An Experiential Community Orientation to Improve Knowledge and Assess Resident Attitudes Toward Poor Patients

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Abstract

Background Future physicians may not be prepared for the challenges of caring for the growing population of poor patients in this country. Given the potential for a socioeconomic "gulf" between physicians and patients and the lack of curricula that address the specific needs of poor patients, resident knowledge about caring for this underserved population is low.

Intervention We created a 2-day Resident Academy orientation, before the start of residency training, to improve community knowledge and address resident attitudes toward poor patients through team-based experiential activities. We collected demographic and satisfaction data through anonymous presurvey and postsurvey *t* tests, and descriptive analysis of the quantitative data were conducted. Qualitative comments from open-ended questions were reviewed, coded, and divided into themes. We also offer information on the cost and replicability of the Academy.

Results Residents rated most components of the Academy as "very good" or "excellent." Satisfaction scores were higher among residents in primary care training programs than among residents in nonprimary care programs for most Academy elements. Qualitative data demonstrated an overall positive effect on resident knowledge and attitudes about community resource availability for underserved patients, and the challenges of poor patients to access high-quality health care.

Conclusions The Resident Academy orientation improved knowledge and attitudes of new residents before the start of residency, and residents were satisfied with the experience. The commitment of institutional leaders is essential for success.

Editor's Note: The online version of the article contains the schedule and elements of the curricular intervention described in this study.

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Introduction

As of 2010, 46.2 million Americans live below the federal poverty line. At 15.1% of the population, this is the highest percentage of people living in poverty since 1993.[1] Poor health outcomes among people living in poverty are well documented.[2,3]

Future physicians may not be prepared for the challenges of caring for poor patients. Overall resident knowledge regarding health access and socioeconomic levels is generally low.[4] Residents have reported feeling uncomfortable caring for underserved patients during residency[5] and do not view underserved settings as desirable places for practice.[6] Residents also have reported that impoverished patients are likely to be more difficult, show up late or miss appointments, care less about their health, and may "take advantage" of the health care system.[7] Physicians-in-training do not represent the socioeconomic diversity of the United States' population; more than two-thirds of matriculating medical students each year come from the 2 highest quintiles of family income.[8] The discordance in socioeconomic status between physicians and patients may contribute to insufficient knowledge and negative attitudes of physicians toward poor patients.[4] Encouraged to provide education in caring

for underserved populations,[9,10] some residency experiences include caring for vulnerable populations; however, most curricula do not specifically address the needs of poor and underserved patients.[11–17]

At the University of Oklahoma School of Community Medicine (OU-SCM), we replaced our traditional resident orientation with an experiential learning activity[18] in community medicine to address the gaps in resident knowledge and attitudes regarding the social determinants of health. In our Resident Academy, lectures about professionalism and cultural competence were augmented with experiences to open residents' minds and hearts to the challenges their patients face every day. Academy elements were designed to stimulate learning at a deep personal and professional level and to help residents develop generalized mental models and emotional or moral processes underlying their service commitments.

What was known

Differences in socioeconomic status between residents and their patients may affect resident knowledge about and attitudes toward caring for poor patients.

What is new

A 2-day orientation program before the start of residency sought to improve knowledge and address resident attitudes toward poor and underserved patients through team-based experiential activities.

Limitations

Small sample; low response rate; and the potential for selection bias.

Bottom line

The orientation program improved incoming residents' knowledge about and attitudes toward poor and underserved patients, and could be replicated in other settings.

Intervention

The Resident Academy

During June 2010, all 66 incoming postgraduate year (PGY)–1 residents from 8 residency programs (emergency medicine, family medicine, internal medicine, internal medicine–pediatrics, obstetrics and gynecology, pediatrics, psychiatry, and surgery) of the OU-SCM were required to participate in 2 days of orientation, before the start of their PGY-1 year. The Academy schedule and elements are provided as online supplemental material.

We collected data through an anonymous online presurvey and postsurvey of all participants. Surveys included questions on demographics, satisfaction with Academy elements, and a series of open-ended questions that allowed for reflection on what was learned or experienced during the Academy. Satisfaction with programmatic elements was measured by using a Likert scale (1 = excellent to 5 = poor). The *t* tests and descriptive analysis of the quantitative data were conducted with SPSS (IBM Corp. Released 2010. IBM SPSS Statistics for Windows, Version 19.0. Armonk, NY: IBM Corp). Satisfaction scores from the postsurvey respondents for each element of the Academy were organized by residents in primary care programs, compared with residents in nonprimary care programs, using *t* tests. Researchers reviewed and coded qualitative comments as positive or negative perceptions, discussed and determined themes, and then reached consensus regarding the final themes presented in this article. The University of Oklahoma Institutional Review Board approved this study.

Resident Academy Components

Cultural Bingo As an ice-breaker activity, "cultural bingo" cards were created by using interesting cultural diversity information from resident personal statements and curricula vitae. Residents asked each other if they had the particular experience or characteristic on the card, and if so, asked about it and collected their signatures in the square. Residents met others in OU-SCM training programs, initiated personal relationships before collaborating on patient care, and set the stage for appreciative inquiry with community interview teams.

Lectures: Orientation to the Community Three brief lectures oriented residents to community medicine; to the history and demographics of Tulsa, Oklahoma; the social determinants of health; and cultural competency.

Community Interviews Teams of residents and faculty from the same discipline traveled together to visit 2 community organizations located in lower socioeconomic status neighborhoods. These included social services agencies, community health centers, nursing homes, rehabilitation centers, and hospices. Teams formulated questions designed to understand the barriers physicians and organizations face in providing health care to the poor, and 1 team member was selected to record a summary of the visit.

Poverty Lunch Teams were challenged to buy a "poverty lunch" in the neighborhoods they visited. Individuals who live below 130% of the federal poverty level in Oklahoma are eligible to receive $200 per month in food assistance through the Supplemental Nutrition Assistance Program.[19] Teams received $2.50 per person to purchase lunch and could not spend more than allotted. All purchases had to be at a place of business within city limits. Teams were not allowed to obtain food or drink from anyone's home or apply discounts as a benefit of employment. Lunch could be consumed at the place of purchase or teams could return to campus to prepare and eat their meals.

TABLE 1 **Resident Satisfaction With Resident Academy Elements**

Program Element	Primary[a]/ Nonprimary[b] Care	n	Mean[c]	SD	*t*	*P*
"Introduction to School of Community Medicine" lecture	Nonprimary care	8	3.38	0.744	4.55	.001
	Primary care	17	2.00	0.612		
"Envisioning a Healthy Community" lecture	Nonprimary care	9	3.44	1.13	2.28	.04
	Primary care	19	2.42	1.071		
"Understanding the Culture of Your Community" lecture	Nonprimary care	9	3.22	1.202	3.53	.005
	Primary care	19	1.68	0.749		
Community interviews	Nonprimary care	9	2.67	1.225	2.68	.02
	Primary care	19	1.47	0.772		
Poverty lunch	Nonprimary care	9	3.11	1.269	2.83	.01
	Primary care	19	1.79	0.855		
Community interview small-group debriefing session	Nonprimary care	9	3.00	1.118	1.79	NS
	Primary care	19	2.21	1.032		
Poverty simulation	Nonprimary care	9	3.67	1.118	4.36	.001
	Primary care	19	1.84	0.834		
Poverty simulation debriefing session	Nonprimary care	9	4.11	0.601	6.88	.000
	Primary care	19	1.89	1.100		

Abbreviation: NS, non-significant.

[a] Primary care: internal medicine, family medicine, pediatrics, internal medicine–pediatrics.
[b] Nonprimary care: psychiatry, surgery, obstetrics-gynecology, emergency medicine.
[c] Ratings based on 5-point Likert scale with excellent = 1, very good = 2, good = 3, fair = 4, poor = 5.

Community Action Poverty Simulation The poverty simulation is an interactive group learning experience designed to promote greater awareness and understanding of poverty.[20] The simulation and debriefing take about 3 hours. Participants assume diverse roles in up to 25 different "family" units. Each low-income "family" must provide basic needs during a simulated month. Participants are challenged to keep their "family" afloat while navigating social service systems and confronting life pressures. The simulation created awareness of the stress of standing in lines, experiencing unhelpful agencies, or taking for granted the importance of credit cards, bank accounts, and reliable transportation.

Debriefing Residents met in groups of 6 with a faculty facilitator to reflect on their community interview experiences with other residents who visited different organizations. This allowed residents to share what they learned from the interviews, providing a vicarious experience of 12 different community agencies for everyone. It also allowed residents to consolidate both the facts and the emotional impact of the visit and how they imagine poverty impacts the health outcomes of their patients.

Results

Forty-seven of 66 residents (71%) completed the presurvey and 28 residents (42%) completed the postsurvey. Residents reported demographics, self-identified political affiliation, training program, previous poverty experience, and future plans for working with poor patients pre survey and post survey. Residents entering primary care programs had significantly higher levels of satisfaction for most elements of the Academy than did nonprimary care residents (TABLE 1).

The community interviews were the highest rated activity with 75% of postsurvey respondents rating the interviews as "very good" or "excellent." The qualitative data also amplified the satisfaction with the community interviews. Residents were asked to describe their thoughts and feelings about the community visits, whether the visits improved their knowledge about community resources for their patients, and whether they felt that these resources improve the health of the community (TABLE 2). The positive responses indicated that there was an increase in community knowledge, especially for residents who did not grow up in the Tulsa area. Some respondents noted that the community visits connected their practice and

TABLE 2 Resident Perceptions of Value of Community Interviews

Positive
Community knowledge
"Both visits improved my knowledge of community resources available. I am not from Tulsa so I did not have any information on what is out there."
"There are a lot of things that I didn't know were available, until after the community visits. It was educational and resourceful for future use."
"Though they were short, they provided an eye-opening experience. They certainly brought my attention to very useful resources that I was unaware of."
Connection to practice and patients
"Going to the resources opened my eyes to some of the things we tell patients about, but didn't really know firsthand."
"I felt the community visits were beneficial to my understanding of my patients. I felt I was able to gain a better appreciation for what people can and cannot access."
Negative
Critique of social services
"The community visits were not unlike my rotations as a medical student in the North East. I think DHS needs to become more involved in newborn cases where the mother is a known addict and not seeking treatment. Also, many resources are not well known to the general public, so the word needs to get out."
"The two places I went made an impact; however, I knew they existed before. When talking with the neonatologist, however, I realized how lax the social services department is in OK. It is not that way in other states."
Translation into practice
"It improved my understanding somewhat, and I believe they help the community. However, I'm still not fully aware of how to access them in my daily practice."

Abbreviations: DHS, Department of Human Services; OK, Oklahoma.

TABLE 3 Resident Perceptions of Caring for Poor Patients After the Poverty Simulation

Positive
Perspective into patient challenges
"It was great!! It allowed us to get an understanding of the time constraints, the demands, the challenges, and the attitudes and stereotyping that occurs towards those in need."
"The simulation did a good job of helping me realize what it would be like to be in that situation. It is hard work to balance your money to pay the bills, buy food, etc, while working full time and trying to run a household. I felt the frustration of having to wait in long lines, not being able to cash my check because I didn't have an account, and the effects of how poverty can breed crime."
"Yes, you don't realize how hard it is to meet with everyone that you need to in order to find the benefits you are entitled to. It also made me aware of how hard it is to look after your children all the time when you are more concerned with where their next meal was going to come from."
Understanding of poverty affecting all
"I think it was reasonable. I tell myself that there is no way I would let my family get to that situation, but I know it can sneak up on people. Even though it was fake, I was stressed and really didn't want to fail."
Created opportunities for further self-reflection and discussion
"I don't think it was a reality but opened my eyes more than anything else could have."
"It didn't really add much to what I already know but it certainly opened doors for thoughts and discussions regarding the issue. The simulation was very interesting."
Negative
Superficial, unlikely to change beliefs
"I felt that it was a waste of time, the thought was good but I feel it will not change how physicians change their practice and biases."
"I understood the point of the simulation and felt that it partially gave an idea of the challenges people living in poverty face, but I also felt that it somewhat trivialized the situation of people living in real poverty by making it artificial."

their patients. The negative responses focused on a critique of social services available and the need for more information about how to incorporate these services into practice.

Residents were asked to reflect upon the poverty simulation, specifically whether the simulation helped them appreciate the daily difficulties of poor people (TABLE 3). Many noted that the simulation provided them with new perspectives into patient challenges, broadened their understanding of the wide impact of poverty, and created opportunities for self-reflection and discussion. Negative comments focused on the perception that the simulation offered only a superficial or artificial experience of poverty and that it would not change physicians' practices or biases.

To capture the salient themes from the Academy, residents answered the question, "In your opinion, what is the greatest barrier that poor people face when it comes to receiving quality health care?" Themes emerged related to access and quality of health care, financial resources, the importance of education, and life circumstances (TABLE 4).

TABLE 4 **Resident Perceptions of Barriers to Quality Health Care for Poor Patients**

Access
"Transportation seems to be one of the biggest problems I have noticed, which therefore means poor access. Clinics are not located on every street corner and thus are not accessible to everyone."
Quality
"Quality health care is simply too expensive and time-consuming."
Financial
"Being able to afford ancillary services like physical therapy, CPAP machines, follow-up appointments. Much disease could be mediated with these services, but patients without insurance cannot afford these measures."
"Cost. Surviving day to day and trying to obtain food and shelter for your family is much more important."
Education
"Education about resources available. Inability to access resources."
"Navigating a complex system."
"They are also undereducated about the need for preventative health care, which clearly hurts their long-term health."
Life circumstance
"I feel it is their life circumstances that make it more difficult. When they can barely hold their head above water, their own personal health gets ignored."
"Health care is simply not a priority when it comes to all of the things that one has to get done with the limited time and money available."
"It's the least of their priorities, and rightly so. They have so many other important things to take care of that they do not have time or money left over to meet their health care needs."

Abbreviation: CPAP, Continuous Positive Airway Pressure.

Cost and Feasibility of the Resident Academy

Meals cost $2342.50, including $193.56 to feed 83 total participants during the poverty lunch. Supplies for name badges, bingo cards, and notetaking material cost $200. The book titled *Wrong Place, Wrong Time*[21] was purchased for each resident for $1272. The poverty simulation required a total of 20 volunteers, consisting of staff and students, to help the faculty facilitator for 3 hours, along with $1995 to purchase the kit, which can be reused indefinitely for future simulations. The 16 faculty members (approximately 1 faculty member for every 4 residents) who led the community interviews and debriefing sessions for 4 hours were all previous participants in 4 hours of similar faculty development activities required by the dean's office at the OU-SCM.

Discussion

In this article, we describe a novel experiential orientation to educate incoming residents at the OU-SCM about their patients and their community. Residents demonstrated improved awareness, knowledge, and attitudes toward the challenges poor patients experience in navigating complex health care and social systems. Overall resident satisfaction for the Academy was very good or excellent; however, most elements of the Academy were more favorably rated by residents in primary care training programs than by residents in nonprimary care programs.

Some residency programs have content curricula on community engagement, health disparities, and underserved populations during residency training.[22,23] However, the Resident Academy at the OU-SCM is unique in that it provides education and experience in these areas before the first day of residency and allows new residents, who have yet to be influenced by the hidden curriculum of residency training, to learn about the community and patients they will care for during training. For future Academies, residents suggested meeting and talking with actual patients who live in poverty to help them better understand the challenges these patients face in obtaining high-quality health care.

Our study is limited by the low response rate to the postsurvey. In addition, 68% of respondents were from primary care training programs and 47% had at least some experience living in poverty, both of which could have led to higher satisfaction scores for the Academy. Although curricula during residency training have been shown to influence resident career choice toward serving the underserved,[22] the impact and outcomes of this curriculum before the start of residency on resident career choice and long-term attitudes toward the poor have not been established. Costs for the Academy were modest; however, institutions may be challenged to find time before the start of internship and faculty who are available from every department to work and travel with each resident team for a half day.

Conclusions

The Resident Academy orientation improved knowledge and attitudes of new residents before the start of residency, and residents were satisfied with the experience. Because residency programs are heterogeneous in the numbers of residents, faculty, and patients, and availability of community resources, it is important that each institution develop its own specific experience that will teach residents about the unique aspects of their patient population and community. Institutional leadership's commitment is essential for success.

References

1 DeNavas-Walt C, Proctor BD, Smith JC. Income, poverty, and health insurance coverage in the United States: 2010. United States Census Bureau. http://www.census.gov/prod/2011pubs/p60-239.pdf. Accessed January 11, 2012.
2 Stringhini S, Sabia S, Shipley M, Brunner E, Nabi H, Kivimaki M, et al. Association of socioeconomic position with health behaviors and mortality. *JAMA*. 2010;303(12):1159–1166.
3 Ayanian JZ, Weissman JS, Schneider EC, Ginsburg JA, Zaslavsky AM. Unmet health needs of uninsured adults in the United States. *JAMA*. 2000;284:2061–2069.
4 Wieland ML, Beckman TJ, Cha SS, Beebe TJ, McDonald FS. Resident physicians' knowledge of underserved patients: a multi-institutional survey. *Mayo Clin Proc*. 2010;85(8):728–733.
5 Weissman JS, Betancourt J, Campbell EG, Park ER, Kim M, Clarridge B, et al. Resident physicians' preparedness to provide cross-cultural care. *JAMA*. 2005;294(9):1058–1067.
6 Weissman JS, Campbell EG, Gokhale M, Blumenthal D. Residents' preferences and preparation for caring for underserved populations. *J Urban Health*. 2001;78(3):535–549.
7 Price JH, Desmond SM, Snyder FF, Kimmel SR. Perceptions of family practice residents regarding health care and poor patients. *J Fam Prac*. 1988;27(6):615–621.
8 Jolly P. Diversity of U.S. medical students by parental income. AAMC Web site. *Analysis in Brief*. 2008;8(1). https://www.aamc.org/download/102338/data/aibvol8no1.pdf. Accessed January 11, 2012.
9 Meyers FJ, Weinberger SE, Fitzgibbons JP, Glassroth J, Duffy FD, Clayton CP. Redesigning residency training in internal medicine: the consensus report of the Alliance for Academic Internal Medicine Education Redesign Task Force. *Acad Med*. 2007;82:1211–1219.
10 Fitzgibbons JP, Bordley DR, Berkowitz LR, Miller BW, Henderson MC. Redesigning residency education in internal medicine: a position paper from the Association of Program Directors in Internal Medicine. *Ann Intern Med*. 2006;144:920–926.
11 McGarry KA, Clarke JG, Landau C, Cyr MG. Caring for vulnerable populations: curricula in U.S. internal medicine residencies. *J Homosex*. 2008;54(3):225–232.
12 Palfrey JS, Hametz P, Grason H, McCaskill QE, Scott G, Chi GW. Educating the next generation of pediatricians in urban health care: the Anne E. Dyson Community Pediatrics Training Initiative. *Acad Med*. 2004;79(12):1184–1191.
13 McDougle L. Matching community need with physician training: the OSU Urban Family Medicine Program. *J Natl Med Assoc*. 2006;98(5):687–689.
14 Jacobs EA, Kohrman C, Lemon M, Vickers DL. Teaching physicians-in-training to address racial disparities in health: a hospital-community partnership. *Public Health Rep*. 2003;118(4):349–356.
15 Hufford L, West DC, Paterniti DA, Pan RJ. Community-based advocacy training: applying asset-based community development in resident education. *Acad Med*. 2009;84(6):765–770.
16 Strelnick AH, Swiderski D, Fornari A, Gorski V, Korin E, Ozuah P, et al. The residency program in social medicine of Montefiore Medical Center: 37 years of mission-driven, interdisciplinary training in primary care, population health, and social medicine. *Acad Med*. 2008;83(4):378–389.
17 Furin J, Farmer P, Wolf M, Levy B, Judd A, Paternek M, et al. A novel training model to address health problems in poor and underserved populations. *J Health Care Poor Underserved*. 2006;17(1):17–24.
18 Kolb D. *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, NJ: Prentice Hall PTR; 1984.
19 Oklahoma Department of Human Services. Supplemental Nutrition Assistance Program. http://www.okdhs.org/programsandservices/food/snap/docs/fsreqs.htm. Accessed January 11, 2012.
20 Missouri Association for Community Action. Community action poverty simulation. http://communityaction.org/Poverty%20Simulation.aspx. Accessed January 11, 2012.
21 Rich JA. *Wrong Place, Wrong Time: Trauma and Violence in the Lives of Young Black Men*. Baltimore, MD: The Johns Hopkins University Press; 2009.
22 Fancher TL, Keenan C, Meltvedt C, Stocker T, Harris T, Morfin J, et al. An academic-community partnership to improve care for the underserved. *Acad Med*. 2011;86:252–258.
23 Gregg J, Solotaroff R, Amann T, Michael Y, Bowen J. Health and disease in context: a community-based social medicine curriculum. *Acad Med*. 2008;83:14–19.