the ways in which we reiterate an unjust and unfortunately common process.

"Man dies after medical incident during police interaction," read a press release from the Minneapolis Police Department on May 25, 2020.[1] An initial autopsy described his history of heart disease, substance-use disorder, and sickle cell trait. Without Darnella Frazier's bravery, George Floyd's story might have ended here. Instead, Darnella Frazier's video showed that despite having underlying health issues, George Floyd died because Derek Chauvin kneeled on his neck for 9 minutes and 29 seconds.

Police violence against Black Americans is not new, nor is the involvement of our health-care system in perpetuating this violence.[2] However, just as body cameras and mobile phone videos illuminated this problem, we must also shed light on physician complicity.

A prime example of this problem is seen in sickle cell trait. Designation of sickle cell trait as a cause of in-custody death has been documented internationally.[3] *The New York Times* reported that the deaths in custody of at least 45 Black people were falsely attributed to sickle cell trait in the past 25 years.[4]

Unlike sickle cell anaemia, which is a severe life-limiting illness, sickle cell trait is almost entirely benign. People with sickle cell trait have a higher incidence of renal medullary carcinoma and, under very extreme conditions, rhabdomyolysis and exertional collapse can occur.[5]

It is therefore problematic that forensic pathologists continue to document sickle cell trait in cases of in-custody death. Such information does not elucidate the cause of death but rather creates plausible deniability for law enforcement officials. As stated by the American Society of Hematology, sickle cell trait is not a medically sound explanation for death in custody.[6]

As physicians, we must uphold ethical standards and combat issues impacting our patients' health, regardless of the cause. Sickle cell trait is not killing our patients, but racism and apathy are.

We declare no competing interests.

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From nurse-to-patient ratio to optimal team composition

We congratulate Matthew D McHugh and colleagues[1] for showing the higher value of care delivered to the population after improved hospital staffing levels. This quasi-experimental evaluation surpasses previous observations showing a statistical relationship between the nurse-to-patient ratio and care safety.[2]

However, in the absence of cluster randomisation, the comparability of hospitals between groups at baseline was questionable, especially regarding nurse staffing and patient outcomes. Hospitals were arbitrarily assigned to receive the intervention and the related effects were measured a long time after it was implemented. The study did not capture whether the intrinsic motivation of these hospitals to improve was greater compared with control hospitals; the observed improvement might be explained by other mechanisms than the tested intervention itself.[3]

Another issue relates to hospital-level measures of staffing, which cannot accurately capture the relationship between patients and the nurses caring for them within every hospital ward. The workload might not be uniformly distributed over time across different wards, and the caregiver-to-patient ratio is a proxy that reflects indirectly the influence of human and organisational factors on patient outcomes. In addition to how teams are structured and collaborate efficiently, the attributes of health-care professionals can influence the generalisability of the predefined ratio,[4] including their individual background and skills, previous experience, and length of service in the ward. Better understanding the key drivers of the performance of nursing teams would allow for the development of solutions to maintain the quality of care, even in cases of a suboptimal ratio. Beyond adapting hospital staffing to the workload, which is crucial, effective strategies are needed to shape highly reliable nursing teams and improve patient outcomes.[5]

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Life in View/Science Photo Library

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Authors' reply

In 2016, the state of Queensland, Australia, established a policy limiting the average number of patients per nurse for adult medical surgical wards in 27 public hospitals that treated more than half of the state's adult acute care admissions. Queensland was motivated by research showing that better hospital nurse staffing is associated with better patient outcomes, as well as growing international efforts to translate this research into effective policy.[1]

In these hospitals, 2 years after the policy's promulgation, patient-to-nurse ratios were indeed lower as were, notably, patient 30-day mortality and length of stay. Did the policy cause the staffing changes? Did these staffing changes cause these improvements in patient outcomes? Evidence in favour of both is strengthened by the existence of hospitals in Queensland that were treating similar types of patients but were not subject to this policy. Nurses' workloads there did not diminish as much, nor did their patient outcomes improve, even after adjustment for the pre-existing differences between the two groups of hospitals.

Our study[2] is the first to benchmark the improvements from a large-scale, real-world change in nurse staffing policy against trends in a comparison hospital group within the same health-care domain. Queensland did not assign hospitals to the new policy at random, a point taken up at length in the original Article. Nothing raised by Antoine Duclos and Claude Guerin makes any more plausible the possibility that the observed differences in staffing and patient outcomes improvements between hospitals was a function of something other than differential policy exposure. Assertions of the superiority of randomised studies of large-scale health policy interventions should be measured against the political difficulty of randomising organisations to different public policies, as well as the near impossibility of maintaining the integrity of experimental models at the core of large policy implementation projects.[3]

Queensland's policy set an average ratio; earlier efforts at mandating continuous staffing minimums presumed an infeasible amount of micromanagement.[2] In our study, we measured staffing at the hospital level on the basis of reports of medical surgical nurses because these are the most valid measures of medical surgical staffing, on average, within these hospitals. Duclos and Guerin prefer studies of "how teams are structured and collaborate efficiently [which]... can influence the generalisability of the predefined ratio," noting the relevance to care quality even when ratios are suboptimal. Are suboptimal conditions inevitable? In our study, we showed that public policy can be effective in ensuring good staffing, and this is but one study showing that better staffing results in significant cost savings.[4,5]

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The evidence gap in low back pain management strategies

In their Seminar[1] on low back pain, Nebojsa Nick Knezevic and colleagues state that "MRI...can contribute to higher rates of spine surgery and result in higher satisfaction rates".

However, imaging is usually unable to identify the cause of low back pain,[2] and inappropriate referral to imaging is associated with higher rates of unnecessary surgery, higher societal costs, and worse clinical outcomes, including harm from excessive opioid prescription.[3] In fact, reducing inappropriate imaging for low back pain is a priority for campaigns such as Choosing Wisely.[4]