Children's Hospital of Philadelphia
PolicyLab

Can stress in the ER increase unconscious racial bias?

Health Equity

Date Posted:

May 16, 2016

Picture a crowded pediatric emergency department. The waiting room is packed. All the rooms are filled so extra beds line the hallways. Parents are anxious as they sit by their sick or injured children.

This can be a stressful environment for the health care providers as well as the parents. For each patient, physicians must make multiple time-sensitive decisions like whether to do blood work, take X-rays or give pain medicine, and whether the patient should be admitted to the hospital or sent home. In some cases, these doctors are nearing the end of a 12-hour shift in which they've had little time to eat a meal or drink enough water.

At times like these, physicians' decision-making can be affected without their even realizing it. After seeing this firsthand as a health care disparities researcher and a pediatric emergency medicine physician, I was interested in the following research question: Do health care providers have more racial bias at the end of a busy shift in the emergency department (ED)?

To answer this question, my research team performed a study in 2013 to examine how stress impacts implicit racial bias among resident physicians working in a large urban pediatric ED in Western Pennsylvania. Implicit racial bias refers to unconscious attitudes toward a person or group of people that lie below the surface but may still influence behaviors such as perceptions about patients or decisions about patient care. My research team used the Implicit Association Test (IAT) to measure implicit bias before and after an ED shift. The IAT test, which was created by scientists at Harvard University, the University of Virginia and the University of Washington, measures the strength of associations between concepts (e.g. black people, gay people) and evaluations (e.g. good, bad) or stereotypes (e.g. athletic, clumsy) outside of one's conscious awareness and control. We compared differences in Race IAT scores before and after shifts and examined if cognitive stressors that resident physicians experienced during the shift were associated with higher levels of post-shift bias.

Consistent with studies examining implicit bias among other types of health care providers, we found that the majority of resident physicians in the ED had implicit pro-white/anti-black bias. But for residents who worked when the ED was extremely busy to severely overcrowded, there was a significant increase in pre- to post-shift IAT scores indicating greater pro-white implicit bias following a shift. This trend continued for residents who were responsible for more than 10 patients during their shift. In other words, increased stress is associated with greater implicit racial bias.

Although not directly measured in this study, our findings may have implications for how implicit racial bias could impact racial and ethnic disparities in care. For example, how might implicit bias impact how physicians

communicate with patients and their families, how quickly a patient is seen by a physician, what type of pain medication is prescribed, or who is admitted to the hospital and who is sent home? Further research is needed to investigate how implicit bias affects patient care in the ED.

So how can implicit racial bias and its impact on patient care be reduced among pediatric providers?

Our findings suggest that strategies should be created to prevent overcrowding and reduce the number of patients per provider. While this study was not conducted at The Children's Hospital of Philadelphia (CHOP), where I am currently a faculty member, the findings may be applicable to CHOP and other busy general and pediatric EDs. The CHOP ED team has several strategies to try to prevent overcrowding during high volume seasons such as winter and the flu season. For example, a team of providers treats some urgent care patients in one of the clinics after hours. We also have a special team that sees patients in the triage area and can also start care for other patients while waiting for a room to become available in the main ED. This team can order diagnostic testing and give pain medications for patients with suspected appendicitis or fractures. These strategies help us provide more timely and efficient care to our patients and reduce overcrowding.

Another strategy that may help reduce the impact of bias on patient care is the use of clinical effectiveness guidelines. At CHOP, we have nearly 50 clinical pathways, which outline specific steps for how to care for a patient with a specific chief complaint or diagnosis based on the best available evidence in the literature. These pathways help standardize patient management, which can reduce variability in care by non-clinical factors such as race and ethnicity.

While encouraging residents to eat and drink during their shifts may not seem like much, self-care helps improve patient care. Keeping energy up and staying hydrated can help physicians better cope with the stress of working in an ED, which may reduce their implicit racial bias.

Research has also shown that having positive encounters with black faculty members and exposure to positive images of blacks can help counter automatic stereotyping and reduce implicit bias. Therefore, polices to improve racial and ethnic diversity in academic medicine represent an important next step to reduce implicit bias and its impact on health care.

Most health care professionals strive to achieve the best outcome for all of their patients, but that doesn't make us immune from biases. All clinicians should be aware of their implicit biases. Residents and the providers who train and educate them in the ED should also be aware of how stress, including ED overcrowding and a high number of patients per provider, may exacerbate their biases and ultimately lead to racial disparities in care.
