

Early Cannabis Use Tied to Schizotypal Personality Disorder

Megan Brooks – Medscape – May 17, 2012

Early adolescent cannabis use may contribute to the development of symptoms of schizotypal personality disorder (SPD) in adulthood, according to new data from a longitudinal cohort study.

"The uniqueness of this study lies in the demonstration of an association between early cannabis use and subsequent schizophrenia-like symptoms that persisted into adulthood and that was not explained by early anxiety or depressive disorders, or exposure to other drug and cigarette use," study author Deidre M. Anglin, PhD, assistant professor of clinical psychology, City College and Graduate Center, City University of New York, told *Medscape Medical News*. "In addition, this study adds to the literature by demonstrating that this association...was not only limited to those already exhibiting higher levels of these symptoms during childhood and adolescence," she added.

The study is published in the May issue of *Schizophrenia Research*.

Mounting evidence indicates that cannabis use is temporally associated with the development of schizophrenia in some young people, but less is known about its relationship to latent SPD traits. SPD symptoms are characterized by attenuated psychotic symptoms that include unusual perceptual experiences and beliefs and odd and withdrawn behavior. To investigate, Dr. Anglin and colleagues analyzed prospective data on 804 participants enrolled in the longitudinal Children in the Community cohort study from upstate New York.

As part of the study, participants were assessed for cannabis use and Axis I and II disorders, beginning at a mean age of 13 years (range, 9 - 18 years), and again at around the ages of 16, 22, and 33 years. During the 3 assessments, about 70% of participants (n = 567) reported ever using cannabis; the majority reported experimental or rare use. Only 17% (n = 97) reported early cannabis use, defined as regular use before the age of 14 years.

These early users were significantly more likely than nonusers to use other drugs (19% vs 2%) and to smoke cigarettes (86% vs 36%); they were also more likely to have major depression (9% vs 4%) but not anxiety disorder (23% vs 27%). Early cannabis users had only a "slightly higher" mean level of SPD symptoms.

The researchers report that cannabis use before the age of 14 years "strongly predicted" schizotypal symptoms in adulthood, independent of early adolescent schizotypy, major depression, anxiety, other drug use, and cigarette use. Over the trajectory, early cannabis users demonstrated higher levels of SPD symptoms (.24 SD unit difference, Cohen's d, $P < .01$) than nonusers.

Importantly, they note, the effect of early cannabis use on SPD symptoms into adulthood was not restricted to those already showing SPD symptoms in adolescence or to those with signs of depression or anxiety or use of other drugs or cigarettes.

Large Body of Evidence

This study, said Dr. Anglin, adds to "the large body of evidence relating cannabis use with psychosis by demonstrating that cannabis use occurring earlier in development may also play a role in the development of subthreshold schizophrenia-like symptoms."

Study coauthor Cheryl Corcoran, MD, from the New York State Psychiatric Institute and Columbia University, in New York City, told *Medscape Medical News* what is "truly noteworthy is that cannabis use may play a role in the formation of schizophrenia symptoms beyond psychotic symptoms, such as its characteristic oddness and negative symptoms of low motivation and low social drive."

"From an epidemiological perspective, this study was well done and controlled for important potential confounds, including earlier symptoms, depression, anxiety, other drug use, and cigarette smoking," Dr. Corcoran added.

Reached for comment, Wayne Hall, PhD, from the University of Queensland Centre for Clinical Research in St. Lucia, Australia, who was not involved in the study, told *Medscape Medical News* that the results are "largely confirmatory of the literature."

The authors note that additional research is needed to determine the underlying mechanisms for the association of early cannabis use and SPD symptoms and to determine whether these effects of using cannabis on SPD symptoms vary with duration of use throughout the life course.

It is unclear, the study authors add, "whether the effects of early cannabis use are minimized among those who stop smoking at some other developmentally critical point (eg, in their early 20s or even later)."

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