patient and uncertainty in determining the patient's health care needs led to three reactions: 1) reduced amount of time with the patient, 2) spending a substantial amount of time with the patient, or 3) ordering more tests. For example, participants noticed times where they were fully engaged with certain patients, and reluctant to speak with other patients. For example:

"This guy who is really well off, a White guy and ver*y affluent… I think I spent probably almost* 15 minutes in his room,... The second [African American] guy was very similar to the rest of the people in the department where I said this is just another heart failure patient who can't afford his meds. All *right, we're going to admit him and that's what I was thinking the entire time we were talking. Probably spent maybe five minutes in his room… I feel like I definitely maybe spent* more time with the patient who is more like my, you could say, cultural iden*tity."* -10021, Site 3

Another resident describes how differences in language and culture lead to less confidence in clinical reasoning and resulted in opting to order additional diagnostic tests:

"… using an interpreter phone,...I can only get so much of a history from the phone, so we have *to, unfortunately, work somebody up a lot more than we would otherwise,… how you differentiate chest pain is a lot of the time based on history….you're not going to get it talking*

through an interpreter, so unfortunately, a patient is getting a very extensive workup that they *may or may not have needed,...That can be quite frustrating."*
-10017, Site 1

Training influences clinical preparation and willingness to work in underserved areas

Residents commented on how their residency experiences affected their ability to communicate with diverse patient populations. Many participants remarked that their communication behaviors and interpersonal skills were shaped indirectly through modeling senior residents or faculty. They also mentioned the key role the faculty make-up had on their residency experiences:

"...we have people with different sexual orientation, people with different ethnicities, Black, W*hite, a good amount of females versus males…We [have] people who are Muslim….that* increases the odds of delivering good care because you just have a better understanding.... As a *physician you want to hear from other people, what their perspective is, just in case you're faced* with a patient that may have a similarity with one of your [faculty] physicians...Sometimes if you *don't have that supply or diverse experience you can be missing out on the efficacy of your care as well as the opportunity to send people from your program to serve a certain community."* - 10024, Site 3

Participants recalled having training related to caring for diverse patient populations. These experiences were described as having occurred during medical school, self-initiated extracurricular activities (i.e., volunteerism, public health pursuits, etc.), and less commonly in residency training. Participants referenced experiences during residency with EMS ride-alongs, "windshield" tours, or a video, as methods for learning about surrounding areas and patient populations. Resident experiences with formal educational curriculum or didactic instruction were perceived to increase confidence and ability to address diverse patients' needs. For example, one resident described utilizing recent residency lecture material while caring for a presumed LGBTQI patient that initially presented to the ED with altered mental status:

"…we had an opportunity to have a discussion about how they viewed [their] gender and identity…We were better able to care for the patient …We allowed them to essentially advocate for themselves and be more involved in their care…I feel like we recently had a lecture about how to navigate these scenarios. I felt prepared for this….because I had to apply something that I had just recently learned."
-10027 Site 2

Overwhelmingly, residents reported that working within diverse clinical settings exposed them to unfamiliar cultures, which helped to introduce them to different cultural practices, parenting styles, and language. They stated that their experiences helped broaden their perspective and increased their confidence in being able to care for a variety of patients. Participants training environment experiences were also described as a career asset post-residency because it improved their marketability (i.e., familiarity with different hospital settings, and electronic health record software, etc.), and helped them feel more informed in deciding which clinical setting they preferred. However, when participants compared their experiences across the disparate clinical sites, they commonly remarked on frustrating experiences they had working within the lower resource hospital settings and with underserved populations.

Residents revealed how they were initially eager to work in underserved environments, but often felt overwhelmingly defeated working in this setting, given that they were unable to make the difference they had envisioned. For example, one resident remarked, "That's why I wanted to just move—I've decided to leave and go into community *medicine…*You hear so many really sad situations. You can only do so much. I mean, you can give them the medicines they need while they're in the hospital, but if they can't get them once they leave, they're gonna come back again *in a couple weeks just as sick… It's very difficult."* -10023 Site 2

Others commented that their attempts to identify barriers to patient health were felt to not be useful given that they were often unable to do anything about it:

*"I love educating patients …, and it became a repetitive thing [that] I leave a lot o*f my shifts *very frustrated and being like I didn't help anyone. I didn't do anything…it obviously happened*

at all sites….but it seems to be very prevalent in the sense of the inner-city *population. "Well, we'll just go to the ER, and we'll get everything figured out." Or, "We'll get a prescription for this." …It became just very frustrating for me in terms of [it was] hard to teach, hard to educate* patients, hard to instill, [and arrange] follow up. It almost felt like a broken system to me, which *some people thrive in... It just wasn't really for me personally."*

-10010, Site 1

Other common sources of frustration conveyed were related to the health system or inherent to the chaos of the emergency department. These extrinsic challenges identified by the resident to care delivery were associated with lack of time, lack of relationship with the patient, lack of resources, lack of ability to secure and verify follow-up with appointments. Residents disclosed these sentiments when referring to all clinical training sites, but they more often described dispiriting experiences at low-resource training sites. For example:

*"The [low-*resource hospital] that I'm at is so incredibly busy, it's bursting at the seams with *patients…The actual attendings who take care of the patients never have time to talk to the families. Because they see so many patients…. There's no time left to talk to a group of 20 family members… I mean, they spend eight hours... just trying to see the patients.…I don't see that in* the other hospitals.

-10023, Site 2

Discussion

Exposure to contrasting clinical sites in residency programs ideally provides trainees with an experiential learning opportunity that contributes to achieving a practical and deeper understanding of different cultures, disparities in allocation of resources and social determinants of health. Assessing the impact exposure to diverse domestic clinical settings has on trainees' preparedness and ability to care for socially and economically diverse patients can provide valuable insight into barriers, as well as facilitators to delivering optimal learning and care. Resident reflections on difficult patient experiences help to illuminate the real-world challenges they face as they attempt to adapt to the constantly changing needs of their diverse patient

populations. Through this exploration, residents were able to identify factors which were felt to shape their development such as training in addressing differences in identity, faculty diversity, and significance of exposure to low-resource hospital environments. However, it is noteworthy to uncover how these clinical exposures can overwhelm and disempower some residents previously motivated to work in safety-net communities.

It is conceivable that over the course of training cultural competency skills will develop. However, discerning which strategies are most effective and align best with the residency workflow requires attention. The pace of the emergency department, uncertainty in diagnosis, unfamiliarity with the patients, and innumerable distractions are a recipe for relying on quick judgement, which may be more likely to be influenced by stereotypes or cognitive biases.[19] Medical classes have increased in gender and race/ethnic diversity over time,[20] but racial/ethnic shifts have been marginal when adjusting for population growth.[21] The majority of medical school matriculants are from more affluent backgrounds with higher parental incomes and educational attainment than the patients they serve.[22,23] Despite Emergency Medicine (EM) being the frontlines of healthcare access and service to many diverse populations, the specialty in particular remains predominantly white[24] and male.[25] These differences in lived experiences between provider and patient presented a challenge for residents and their ability to connect and empathize with their minority patients or those in low-resource hospitals.

Phelan et al. found that graduating medical students with more negative racial attitudes were less likely to practice in underserved or minority communities.[26] Suhkera et al. emphasized the importance of physician identity and recognition of implicit biases. However, in their qualitative study, residents described looking toward faculty for guidance, but found an insufficient number of faculty primed to have such conversations.[27] Deliberate conversations related to understanding, managing, and appreciating differences across cultural identities will be essential to developing appropriate skills in trainees. Some residency programs have incorporated case series to prompt these types of race and cultural discussions.[28] Carefully designed curriculum has been developed in other specialties to promote conversation related to racism and health disparities on the wards, and in didactics.[29,30] The unique ED environment may require the development of brief tools to aid residency programs in debriefing common difficult patient

interactions and prompt provider reflection on personal identity differences, especially in low-resource settings.

The composition of the residency program matters. Residents described the value of learning from faculty of different racial/ethnic and religious backgrounds, as well as gender and sexual orientation. Residents commented on how their access to diverse faculty was an essential resource to provide guidance when caring for patients similar to the faculty member. However, the specialty of EM is challenged in recruiting a workforce diverse in race/ethnicity, and gender.[31,32] In addition, from 1988 to 2017, there has been limited shifts in the socioeconomic diversity among the sampling pool of medical school matriculants.[33] Identity diversity within teams has been found to improve overall performance and problem-solving.[34] Diversity is not simply a goal to align the appearance of the workforce to the general population, but our work highlights the educational benefits to residents and faculty in spurring conversation and gaining exposure to diverse identities. Similar findings related to the proportion of racial/ethnic diversity in medical school classes was found to positively influence White students attitudes related to equitable care.[35]

Finally, some residents previously interested in working in low-resource hospital settings, inspired to make a difference in those communities, shared how they leave these training sites disempowered to seek alternate, more affluent practice settings. There are inherent challenges to working in safety-net hospitals related to finance, resources, education, poverty, violence, and other aspects related to social determinants of health (SDH), which are not easy to rectify in a single patient encounter. Many of these issues that plague low-income communities will require more investment of financial and non-financial resources to address social determinants of health. Residents described their frustration with patients in the low-resources settings and the manner in which they failed to access health care "properly." Residents' erosion of empathy for underserved communities may be prevented if they had a deeper understanding of the people, their history, as well as the influence of structural and institutional policies that impact the surrounding environment. Other investigators highlight the importance of trainees developing structural competency (i.e., awareness of social and economic policies, and laws that influence the allocation of health care and community resources) in order to have a better understanding of

the external influences that shape the underserved or minority communities and their health outcomes.[36,37] Prior qualitative work of practicing physicians found that opportunities for self-reflection, positive role-modeling, and positive patient encounters were important in fostering empathy.[38] Residency programs can also look upon the safety-net experiences as an opportunity for innovation. For example, Caldwell et al. examined the acceptability of ED interventions to improve access to family planning services.[39] The challenges faced in safety-net hospitals could be an opportunity for residency programs to consider the value of developing career tracks that promote advocacy, and local engagement with the community to improve health care delivery and health outcomes.

Limitations

This qualitative study focuses on socially sensitive topics of disparities in access to care and health and socio-cultural identity. There was potentially an element of social desirability influencing participants responses as it may be disconcerting for them to acknowledge observing or participating in interactions that resulted in differences in care based on differences in identities. Our study data was gathered to provide context and rich insight into EM residents' experiences training at disparate settings. Two sites were in the Midwest, and one in the South, and may not represent experiences in other regions. Sample selection bias may have played a role, as participants more inclined to speak about diversity and health disparities may have been more likely to participate. Therefore, our data may not reflect the opinions or experiences of residents less comfortable with speaking about these issues. The majority of our respondents were interns, and they may have more frustrating experiences given their early stage in their training.

Conclusions

Emergency Medicine training is considered a core clerkship in many medical schools,[40] and a required rotation for many non-EM specialties. The ED training experience is expected to prepare trainees to deliver acute care, as well as introduce them to the complex challenge of serving a socially and economically diverse patient population. Our work has implications for

EM education, as well as provides valuable insight for other specialties whose training programs utilize diverse training sites. Participants provided a breadth of stories illuminating their real-world awareness and competency with meeting the needs of diverse populations and their access to varied educational outlets to grapple with the disparities they observed. Our study underscores that residency training can be a critical juncture to introduce necessary conversations related to socio-cultural diversity for residents and faculty. These academic and community hospital partnerships may be the only intimate exposure providers have to persons marginalized by race/ethnicity, poverty, sexual orientation, and housing instability. These resident stories provide much needed context to the challenges faced, and the need for educational tools for trainees and faculty. More research is needed to uncover effective strategies to help residents thrive and feel more prepared to care for diverse populations.

1. Cultural Competence Education. Association of American Medical Colleges 2005.

2. Betancourt JR. Cross-cultural Medical Education: Conceptual Approaches and Frameworks for Evaluation. Acad Med 2003;78:560-9.

3. Lie DA, Lee-Rey E, Gomez A, Bereknyei S, Braddock C. Does cultural competency training of health professionals improve patient outcomes? A systematic review and proposed algorithm for future research. J Gen Intern Med 2011;26:317-25.

4. Padela AI. Can you take care of my mother? Reflections on cultural competency and clinical accommodation. Acad Emerg Med 2007;14:275-7.

5. Hobgood C, Sawning S, Bowen J, Savage K. Teaching culturally appropriate care: a review of educational models and methods. Acad Emerg Med 2006;13:1288-95.

6. Krisberg K. Disparities, Cross-Cultural Education Slowly Gaining a Foothold During Residency. Special to AAMC News. Association of American Medical Colleges 2017.

7. Weissman JS, Betancourt J, Campbell EG, et al. Resident physicians' preparedness to provide cross-cultural care. JAMA 2005;294:1058-67.

8. Park ER, Betancourt JR, Miller E, et al. Internal medicine residents' perceptions of cross-cultural training. Barriers, needs, and educational recommendations. J Gen Intern Med 2006;21:476-80.

9. Campbell A, Sullivan M, Sherman R, Magee W. The medical mission and modern cultural competency training. J Am Coll Surg 2011;212:124-9.

10. Emergency Medical Treatment & Labor Act (EMTALA). Centers for Medicare and Medicaid Services. (Accessed October 16, 2018, at https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/.)

11. Young G, Wagner M, Kellermann A, Ellis J, Bouley D. Ambulatory visits to hospital emergency departments. Patterns and reasons for use. 24 Hours in the ED Study Group. JAMA 1996 276:460-5.

12. O'Brien G, Stein M, Zierler S, Shapiro M, O'Sullivan P, Woolard R. Use of the ED as a regular source of care: associated factors beyond lack of health insurance. Ann Emerg Med 1997;30:286-91.

13. Moll J, Krieger P, Moreno-Walton L, et al. The prevalence of lesbian, gay, bisexual, and transgender health education and training in emergency medicine residency programs: what do we know? Acad Emerg Med 2014;21.

14. Coyne IT. Sampling in qualitative research. Purposeful and theoretical sampling; merging or clear boundaries? J Adv Nurs 1997;26:623-30.

15. The Emergency Medicine Milestone Project. In: and TACfGME, Medicine TABoE, eds. Accreditation Council for Graduate Medical Education2015.

16. Morse JM. "Data were saturated . . . ". Qual Health Res 2015;25:587-8.

17. Smith JA, Shinebourne P. Interpretative phenomenological analysis. Washington, DC, US: American Psychological Association; 2012.

18. Underrepresented in Medicine Definition. Association of American Medical Colleges. (Accessed October 11, 2016, at https://www.aamc.org/initiatives/urm/.)

19. Kahneman D. Thinking, Fast and Slow. New York. Farrar, Straus and Giroux; 2011.

20. Diversity in Medicine: Facts and Figures 2019 Executive Summary. Diversity and Inclusion. Association of American Medical Colleges 2019.

21. Lett LA, Murdock HM, Orji WU, Aysola J, Sebro R. Trends in Racial/Ethnic Representation Among US Medical Students. JAMA Netw Open 2019;2:e1910490-e.

22. Jolly P. Diversity of U.S. Medical Students by Parental Income. Association of American Medical Colleges 2008.

23. Grbic D. Diversity of U.S. Medical School Students by Parental Education. Association of American Medical Colleges2010.

24. Table 13. Practice Specialty, Males by Race/Ethnicity, 2018. Association of American Medical Colleges: Association of American Medical Colleges; 2018.

25. Table 1.3. 2017. Active Physicians by Sex and Specialty, 2017. Association of American Medical Colleges: Association of American Medical Colleges; 2017.

555 26. Phelan SM, Burke S, Cunningham B, et al. The Effects of Racism in Medical Education on
556 Students' Decisions to Practice in Underserved or Minority Communities. Acad Med
557 2019;94:1178-89.

558 27. Sukhera J, Wodzinski M, Pim W, Teunissen P, Lingard L, Watling C. Striving While
559 Accepting: Exploring the Relationship Between Identity and Implicit Bias Recognition and
560 Management. Acad Med 2018.

561 28. Perdomo J, Tolliver D, Hsu H, et al. Health Equity Rounds: An Interdisciplinary Case
562 Conference to Address Implicit Bias and Structural Racism for Faculty and Trainees.
563 MedEdPORTAL.

564 29. Brooks Katherine C, Rougas S, George P. When Race Matters on the Wards: Talking
565 About Racial Health Disparities and Racism in the Clinical Setting. MedEdPORTAL 2016;12.

566 30. Schmidt S, Higgins S, George M, Stone A, Bussey-Jones J, Dillard R. An Experiential
567 Resident Module for Understanding Social Determinants of Health at an Academic Safety-Net
568 Hospital. MedEdPORTAL;13.

569 31. Boatright D, Branzetti J, Duong D, et al. Racial and Ethnic Diversity in Academic
570 Emergency Medicine: How Far Have We Come? Next Steps for the Future. AEM Education and
571 Training 2018;2:S31-S9.

572 32. Burkhardt J, DesJardins S, Gruppen L. Diversity in Emergency Medicine: Are We
573 Supporting a Career Interest in Emergency Medicine for Everyone? Ann Emerg Med
574 2019;74:742-50.

575 33. An Updated Look at the Economic Diversity of U.S. Medical Students. Association of
576 American Medical Colleges 2018.

34. Page SE. The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies: Princeton University Press; 2007.

35. Saha S, Guiton G, Wimmers PF, Wilkerson L. Student Body Racial and Ethnic Composition and Diversity-Related Outcomes in US Medical Schools. JAMA 2008;300:1135-45.

36. Neff J, Holmes Seth M, Knight Kelly R, et al. Structural Competency: Curriculum for Medical Students, Residents, and Interprofessional Teams on the Structural Factors That Produce Health Disparities. MedEdPORTAL 2020;16.

37. Salhi BA, Tsai JW, Druck J, Ward-Gaines J, White MH, Lopez BL. Toward Structural Competency in Emergency Medical Education. AEM Education and Training 2020;4:S88-S97.

38. Ahrweiler F, Neumann M, Goldblatt H, Hahn EG, Scheffer C. Determinants of physician empathy during medical education: hypothetical conclusions from an exploratory qualitative survey of practicing physicians. BMC Med Ed 2014;14:122.

39. Caldwell MT, Hambrick N, Vallee P, et al. "They're Doing Their Job": Women's Acceptance of Emergency Department Contraception Counseling. LID - S0196-0644(19)31316-2 [pii] LID - 10.1016/j.annemergmed.2019.10.014 [doi]. Ann Emerg Med 2020.

40. Percentage of Medical Schools with Separate Required Clerkships by Discipline and Academic Year. Curriculum Reports. Association of American Medical Colleges2018-2019.

Table 1. Participant Characteristics

Demographics	Respondents N=24 (%)
Residency Program	
Site 1[a]	N=10 (41.7%)
Site 2[b]	N=8 (33.3%)
Site 3[c]	N=6 (25.0%)
PGY-Level	
PGY-1	N= 10 (41.7%)
PGY-2	N=6 (25.0%)
PGY-3	N=4 (16.7%)
PGY-4	N=4 (16.7%)
Gender	
Female	N=10 (41.7%)
Male	N=14 (58.3%)
URIM status[d]	
Non-URIM	N=20 (83.3%)
URIM	N=4 (16.7%)

[a.] Training sites include an academic medical center, suburban community-based teaching hospital and an inner-city safety-net hospital per program website.

[b.] Training sites include an academic medical center, community-based teaching hospital and an inner-city safety-net hospital per program website.

[c.] Training sites include an academic medical center and safety-net hospital, inner-city community based-teaching hospital, and suburban community-based teaching hospital.

[d] Underrepresented in medicine (URiM) status defined by Association for American Medical Colleges (AAMC) as persons from racial and ethnic backgrounds underrepresented in medicine relative their numbers in the general population.

Table 2. Themes of EM Residents' Experiences with Additional Illustrative Quotes

Themes and Subthemes	Illustrative Quotes
1.Trainees perceived that challenging clinical encounters were attributed to patient factors	
Perceived difference in values	"The mom's like, "We don't have insurance, and we haven't had money to fill out the prescription." This prescription is like, $5.00, really cheap generic medication. Then, in the meantime, the mom had a new iPhone and her nails are done and her hair is nicely weaved. That made me feel, I guess, a little frustrated at the situation. I just don't think we have the same values in what's important. I don't know." -10026, Site 2
Patient behaviors	"There was probably frustration from both ends. I think he was frustrated because he has a very chronic, irreversible problem with his kidney failure. He's probably frustrated because it requires treatment every few days, and he has a tough time physically getting to the treatment, with an access to transportation issue. Then, subsequently, I think members of the team in the ED become frustrated when he shows up with a much more life-threatening, acute problem, where his hyperkalemia and his electrolyte problems could potentially be fatal if they're not addressed quickly enough. I think there's frustration from the treatment team of it seeming like he is neglecting his health care, when there might be an element to that, but there's certainly an element of access to care issues as well." -10015, Site 1
2.Lack of competency in building rapport with diverse patients affected clinical care	
Impact on care	I've had homeless patients who have come into the emergency department,…everybody has a certain level of frustration with those patients, and I understand that, but there's just zero desire to spend time in the room on nursing staff, to talk with them, to see if anything else is going on. Not a whole lot of sympathy….A lot of frustration. A lot of "[physician] take care of this. Do you really want this lab test? Do I really

	need to get blood? Do I really have to take care of them? Do I really have to do this?" That's another undomiciled middle-aged African American male that's getting treated that way, but a drunk white freshman comes in, and everybody thinks it's funny, and they're smiling, and talking to him, and going in and making sure he has everything he needs, which there's really no difference in the resources that both require so—or workup or approach or anything else. There's really no difference, but the drunk white college freshman always gets a lot more leeway. -10017, Site 1
Differences in language	Oftentimes people just get frustrated and go in with their broken Spanish and try to make do, which I don't think is 100 percent a bad thing. I think that if there is gonna be a delay in getting the interpreter or if it's gonna disrupt the flow of the room and you've got a bunch of sick patients, I don't think it's wrong to try to speed things up. It's definitely not as good as being fluent in the language that the patient is speaking and being able to explain things to them and ask them specific questions and whatnot."- 10022, Site 3
3.Training influences clinical preparation and willingness to work in underserved areas	
Impact of varied training sites	"I would say that I generally feel like exposures and experiences with different cultures and more diverse patients is pretty important. I noticed that after spending time working at [these] sites I noticed that I feel like I can connect better culturally, linguistically with patients who are at the different sites. For example, I felt like when I started working at [low-resource hospital] or also when I was interacting with patients who come from a different racial—especially a different racial background than I did at the [academic center] or at [the community hospital] often they would use language or slang that I wouldn't understand." -10011, Site 1

Skills used to communicate with vulnerable populations	“If you're transparent with everyone about why you're doing what you're doing—and this can be even as simple as just saying, "I notice you're here for your belly pain. I know you're worried about it. We're gonna get some labs, and if this does that, then we're gonna do this." It seems like a small thing, but not a lot of people do that. A lot of people go into a room, examine a patient, walk out, and then someone's in there getting blood, and they're wheelin' 'em off to CT, and people don't really know what's goin' on.” -10020, Site 3
Broadening perspective on other cultures	“A lot of times I think the hesitation is to ask a question about something that you're unclear about because it would display your ignorance. I think the opposite is actually true. Where a lot of times, patients are actually open to the fact that their culture is not what is customarily seen every day. They are actually happy to educate you about their preferences, their beliefs, why they do what they do.” -10027, Site 2