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2021

## Examining Rising Substance Use during COVID-19

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Title: Examining Rising Substance Use during COVID-19

Author: [Saad Bhatti](#)

With the novel coronavirus (COVID-19) requiring people to stay indoors, many individuals have been coping with the boredom and anxiety brought upon by the pandemic through controversial ways, such as marijuana use and alcohol abuse. Angel Spence, a Psychology Major on the graduate school track, seeks to understand why this is the case.

Spence first wanted to understand the experiences of individuals diagnosed with COVID-19 through the project “Using Protection-Motivation Theory to Understand Mental Health Impact of Surviving COVID-19.” Spence and a team of researchers analyzed a series of YouTube videos that chronicled the personal stories of patients with COVID-19 and how the virus affected them. The videos ranged from heartbreaking to shocking. One video focused on a woman’s difficulty in not being able to socially distance with her partner and six children. Another video highlighted the struggle of a 12-year-old girl who had a heart attack as a result of the virus. Spence identified several perceptions the pandemic brought about. These include the pandemic being high-risk; a dual-threat to physical and mental health; triggering survival instincts in people who wanted access to testing and treatments; and, overall, eliciting fear, self-condemnation, and gratitude.

Based on these videos, Spence became interested in examining how COVID-19 impacted marijuana and alcohol use. Using a Cohort Spit for Science survey, Spence compared marijuana and alcohol use between those who overall felt more negative emotions before the pandemic and during the pandemic. In her sample population, Spence discovered marijuana and alcohol use increased by 45.3% and 35.4%, respectively, which clearly underscored a correlation between substance use and these more negative emotions.

The isolation and anxiety produced by the pandemic has led to behaviors such as noncompliance with public health directives and excessive substance use. Marijuana and alcohol have always been considered escapist drugs, and the pandemic has exacerbated abuse of these drugs. While quarantine adds difficulty for people trying to find more positive activities, recreational use of drugs has provided the same mental stimulation, although in a potentially harmful way.

Drugs, such as marijuana and alcohol, activate the ventral tegmental area and nucleus accumbens, both of which comprise the reward circuitry of the brain. When drugs activate receptors in this area, the neurotransmitter dopamine is released leading to pleasurable emotions. It is hypothesized that drug abuse during the pandemic operates through a negative reinforcement paradigm. In an effort to eradicate negative feelings, users abuse more marijuana and alcohol, encouraging further use of the drugs.

Spence’s motivation stems from her desire to make a positive impact for future generations. “I want to give empowerment and sustainability to youth and marginalized groups,” she states. “And when I saw the email for VCU Great Program, I decided to move into research from the food industry. I felt that the funding from the National Institute of Health gave me

endless possibilities, plus my extensive research training made me seriously consider research as a career.”

Spence plans to attend school to become a Physician Assistant in addition to studying Public Health, so she can practice both medicine and policy. Spence says, “Find people whose goals align with yours, and always be passionate about what you do.” To learn more about Angel Spence’s research, email [spencea2@vcu.edu](mailto:spencea2@vcu.edu).