

Team finds marijuana use associated with cognitive dysfunction in people with HIV

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Marijuana use is associated with cognitive dysfunction in people with HIV infection who have an alcohol or other drug use disorder, according to a new study from researchers at Boston University School of Public Health (BUSPH), Boston University School of Medicine (BUSM), and Boston Medical Center (BMC).

While researchers did not detect effects of lifetime cumulative exposure, the study, published in *Substance Abuse*, showed that more frequent current [marijuana](#) use was associated with a measure of [cognitive dysfunction](#) on the Medical Outcomes Study HIV Health Survey cognitive function scale.

"People with HIV infection have many reasons to have cognitive dysfunction, from the virus itself to medications for HIV infection and related conditions, particularly as they age," said co-author Richard Saitz, professor and chair of community health sciences at BUSPH, who served as principal investigator on the study. "They also have symptoms like chronic pain and mental health symptoms, and use of marijuana, medically or recreationally, may seem like an option to consider. But at least among people with substance use disorders, it appears to have detrimental effects on cognitive function."

Substance use and substance use disorder are disproportionately common among people living with HIV (PLWH)—estimated at 40 percent to 74 percent. As PLWH are successfully treated for their infections and are now getting older, information about how alcohol and marijuana might

affect their symptoms and physical function is critical to their continued health. Aging with HIV infection is associated with many of the same comorbid health conditions that occur in people without HIV [infection](#). These include cardiovascular diseases and dementia, both of which can be affected by substance use.

"Few, if any, studies have examined the combined effects that alcohol use and marijuana use may have on cognition in PLWH," the authors wrote. "Such an understanding could contribute to efforts to reduce harmful substance use and prevent clinical consequences, particularly in an era in which 'moderate' drinking is at times discussed in terms of possible beneficial effects, and in which marijuana is discussed as a relatively safe and even therapeutic substance."

The researchers conducted cross-sectional regression analyses on 215 HIV-infected adults diagnosed with substance disorder, based on the current Diagnostic and Statistical Manual of Mental Disorders (fourth edition). Participants were part of the Boston Alcohol Research Collaboration on HIV/AIDS cohort, 18 years or older, and had current alcohol or other drug dependence. The study included measures of both current and lifetime alcohol and marijuana use.

There were no effects detected of alcohol or past marijuana exposure on cognitive function, nor did there appear to be any evidence for synergistic effects on cognition. Furthermore, neither alcohol nor marijuana appeared to affect simple tests of memory or attention. The authors postulated that such effects were not detected, even though they are expected at the least with heavy [alcohol](#) use, because of multiple other exposures and comorbid [health](#) conditions that participants had.

Provided by Boston University School of Medicine

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