Prescription opioid use in Australia fell during COVID-19 lockdowns, new study shows

December 5 2022

The number of people who were dispensed opioid painkillers dropped during the height of Victoria's COVID-19 restrictions, then increased as lockdowns lifted, Monash University researchers have found.

While researchers in the study, the first of its kind in Australia, expected that prescription opioid use may have risen during lockdowns, they discovered the opposite was the case.

"We hypothesized mental health conditions experienced during the pandemic may have coincided with higher rates of people using opioids," said Pharmacist and Ph.D. candidate, Monica Jung.

"However, those numbers actually fell, perhaps due to fewer face-to-face medical consultations, canceled elective surgeries, and fewer incidents of physical trauma because most of us were isolating at home."

"On the other hand, there could have been barriers in people being able to access medical appointments and opioid prescriptions, which may have resulted in people with untreated pain."

The study is part of Monash University's landmark Melbourne Experiment, and was a collaboration between Monash's Centre for Medicine Use and Safety at the Monash Institute of Pharmaceutical Sciences in Parkville, the Monash Addiction Research Centre and the Monash Data Futures Institute.

Jung said the team used national dispensing data to analyze the use of all opioids listed under the Pharmaceutical Benefits Scheme. That included 10 types of medication, including morphine, oxycodone, fentanyl and tramadol.

The data were used to compare two points in time: March 2020 when nationwide COVID-19 restrictions were imposed, and late October the same year when lockdowns eased in Victoria.

"The impact of the March restrictions was most pronounced in Victoria and New South Wales, in terms of people taking opioid pain medication," Jung said.

The total number of people dispensed prescription opioid medication declined further in Victoria than in other jurisdictions.

Weekly count of people initiating and using opioids per 1000 people. Weekly count of people initiating and using opioids in Victoria (VIC), New South Wales (NSW) and other jurisdictions (OTH) from January 2018 to December 2020. Blue line represents the actual count of people dispensed opioids while the red line represents the values predicted by the ARIMA model in the absence of COVID-19 restrictions (counterfactual). Dotted vertical lines correspond to the weeks starting 23 March 2020 and 28 October 2020. These dates coincide with the introduction of the nationwide COVID-19 restrictions and the easing of Victorian lockdown, respectively. (A) Total number of people initiating opioids per 1000 people per week in VIC, NSW and OTH. (B) The total number of people using opioids per 1000 people per week in VIC, NSW and OTH. Credit: British Journal of Clinical Pharmacology (2022). DOI: 10.1111/bcp.15577
"But following the easing of lockdown in Victoria in October 2020, we observed an increase (.72 per 1000 people per week) in those numbers," Jung said.

The study showed there was no significant increase in NSW or the rest of Australia at that time. And the number of people who commenced long-term opioid therapy did not change in any part of Australia.

Previous Monash University research has found three million Australian adults take opioid pain medications each year. While opioids have an important role in managing acute and cancer pain, Jung said opioids can potentially lead to adverse events including falls, fractures, overdose and motor vehicle accidents.

Australia ranks eighth highest in the world per capital when it comes to opioid consumption.

Jung said the study's findings provided an important insight into how COVID-19 restrictions impacted access to prescription opioids, and would help inform future strategic responses to ensure safe and effective use of opioids for pain relief.

Monash Data Futures Institute Research Director Geoff Webb added, "These results demonstrate the potential of advanced data analysis to provide unexpected insights into medicine use and safety in the community and the benefits of interdisciplinary research."

The study has been published in the British Journal of Clinical Pharmacology.


Provided by Monash University
APA citation: Prescription opioid use in Australia fell during COVID-19 lockdowns, new study shows