

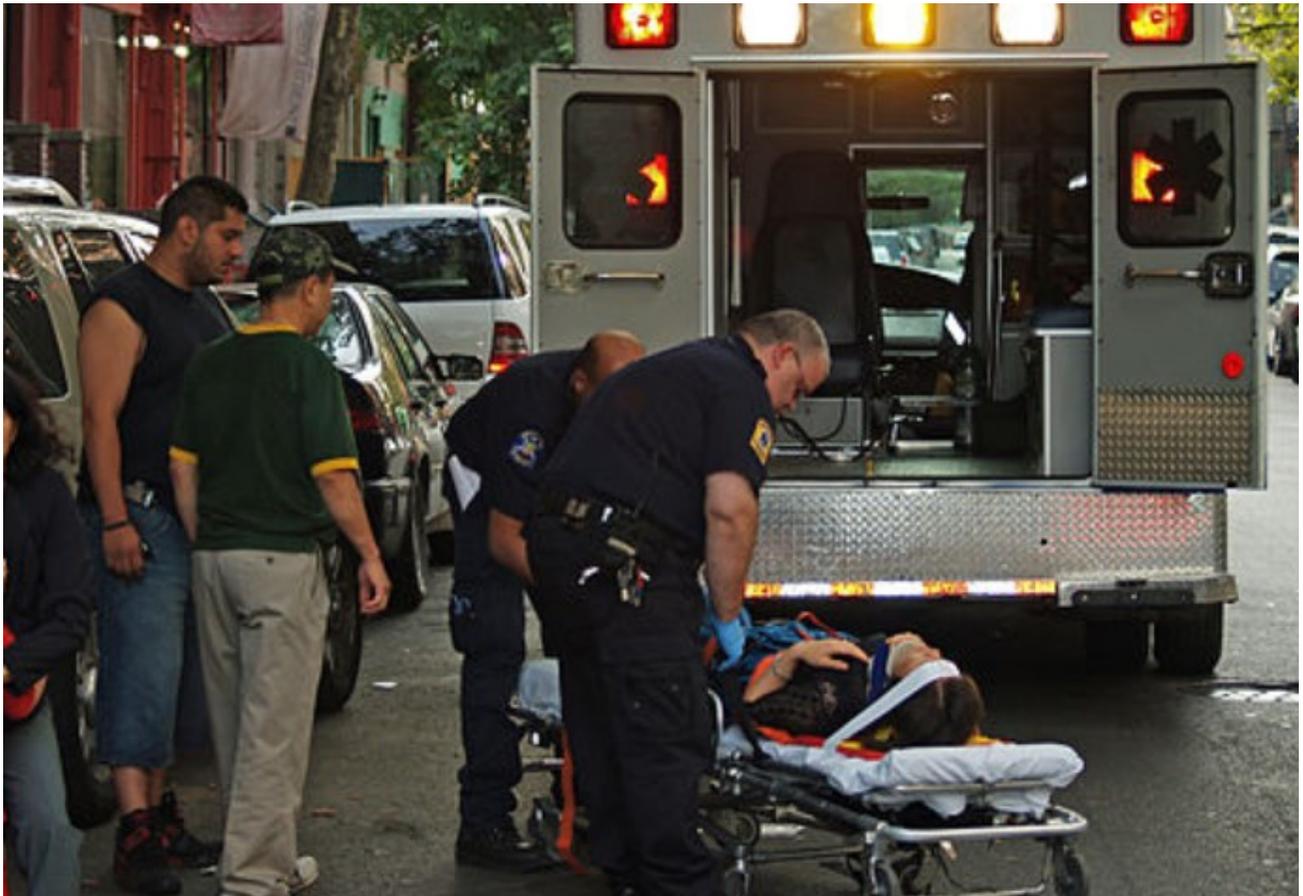
Grand Rounds: Are There Disparities in EMS and Healthcare?

[emsworld.com/article/1225340/grand-rounds-are-there-bias-disparities-ems-and-healthcare](https://www.emsworld.com/article/1225340/grand-rounds-are-there-bias-disparities-ems-and-healthcare)

Community

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Grand Rounds is a monthly blog series developed by EMS World and FlightBridgeED that features top EMS medical directors exploring the intricacies of critical care and other important issues in EMS practice. In this installment the associate medical director of FlightBridgeED's Podcast Division, Ritu Sahni, MD, reviews bias and treatment disparities in EMS.

The topics of bias and equity have come to the forefront in 2020, and although it has been a politically charged discussion, it is important to take an internal look at EMS and healthcare as a whole. The fundamental question is this: Are there racial, ethnic, and/or socioeconomic disparities in EMS?



Does Bias Exist in EMS?

The issue has been studied in EMS, and we know bias exists. What do we mean by *bias*? Bias implies there is a difference in care between two specific groups. Bias can be by gender, race, ethnicity, socioeconomic class, or any categorization. It is not a measure of intent or attitude; it is a measure of outcome.

Most recently, Oregon Tech's Jamie Kennel and colleagues evaluated more than 25,000 charts in which the primary impression was related to a traumatic injury. They evaluated whether a pain assessment was performed and whether there was documented administration of pain medication. They then compared this information to the independent variables of race and ethnicity. They also attempted to control for social and demographic variables.

What did they find? Pain assessments were performed equally across all groups, but a statistically significantly higher proportion of white patients (20%) received pain medications than all ethnic minorities. Black patients only received pain medications 14% of the time, even though they reported higher mean pain scores.¹ A smaller 2013 study that looked at blunt trauma patients found similar results: Black patients were about half as likely to receive pain medications as white patients.²

Management of pain has also been looked at in other settings, and similar bias persists. Additionally, different outcomes have been measured and further evidence of bias identified. Studies have repeatedly demonstrated that both race and socioeconomic status affect cardiac arrest outcomes and bystander CPR likelihood. One review in Memphis found that although bystander CPR has increased significantly in the last 25 years, white patients were 70% more likely to receive bystander compressions than Black patients. The review also found that cardiac arrests in areas of significant economic hardship were about 30% less likely to receive bystander compressions.³

This also extends to pediatric cardiac arrest, as an extensive review of the Cardiac Arrest Registry to Enhance Survival (CARES) data set determined. The authors evaluated 7,086 pediatric (under age 18) cardiac arrests that occurred over five years. Once again they found bystander CPR occurred more frequently in white victims (56.9%) vs. Black

(39.3%) and Hispanic (46.6%). The authors also found that neighborhoods with lower socioeconomic status had lower bystander CPR rates and better neurologically intact survival, although the racial disparity still existed within each type of community.⁴

In short, EMS reflects the challenges of the entire healthcare system and society as a whole. The data strongly suggests that biases exist in the provision of EMS care.

Understanding Implicit Bias

When the Kennel article was published, it created news in the EMS community, and lay press articles followed. Since the study was reported in Oregon, several local news outlets sought comment from EMS providers. Providers were, understandably, somewhat defensive. There were comments such as, “I’ve never treated anybody differently, regardless,” and the idea that “Everyone is the same in the back of the ambulance.”⁵ Unfortunately, the data states otherwise, and the primary source of this disconnect is likely to be the concept of implicit bias.

Implicit bias is defined as “thoughts and feelings that often exist outside conscious awareness and thus are difficult to consciously acknowledge and control.”⁶ This means although you may have some explicit goals (e.g., to treat everyone equally), there are unconscious biases that still cause you to deliver care that is not impartial.

Although implicit bias research in healthcare is relatively new, there is a standardized assessment called the Implicit Association Test. Multiple studies have already been completed to try to measure implicit bias in the healthcare workforce. It has been found, not surprisingly, that implicit bias exists in physicians and nurses. Investigators also found bias existed at roughly the same level as the general population.⁷ This is not surprising, as bias training and understanding has not been a standard part of the medical curriculum. It does fundamentally mean that even those who have the best intentions can make snap judgments that result in inequitable care. The bad news is that it is unconscious; the good news is that it can be measured and identified.

In addition to implicit bias, there are likely broader systemic issues that impact emergency care. Many studies have demonstrated that patients from racial and ethnic minority groups have greater distrust in the healthcare system.⁸ This may impact how early and often acute patients enter that system. For instance, data shows racial and ethnic minority patients are much less likely to utilize EMS for an acute stroke.⁹ Patients with language barriers get suboptimal care, and some EMS systems may not have interpreter services.⁸

This combination of implicit bias and systemic factors leads to suboptimal care and outcomes for certain patient groups.

What Can Be Done?

The field is still young, and there are no randomized controlled trials for guidance, but there are some possible solutions:

As Seattle resuscitation legend Mickey Eisenberg always says, measure and improve. It is impossible to know if your EMS system has bias without measuring. Reproduce the Kennel study with your data. Work with your ePCR vendor to create measures around health equity. Just like any other clinical issue, create an improvement plan when a problem is identified.

Acknowledge and identify implicit bias in your agency. Implicit bias is unconscious. Most EMS providers are not explicitly “racist.” However, recognizing that we all have biases hardwired into us is a crucial step. Providing training around the implicit bias will create understanding, hopefully without creating blame.

Acknowledge and identify implicit bias in yourself. Examine situations in which unrecognized biases may have played a role. The Implicit Association Test is publicly available [here](#). You can identify biases regarding race, ethnicity, gender, etc. Learning where your own biases exist will create understanding moving forward.

Look for systemic fixes. A “just culture” EMS service does not assign personal blame when errors occur. Instead we try to find system fixes wherever possible. The same is true with trying to fix bias in healthcare. For example, it turns out dispatcher-assisted “telephone” CPR seems to lead to relatively equal rates of bystander CPR.¹⁰ This is another reason to ensure that your EMS system provides this service. Identify areas of low EMS usage and consider outreach to the community. Additionally, ensure your EMS providers have access to appropriate medical interpretative services.

As EMS and public health providers, we have a responsibility to improve health in our communities. Identifying potential disparities in our systems is a critical component of that goal. It can and should be done in a manner like any other improvement in the system. It should be measured, and a combination of education and system fixes implemented.

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