

# New study examines criminal behavior in patients with neurodegenerative diseases

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Criminal behavior can occur in patients with some neurodegenerative diseases, although patients with Alzheimer disease (AD) were among the least likely to commit crimes, according to a study published online by *JAMA Neurology*.

Neurodegenerative diseases can cause dysfunction of the neural structures involved with judgment, executive function, emotional processing, sexual behavior, violence and self-awareness. This dysfunction can lead to antisocial and [criminal behavior](#), according to the study background.

Madeleine Liljegen, M.D., of Lund University, Sweden, Georges Naasan, M.D., of the University of California, San Francisco, and coauthors examined the type and frequency of criminal behaviors among [patients](#) with a dementing disorder by reviewing medical records of 2,397 patients seen at the University of California, San Francisco, Memory and Aging Center between 1999 and 2012. The patients included 545 with AD, 171 patients with behavioral variant of frontotemporal dementia (bvFTD, manifests in major personality changes), 89 patients with semantic variant of primary progressive aphasia (language declines) and 30 patients with Huntington disease (an inherited disease).

The medical review showed 204 of the 2,397 patients (8.5 percent) had a history of criminal behavior that emerged during their illness. Among the different diagnoses, those patients who exhibited criminal behavior

were 42 of 545 patients (7.7 percent) with AD, 64 of 171 patients (37.4 percent) with bvFTD, 24 of 89 patients (27 percent) with semantic variant of [primary progressive aphasia](#), and six of 30 patients (20 percent) with Huntington disease.

Common criminal behaviors in the bvFTD group, which had the highest percentage of patients with documented criminal behaviors, were theft, [traffic violations](#), sexual advances, trespassing and public urination. Traffic violations were commonly committed by AD patients, often related to memory loss. All the patients who urinated in public were men. Men were also more likely than women to make sexual advances (15.2% vs. 5.1%).

"The findings from this study suggest that individuals who care for middle-aged and elderly patients need to be vigilant in the diagnosis of degenerative conditions when behavior begins to deviate from the patient's norm and work hard to protect these individuals when they end up in legal settings," the study conclude.

**More information:** *JAMA Neurology*,  
[archneur.jamanetwork.com/artic ... jamaneurol.2014.3781](https://archneur.jamanetwork.com/article.aspx?doi=10.1001/jamaneurol.2014.3781)

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