Older drivers drinking or using drugs up to four times likelier to be at fault during a car crash

April 28 2023

Credit: Pixabay/CC0 Public Domain

Substance use among older drivers increases the probability of them being at-fault two to four times during a crash, a new study, analyzing

nine years' worth of US nationwide highway traffic data, shows.

Although older drivers are less likely to report using substances, this research found that out of a sample of 87,060 drivers involved in two moving vehicle crashes, more than one-third were motorists over the age of 70 who tested positive for substances.

Findings are published today in the journal *Traffic Injury Prevention*.

"In general older drivers are at an elevated risk for being at-fault in a fatal car crash, this is especially the case when they are under the influence of alcohol or drugs," explains the lead author, Dr. Satish Kedia, a Professor at the University of Memphis School of Public Health's Division of Social and Behavioral Sciences.

In 2020, there were almost 48 million licensed drivers ages 65 and older in the United States, according to the CDC. This is a 68% increase since 2000. And in 2020, about 7,500 seniors died in collisions while nearly 200,000 others were injured.

"There is no question that driving helps older adults stay mobile, enjoy more activities, and maintain independence," Kedia added.

"But it is really important that this is done within the context of the law, as our research shows just how much aging increases the risk of being at-fault for injury or fatality in a drug or alcohol-related traffic accident."

Kedia is the lead author of a study in collaboration with researchers from the University of Memphis, University of Tennessee Health Science Center, Kent State University, and Slippery Rock University of Pennsylvania.

In this novel study, the research team examined data from the National

Highway Traffic Safety Administration's Fatality Analysis Reporting System between the years 2010–2018, to determine the impact of substance use (including alcohol, cannabinoids, stimulants, narcotics, depressants, and hallucinogens) on the likelihood of drivers being at-fault for a fatal crash on U.S. public roads, with emphasis on older adult drivers.

In total, there were 43,530 two vehicle crash pairs involved in two moving-vehicle crashes. Substance use was reported among 42% of the drivers involved in these incidents—from this 1,978 were adults 70+, 1,454 were over the age of 80.

The team computed the relative crash involvement ratios for each category of substance and illicit drugs. For those aged 70–79 years, it was 1.17; but, more than double (2.56) for drivers over 80 years old. It was relatively low among drivers aged 20 to 69 years.

The study found that substance use, in general, disproportionately increased the probability of being at-fault during a crash, regardless of driver's age.

The regression models, even after adjusting for driver's sex, road grade, weather, light conditions, distraction, and speeding at time of crash, revealed that older substance-impaired drivers were twice as likely to be at fault in fatal crashes.

Some of the key takeaways of the study include the need for campaigns to raise awareness about the risk of impaired driving tailored to older adults.

"These campaigns have been shown to moderately reduce fatal crash rates," Kedia stated.

"Another implication is that healthcare professionals and prevention specialists trying to develop best practices for deterring drugged driving must ensure that their intervention efforts address the specific needs of older adults."

This will include emphasis on the danger of unforeseen drug interactions, especially the dangerous interactions between many prescription medications and alcohol that can compromise drivers' motor skills and reaction time.

The research team's suggestions for policymakers include implementing some common-sense steps, such as increasing visibility cues (e.g., markings on the road, dedicated left-turn lanes and signals at intersections) on public roads, making it easier for older drivers with visual limitations.

Blind spot detection, automatic pretensioners in seatbelts, and similar technology being built into newer model cars will also aid these efforts. A shortened licensing renewal cycle for drivers over 65, with in-person vision and knowledge tests, and referrals for assessment of cognitive and functional abilities, might also be a consideration.

"I know that it is important for seniors to have a sense of independence and driving helps with the overall quality of life," Kedia said. "However, our findings indicate the need for concerted efforts to prevent both drunk and drugged driving for all age groups, especially among older adults."

Specific to limiting driving while intoxicated (DWI), evidence suggests that the most effective deterrents are strong DWI laws, enforcement of such laws, and the regular use of sobriety checkpoints. These strategies would ideally be accompanied by educational interventions to increase knowledge of the laws and the risks of impaired driving for all ages.

"Obviously, we do not want to dissuade older people from driving, but knowing the risks involved and taking precautions can help everyone. We just want to persuade them to drive safely for the sake of themselves and others," said Dr. Kedia.

More information: Satish Kedia et al, Driving under the influence of substances and motor vehicle fatalities among older adults in the United States, *Traffic Injury Prevention* (2023). DOI: 10.1080/15389588.2023.2188435

Provided by Taylor & Francis