Social Determinants of Health: A Missing Link in Emergency Medicine Training

Daniel J. Axelson, MD, MPH, Matthew J. Stull, MD, and Wendy C. Coates, MD

ABSTRACT

The health of a population depends upon several factors, including disease, public health initiatives, and the social determinants of health (SDH). These factors often converge in the emergency department (ED) where the impact of social conditions such as homelessness, low-literacy, and poverty lead to recidivism and may contribute to provider burnout. Inclusion of SDH topics in EM residency curricula can provide needed background information and effective strategies for coping with these patients in the clinical setting. Exercises that simulate poverty, the development of and familiarity with meaningful community partnerships, and inclusion of SDH topics in standard ED conferences (e.g., mortality and morbidity conference) can promote understanding and outline a detailed plan for treating patients facing these challenges. By incorporating educational interventions aimed at identifying and intervening on issues of SDH in the ED we may be able to better serve those patients who need us the most.

It has been more than 15 years since Sir Michael Marmot published his social determinants of health (SDH)[1] and demonstrated that the health of populations depends directly on a society's economic and social organization. His work codified public health practitioners' approach to population health, shining the focus on how issues such as homelessness, social support, and economics influence biologic disease. Initially, many believed that treating the social contributors to medical illness was outside the purview of the patient visit. Increasingly, medical professionals and the lay public alike are recognizing the need to intervene on SDH in daily patient care.[2,3] Perhaps nowhere is this need more acute than in the emergency department (ED), where race, sex, identity, illness, and policy converge. The very nature of EM as a 24/7 clinical specialty invites social contributions to medical pathology, as many breakdowns in social functioning occur outside of regular clinic hours. We know that various SDH contribute specifically to ED recidivism, including economic disadvantage, low health literacy, and many others.[4,5] Hwang et al.[6] recently found that homeless individuals have greater than eight times the incidence of ED visits than their age- and sex-matched, non-homeless counterparts. Further, we know that physician burnout is directly correlated to a personal sense of disempowerment to effect change in the work environment.[7] As emergency physicians may not be trained to identify and intervene on SDH, they can experience a sense of futility in their daily practice, which may be an underrecognized cause of burnout.

Recently, Westerhaus and colleagues[8] advocated for incorporating a social perspective into all medical education. By inviting this change, the authors hoped to foster a group of diverse health care professionals who could practice socially conscientious medicine within any specialty, accounting for and intervening on nonbiologic contributors to illness. EM, in particular, is poised to take ownership of this call to include the clinical and systemic impacts that SDH play into our curriculum. While representing less than 5% of the

From the Department of Emergency Medicine, Henry Ford Hospital (DJA), Detroit, MI; the Departments of Emergency Medicine & Anesthesiology, University Hospitals-Cleveland Medical Center (MJS), Cleveland, OH; Case Western Reserve University School of Medicine (MJS), Cleveland, OH; Department of Emergency Medicine, Harbor-UCLA (WCC), Torrance, CA; and the University of California, Los Angeles, David Geffen School of Medicine (WCC), Los Angeles, CA.
Received May 26, 2017; revision received July 13, 2017; accepted August 8, 2017.
The authors have no relevant financial information or potential conflicts to disclose.
Supervising Editor: Susan Promes, MD, FACEP.
Address for correspondence and reprints: Daniel Axelson, MD, MPH; e-mail: d.axelson@gmail.com
AEM EDUCATION AND TRAINING 2018;2:66–68.

ISSN 2472-5390

doi: 10.1002/aet2.10056

physician workforce, emergency providers handle more than 25% of all acute care administered in the United States and more than 50% of acute care administered to the uninsured.[9] The 2016 ABEM Model of Clinical Practice[10] does acknowledge culturally sensitive communication skills and general advocacy around health care disparities as key subsets to the competencies of communication skills and professionalism for emergency providers, respectively. Using this as a starting point, we believe that updating EM residency training to include broad, community-based education would afford our specialty an opportunity to put into action a network of trained, socially competent emergency physicians.

We advocate for a social medicine curriculum that enables the EM resident to differentiate between patient disease (the breakdown of biologic structure and function) and illness (the greater subjective impact that the disease has on the patient).[11] A first step to accomplish this is to move SDH from a "hidden curriculum" to one that is represented by formal educational goals and objectives.[12] Developing community partnerships with organizations and agencies and familiarizing emergency physicians and ED social workers with them is critical. Important partnerships might include community food banks, homeless shelters, domestic violence resource centers, substance abuse and rehabilitation programs, and routine free or

Table 1
Impact of SDH in the ED

SDH	Commonly Encountered ED Patient Scenario	Systemic Impact in the ED	Opportunities for Educational Interventions
Housing and homelessness	A "well-known patient to the ED" regularly presents with a recurrent symptom that may require more extensive workup (i.e., chest pain) who is seemingly quite satisfied upon rooming.	• Increased health care costs due to expensive, unnecessary workup. • Reinforcement of cognitive biases that may lead to missing potential treatable pathologies.	• Connect homelessness as a risk factor to specific diseases. • Include a list of housing or shelter resources in the discharge instructions through "drop-in" text (i.e., dot phrases). • Invite a homeless individual to conference for a first-hand account of the experience.
Food insecurity	A patient presents with a minor complaint and requests multiple servings of food in the ED for themselves and family members accompanying them.	• Increased recidivism due to lack of access to food. • Increased health care costs due to unnecessary workup. • Provider frustration for being pulled away from potentially more serious cases	• Include lists of local food banks/shelters in discharge instructions. • Social work referral for application to supplemental nutrition assistance program.
Low literacy	A patient seen previously in the ED for a simple complaint is provided with discharge instructions to remedy the problem and now returns with worsening condition because he or she did not follow the initial instructions.	• Increased recidivism due to nonadherence to written discharge regimens. • Frustration by ED provider who feels like the patient did not follow instructions.	• Ensuring that discharge instructions are written at low literacy level. • Addition of verbal explanation of discharge instructions with teach back for understanding by patient. • Referral to local literacy advocacy organizations. • Implement health literacy screenings at registration.
Economic insecurity	Upon discharge of a patient the provider is asked for additional prescriptions for common over-the-counter medications.	• Provider frustration for being pulled away from other tasks for perceived ineffectual reasons. • Increased recidivism due to inability to afford the prescribed treatment.	• Firsthand accounts by patients of impacts of health care costs on their budgets. • Use of applications/websites that advertise discounted drug prices (i.e., GoodRx). • Familiarity with local pharmacy policies that allow for reduced costs for those with economic hardships. • Simulations involving immersion into patient experiences of poverty and impacts on their health.
Neighborhood and access to safety	A young patient is brought to the ED after sustaining a gunshot wound to the lower leg without significant neurovascular compromise. He or she mentions that this is not his or her first presentation for similar injury.	• Increased recidivism with potentially increasing morbidity or mortality on subsequent visits. • Provider distress to learn that a young patient he or she recently treated suffered potentially more serious harm from another incident related to the same activity.	• Screening, brief intervention, and referral to treatment (SBIRT) to local community violence prevention programs. • Incorporate suicide screening for those with access to firearms. • Include the case in M&M for discussion of both clinical management pearls and opportunities for social interventions.

SDH = social determinants of health.

low-cost health care clinics. Patient-centered programs that involve input from the community can lead to improved health outcomes.[13]

One strategy is to introduce SDH to EM residents during their initial orientation period. For example, residents could participate in a simulated poverty immersion experience that demonstrates the challenge of daily life for their patients.[14] Another intervention could take the form of a community tour of homeless (and other) shelters, food banks, addiction services, and outpatient clinics. This would bring EM residents face to face with interdisciplinary partners in the community who are also combating SDH. Residents, social workers, agency staff, and even patient representatives could share knowledge, ideas, and resources and outline an explicit plan by which ED patients requiring services could best obtain them. Both of these could also serve as powerful team-building exercises for residency classes and would enable EM physicians to make targeted referrals for any given social condition. Such communication could potentially improve follow-up of patients to their appropriate disposition within the community and reduce recidivism to the ED.

Explicitly encouraging residents to be mindful of social elements affecting their patients' diseases is an active process and requires frequent reminders throughout training. Including SDH in routine conference sessions, such as mortality and morbidity conference can help integrate the topic. Additional systematic strategies might include simplifying standard discharge instructions for low-literacy patients or listing community resources for at-risk patients in preprinted discharge instructions. Such tools empower providers of all training levels to begin an intervention that may influence a patient's outcome without ever writing a prescription. Table 1 summarizes common situations that may relate to the SDH and possible educational opportunities for intervention.

We recognize that many patients have social situations that contribute to their illness and that physicians may be frustrated by the resulting recidivism and their lack of knowledge of community resources and how to access them. By incorporating educational interventions aimed at identifying and intervening on issues of SDH in the ED we may be able to better serve those patients who need us the most.

References

1. Marmot M, Wilkinson R. Social Determinants of Health. New York: Oxford University Press, 1999.
2. Anderson E, Lippert S, Newberry J, et al. Addressing social determinants of health from the emergency department through social emergency medicine. West J Emerg Med 2016;17:487–9.
3. Neel J. Poll Explores Our Perception of How Factors Large and Small Shape People's Health. 2015. Available at: http://www.npr.org/sections/health-shots/2015/03/02/388994897/poll-finds-factors-large-and-small-shape-peoples-health?sc=tw. Accessed Jul 2, 2017.
4. Chambers C, Chiu S, Katic M, et al. High utilizers of emergency health services in a population-based cohort of homeless adults. Am J Public Health 2013;103 Suppl 2: S302–10.
5. Balakrishnan MP, Herndon JB, Zhang J, et al. The association of health literacy with preventable emergency department visits: a cross-sectional study. Acad Emerg Med 2017 Jun 24. doi: 10.111/acem.13244. [Epub ahead of print]
6. Hwang S, Chambers C, Chiu S, et al. A comprehensive assessment of health care utilization among homeless adults under a system of universal health insurance. Am J Public Health 2013;103:S294–301.
7. Goldberg R, Boss R, Chan L, et al. Burnout and its correlates in emergency physicians: four years' experience with a wellness booth. Acad Emerg Med 1996;3:1156–64.
8. Westerhaus M, Finnegan A, Haidar M, et al. The necessity of social medicine in medical education. Acad Med 2015;90:565–8.
9. Pitts S, Carrier E, Rich E, Kellermann A. Where Americans get acute care: increasingly, it's not at their doctor's office. Health Aff (Millwood). 2010;29(9):1620–9.
10. Councilman FL, Babu K, Edens MA, et al. The 2016 Model of the Clinical Practice of Emergency Medicine. J Emerg Med 2017;52:846–9.
11. Helman CG. Disease versus illness in general practice. J R Coll Gen Pract 1982;31:548–52.
12. Hafferty FW, Franks R. The hidden curriculum, ethics, teaching and the structure of medical education. Acad Med 1994;69:861–71.
13. Patient-Centered Outcomes Research Institute. Available at: https://www.pcori.org/. Accessed Jul 11, 2017.
14. The Community Action Poverty Simulation. Available at: http://www.povertysimulation.net. Accessed on Jul 11, 2017.