

# The Interaction of Attention Deficit Disorder, Schizotypal Personality, and Cannabis Experiences in College Students

Austin J. Foreman & Sara L. Gibson  
University of Louisiana at Lafayette, Lafayette, LA

## Introduction

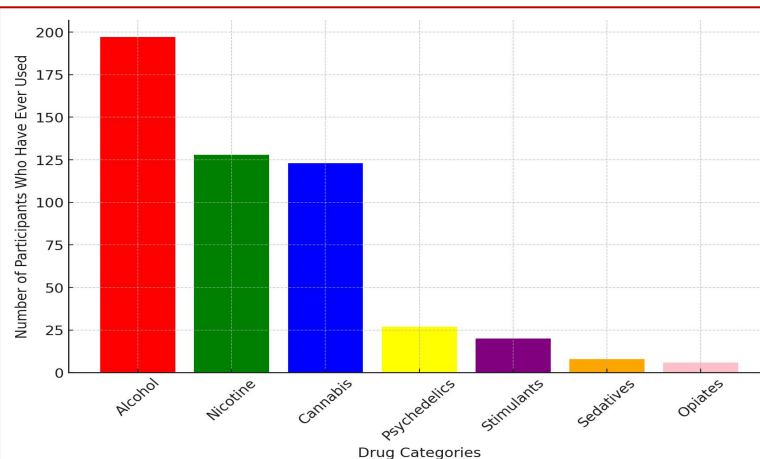
Significant variation exists in the population regarding individual response to *Cannabis sativa*, specifically THC, the primary psychoactive compound (Ameri, 1999). Identifying risk factors for cannabis-induced psychotic-like events is important, as the propensity for such experiences may be indicative of underlying risk for development of psychotic disorder (PD; Barkus & Lewis, 2008).

## Methods

A survey consisting of the schizotypal personality questionnaire-brief (SPQ-B), the cannabis experiences questionnaire-intoxication effects (CEQ-I), and relevant demographics regarding individual and family history of psychiatric disorders, as well as individual prescription and recreational drug use, was administered via Qualtrics using the UL-Lafayette SONA system pool ( $N = 258$ ). Of our sample, 25.58% ( $N = 66$ ) reported a diagnosis of ADD/ADHD, and 47.67% ( $N = 123$ ) reported having ever used cannabis, with 64 current users (24.81%). Our sample was 70.16% ( $N = 181$ ) female, and was 19.22 years old on average.

## Preliminary Results

Students with ADD/ADHD differed significantly ( $M = 10.91$ ,  $SD = 5.60$ ) from students without ADD/ADHD ( $M = 8.90$ ,  $SD = 4.82$ ) on the measure of schizotypal personality traits,  $t(100)=2.60$ ,  $p = 0.011$ . There was a weak positive correlation between ratings of schizotypal personal traits and both the dysphoric-paranoid ( $r = 0.31$ ,  $p = 0.0004$ ) and the euphoric scales of the CEQ-I ( $r = 0.31$ ,  $p = 0.0004$ ). On either subscale of the CEQ-I, students with ADD/ADHD (euphoric:  $M = 17.16$ ,  $SD = 5.18$ ; dysphoric:  $M = 11.49$ ,  $SD = 5.15$ ) did not differ significantly from students without ADD/ADHD (euphoric:  $M = 16.14$ ,  $SD = 6.37$ ; dysphoric:  $M = 10.99$ ,  $SD = 4.17$ ).



## Discussion

The notion that those with ADD/ADHD may be at a higher risk of developing psychosis may be due to the shared genetic (Larsson et al., 2013) and neurodevelopmental (Nourredine et al., 2021) risk between ADD/ADHD and PDs, along with higher rates of cannabis use disorder in the ADD/ADHD population. Also, executive function, attentional processes, and working memory (verbal) are shared areas of neurocognitive deficits in both ADD/ADHD and PDs; these are areas impaired by both acute and chronic cannabis exposure (Francisco et al., 2023). One limitation of the study was a question mistakenly left off the CEQ-I dysphoric dimension in our survey. While our reliability (6 items,  $\alpha = 0.78$ ) is comparable to Quinn et al., (7 items,  $\alpha = 0.81$ ), it is unclear how this may have affected validity.

## References

- Ameri, A. (1999). The effects of cannabinoids on the brain. *Progress in Neurobiology*, 58(4), 315-348.
- Barkus, E. & Lewis, S. (2008). Schizotypy and psychosis-like experiences from recreational cannabis in a non-clinical sample. *Psychological Medicine*, 38(9), 1267-1276.
- Francisco, A. P., Lethbridge, G., Patterson, B., Bergmann, C. G. & Ameringen, M. V. (2023). Cannabis use in attention-deficit/hyperactivity disorder (ADHD): A scoping review. *Journal of Psychiatric Research*, 157, 239-256.
- Larsson, H., Ryden, E., Boman, M., Langstrom, N., Lichtenstein, P. & Landen, M. (2014). Does attention deficit hyperactivity disorder share etiologic factors with bipolar disorder and schizophrenia? *British Journal of Psychiatry*, 203, 103-106.
- Nourredine, M., Gering, A., Fournier, P., Rolland, B., Falissard, B., Cucherat, M., Geoffroy, M. & Jurek, L. (2021). Association of attention-deficit/hyperactivity disorder in childhood and adolescence with the risk of subsequent psychotic disorder: A systematic review and meta-analysis. *JAMA Psychiatry*, 78(5), 519-529.
- Quinn, C. A., Wilson, H., Cockshaw, W., Barkus, E. & Hides, L. (2017). Development and validation of the cannabis experiences questionnaire - intoxication effects checklist (CEQ-I) short form. *Schizophrenia Research*, 189, 91-96.