

# Indigenous health research in emergency medicine

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In this issue of *CJEM*, Batta and colleagues provide an analysis of emergency healthcare delivery for Indigenous and non-Indigenous groups, serving as an example of how quantitative data can be used to explore health services provided to Indigenous populations.<sup>1</sup> Such work is crucial to addressing health disparities, because decisions about where resources are assigned are generally made on a quantitative basis in our health systems. This concept is reinforced in the Truth and Reconciliation Commission of Canada's Calls to Action #19, which calls for the identification and closing of health outcomes gaps using epidemiologic indicators of societal health and availability of appropriate health services, including the assessment of long-term trends.<sup>2</sup> Although qualitative research is largely assumed as being more compatible with Indigenous research approaches,<sup>3</sup> there is increasing recognition of the alignment of quantitative techniques with Indigenous knowledge.<sup>4</sup> The work presented by Batta and colleagues is commendable for their ethical engagement with their local First Nations and Métis Health Council in the design and conduct of the research, upholding principles recommended by the First Nations Information Governance Centre.<sup>5</sup>

Current limitations exist around the availability of data sets for quantitative analysis of Indigenous health,<sup>6</sup> because these tend to rely on identifiers of legal status (e.g., First Nations "status") or group membership (e.g., Métis citizenship). These data sets leave out many persons who identify as Indigenous (e.g., First Nations who do not have a treaty status), are identified as Indigenous by others (e.g., adopted members), or who live in Indigenous communities, and thus experience similar disparities in social determinants of health to those considered as being Indigenous in the available

data sets. When such persons are considered as being non-Indigenous by researchers in analysis, disparities may be underestimated. Despite these limitations within the data, an analysis such as that presented by Batta and colleagues is extremely valuable.

In their analysis, Batta and colleagues rely on status information recorded on patient charts as an indicator of the patients' First Nations identity. The authors chose to examine abdominal pain as a "common chief complaint in the ED," which would allow the examination of emergency department (ED) processes, including workup (blood work and imaging), administration of analgesics, consultations, and return visits. The authors focused on a Canadian Triage Acuity Scale 3, as some variation in time to a physician assessment was expected at this level (as opposed to more acute triage scores), and the volume of patients was sufficient for desired study power.<sup>7</sup>

Batta and colleagues did find that First Nations patients were more likely to leave without being seen or have an incomplete visit, but in the analysis of time to physician assessment, time to offering of analgesic medications, or length of stay in the department, they did not find statistically significant differences between the care received by First Nations and non-First Nations individuals. Batta and colleagues did find numerical differences between First Nations and non-First Nations patients in imaging, consultation and weekend presentation rates, as well as age, which, however, were above the generally accepted 0.05 significance value. These may be variables worth investigating in future studies.

Batta and colleagues' findings on length of stay are in contrast to a study by Ospina and colleagues, who found shorter lengths of stay for First Nations members who

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presented to Alberta EDs with chronic obstructive pulmonary disease.<sup>8</sup> The difference in findings may be partly explained by the assumptions made in study design and analysis. Batta and colleagues opted to exclude from their analysis of time-based outcomes patients who leave without being seen, whereas Ospina and colleagues included these patients in their time analysis. Neither procedure is incorrect, but the difference reinforces that findings must always be contextualized in light of the analytic choices made. This is particularly true when considering covariates selected in analysis, and how they relate to patient expectations or experiences. Batta and colleagues adjust their analysis to account for patient age and weekend presentations, whereas patients presenting in the midst of a health concern might not adjust their expectations based on their age and day of presentation.

Understanding experiences of ED care for Indigenous patients requires further quantitative and qualitative studies to explore ED care, and we would advocate that mixed-methods studies that can connect qualitative to quantitative results are especially needed. In particular, there is room in ED research to consider how different population groups are using the ED, and what differences exist in when they present, what they present for, whether they stay and what their desired outcomes are, ultimately impacting receipt of healthcare, which may already be inequitable. Qualitative research conducted by Brown and colleagues documents how First Nations members' decisions about when and even whether to seek emergency care are impacted by anticipations of negative provider assumptions about them based on their race or ethnicity, and experiences of marginalization in primary care.<sup>9</sup> Canadian inquiries have documented the circumstances of Brian Sinclair and Katie Ross's deaths via neglect upon presentation to EDs<sup>10,11</sup>; and, although they may represent extreme negative outcomes, they are potentially reflective of Indigenous patient experiences overall.<sup>12</sup>

Batta and colleagues' article raises the important consideration of how ED research can address issues of equality and equity. There are doubtless instances where no difference in care received by different groups is desirable (equality), but there are also circumstances where it would be positive for different groups to receive care tailored to their self-determined needs and values (equity). We are slowly addressing the issues of equality and equity and their significance within our society. Emergency medicine with triage, undifferentiated

patients in the waiting room, and life or death consequences, provides a unique and critical context. How equity and equality can and should play out in EDs is an important question for researchers to bear in mind as we design and conduct our studies in respectful and ethical research with Indigenous organizations and patients.

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