

Symptoms of insomnia may reduce likelihood of alcohol-induced blackout

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Heavy drinkers with symptoms of insomnia, such as difficulty falling or staying asleep, may be less likely to suffer alcohol-induced blackouts, according to a study published in *Addictive Behaviors* and co-authored by

a Rutgers researcher.

It's the opposite of what they expected when they began the study. Historically, research has suggested that [insomnia](#) worsens [alcohol](#)-related consequences.

"Because insomnia has been shown to impair memory and cognitive functioning, we thought that participants in our study with severe insomnia and high rates of alcohol use would also have the highest rates of blackout frequency," said Angelo M. DiBello, an assistant professor at the Rutgers Center of Alcohol and Substance Use Studies within the Graduate School of Applied and Professional Psychology and a coauthor of the study published in the journal *Addictive Behaviors*. "What we found was exactly the opposite."

To measure alcohol-induced anterograde amnesia—commonly referred to as a blackout—among [young adults](#), DiBello and colleagues from the University of Missouri (first author Mary Beth Miller) and the University of New Mexico (shared first author Cassandra L. Boness) used data collected from 461 [college students](#) from an introductory psychology course at a large Midwestern university.

Eligible participants were at least 18 years old and had reported heavy drinking in the past 30 days—defined as five or more drinks on a single occasion or 14 or more drinks a week for men and more than four and seven drinks, respectively, for women.

Participants were asked about their drinking habits, whether and how often they experienced alcohol-induced blackouts and if they suffered symptoms of insomnia. About a third—146—met the criteria for insomnia.

Researchers, who believed that the opposite would occur, discovered as

alcohol use increased among study participants who reported lower severity of insomnia, blackout frequency increased more than those who reported higher severity of insomnia.

DiBello said more work is needed to understand results that "are contrary to much of the established literature."

But the researchers already have a theory that they plan to test.

One potential explanation is that [circadian misalignment](#), which is common among individuals with insomnia, alters the elimination process of alcohol metabolism, the researchers wrote. Many of the enzymes involved in alcohol metabolism demonstrate time-of-day-dependent variations in activity. If circadian misalignment alters the activity of these enzymes, then it may alter the rate at which alcohol is eliminated from the body.

"We're not saying that the consequences of heavy drinking are absent for those with severe insomnia," DiBello said. "This is not a license to drink heavily if you have trouble sleeping."

"What we are saying, however, is the effect is stronger for those who are low in insomnia," he said. "But of course, people who are high in insomnia who drink a lot still experience elevated [blackout](#) frequency compared to those who drink less."

More information: Mary Beth Miller et al, Insomnia as a moderator of alcohol use and blackout: Potential role in acute physiological consequences, *Addictive Behaviors* (2022). [DOI: 10.1016/j.addbeh.2022.107395](#)

Provided by Rutgers University-New Brunswick

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