



Artificial Intelligence (AI) and Traditional Identification of Workplace Violence Directed at Healthcare Providers

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Hospitals are often where people go on their worst days, and sometimes patients and their caregivers behave in ways they wouldn't normally do if the circumstances were different. Sometimes they direct their frustrations at hospital staff in ways that are counterproductive and, occasionally, dangerous. The scourge of workplace violence directed at healthcare workers has reached [alarming levels](#), including some recent high-profile murders of healthcare workers by patients. Regardless of whether there is actual physical violence, nobody (including healthcare workers) should have to deal with such abuse while trying to provide care. To address this most important topic, this issue of *Pediatrics* includes three articles (a regular article, a research brief, and a commentary) that address, in different ways, workplace violence directed at healthcare workers.

Dr. Adrienne DePorre from Children's Mercy-Kansas City and colleagues review how often electronic behavioral disruption forms (documenting abuse of healthcare workers) were completed between 2017 and 2021 in patient care sites (hospitals, emergency departments [EDs], urgent care, and ambulatory clinics) in a large Midwestern city (<https://doi.org/10.1542/peds.2023-065041>). There was an overall increase in violent events over time in all locations (except for EDs, for which no change was observed). The most often (87%) reported events were non-physical (intimidation, threatening behavior, or verbal abuse), with the remainder being physical. Of note, nearly two-thirds (66.2%) of those violent events were perpetrated by people who were not themselves the patient. One shortcoming of this eye-opening study is that it relied on self-reported data.

Dr. Mark Waltzman from Boston Children's Hospital and colleagues, operating under the premise that healthcare-associated violence is underreported, used a novel, artificial intelligence (AI)-based natural language processing tool to surveil for instances of healthcare-associated violence among nearly 71,000 nursing hand-off notes for pediatric inpatients in a major New England city during the last 6 months of 2022 ([10.1542/peds.2023-063059](#)). The authors identified twice as many (15) instances of such violence using nursing notes (only 7 had been formally documented), demonstrating proof of concept and supporting the overall notion that such violence is often underreported. While having similar limitations (reliance on self-reported data) as the aforementioned study, there is the additional limitation of not being able to determine what types of events constituted the violence. However, use of the machine learning features of AI suggest that this system will only improve the ability to identify more nuanced aspects and instances of such violence.

In addition to the baseline stressors of working in healthcare (particularly in EDs), violence (which can result in serious and sometimes fatal injuries) and the associated threats have likely contributed to significant and understandable burnout among hospital staff. Dr. Philip Ozuah's commentary offers a personal take on both a jarring encounter with violent threats and steps his institution has taken to mitigate the risk of people acting on such threats ([10.1542/peds.2024-066108](#)). In addition to institutional interventions (e.g., installation of weapons detection systems), there are now laws that hold accountable those patients and families who cross the line in harming hospital staff. At least [32 states](#) have made it a felony to abuse healthcare staff.

Often, but certainly not always, keeping an open dialogue using de-escalatory language can go a long way to reduce the risk of violence to hospital staff. These 3 articles advance an ongoing and much-needed conversation about the identification and management of workplace violence targeting healthcare workers.