Racial Bias Lurking in Patient Records

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Medical jargon is rife with judgmental language about patients. Here's a recent sampling from medical notes in my inbox:

- "Mr. X complained of shortness of breath." (He wasn't complaining. He was telling you, his doctor, about this symptom because it's your job to help him with it.)

- "Ms. Y denied chest pain." (She didn't have chest pain. Full stop.)

- "The patient eloped from the emergency department." (Seriously?)

A recent Health Affairs study puts numbers to this problem and finds worrisome (but sadly not surprising) evidence of racial bias.

Researchers Michael Sun, Tomasz Oliwa, Monica Peek and Elizabeth Tung used machine learning to examine roughly 40,000 medical notes for about 18,000 patients at a large Chicago academic medical center and identify potentially negative descriptors like "refused," "noncompliant" and "agitated." They found 8.2% of patients in their sample had at least one negative descriptor. Compared to white patients with similar sociodemographic and health characteristics, Black patients had 2.5 times the odds of having at least one negative descriptor in their notes. Patients on Medicaid or Medicare also had higher odds of negative descriptors than those with commercial insurance, and the same was true for unmarried patients compared to married ones.

On the flip side, notes on outpatient visits were less likely to include negative descriptors compared to notes on emergency department visits or hospitalizations. This makes some sense given biases often arise from quick first impressions, and outpatient doctors like myself are more likely to get to know our patients over time. Strikingly, notes written in pandemic times (versus pre-pandemic) also had lower odds of including negative statements. Might this reflect positive changes in response to our national reckoning with bias in health care? While the authors didn't look specifically at interactions between the pandemic and race, it's worth further research.

This paper only focused on one academic medical center, but another recent study found similar results. Taken together, this important work quantifies manifestations of structural and interpersonal racism and other biases that can have tangible impacts. Clinicians read each others' notes and may even copy and paste portions into their own notes, so these negative statements reverberate and influence future readers – whether or not they carry the same biases. And patients on the receiving end of these biases face real harms.

So what can we do? For one, health systems and professional schools might proactively train clinicians on implicit bias and use of patient-first language. Each time we open the electronic health record, we should imagine our patients as readers (many of them are) and think twice about our language and its impact.

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