

The current policies of the United States are changing towards the use of cannabis and marijuana use. Where once society would judge a person for using marijuana as an illegal substance have begun to accept it as part of the norm. Medical societies are now prescribing people who have used pharmaceutical prescribed drugs with medical cannabis as a way to self-medicate themselves. A person who has a diagnosis for ADHD or other subsequent mental health issues have begun to self-medicate themselves with marijuana opposed to using prescribed medication because of the less severe side effects a person experiences. With many states passing laws to legalize marijuana, doctors have begun to prescribe medical marijuana for depression, anxiety, pain, sleep aids and for ADHD for adults. Researchers have begun to reassess test and hypothesis regarding marijuana effect in helping or harming a person who is already suffering from a mental disability. I have chosen six literature reviews that show different outcomes in their studies concerning if marijuana can be used to effectively in treating a person who has a mental illness.

#### Characteristic of Attention-Deficit/ Hyperactivity Disorder

Attention-Deficit/Hyperactivity Disorder better known to the public as ADHD is usually referred to as a diagnosis given to adolescent children. ADHD is a diagnosis that is given to a person who has a six or more symptoms defined by Diagnostic and Statistical Manual-5-TR (2022) as a “persistent pattern of inattention and or hyperactivity-impulsivity that interferes with functioning or development, as (1) and/or (2): inattention and/or Hyperactivity and impulsivity”(68-69). According to DMS-5-TR a person must show six or more of the following symptoms defined in the abovementioned categories. The symptoms include but are not limited to failing to pay close attention to detail, difficulty with task, do not follow through with instructions, difficulty with task, do not like task which includes mental efforts, loses things. The behaviors of ADHD are defined as fidget, cannot remain in place, cannot quietly engage in activities, inappropriate behaviors, emotional deregulation, and rude or interrupting

behaviors. ADHD behaviors usually presents itself consistently at an early age for children and will manifest itself by the age of twelve where it interferes with daily activities and functions. DMS-5-TR (2022) refers to adults suffering from ADHD as, “extreme restlessness or wearing others out with their activity”. (70) The neurocognitive deficits effect a person suffering for ADHD with their daily functions, such as, organizing, test taking, setting boundaries, working memory, and planning. With adult’s hyperactivity may diminish but their impulsive behaviors can continue. Adults suffer from relational dysfunction, job loss, criminal behavior, substance abuse, and lack of educational opportunities. Cultural issues related to ADHD affects children of diverse cultures based on the behaviors from children. The Unites States has a high rate of children who are diagnosed with ADHD. The economic and cultural factor plays a role on how children are diagnosed with having ADHD opposed to having a diagnosis for another condition. Caucasian males are diagnosed with ADHD more than females who are diagnosed with other comorbid disorders.

While each articles studies were done differently the consensus among the studies were similar in nature. Lam, et al. (2020) research was based on a person with ADHD has an increased risk of the consumption of synthetic cannabis and if that increase would have a direct effect on the person’s behavior. The method was a questionnaire via an ADHD Self-Rating Scale. The researchers found that few studies on how THC affects mental disorders have not been investigated extensively. The researchers found that THC can have a dangerous effect on a person with ADHD due to the fact of the side effects. Lam, et al. (2020) stated the side effects could include hallucinations, psychosis, anxiety, self-harm, suicidality, and poisoning that could be additional harmful for a person who has already been diagnosed with mental diagnosis. The participants of the study were majority men ranging in the age group of 18-55. 15% of the study reported a history of cannabis consumption and 66.7% had lifetime experience with illicit drugs. The findings of the study determined there an elevated risk for Synthetic

Cannabis use in ADHD patients which, “would have an impact on the severity of addiction and therapeutic outcome and of further psychiatric disorders” (1599).

Metrik, et al. (2020) is another study that focused on if ADHD is linked to cannabis. This study also focused on another side effect of people with ADHD, which is their sleep pattern. People with ADHD have a tough time sleeping and getting enough rest. This study was done over a period of twelve months with a six-month evaluation period in between. The population for this study consisted of 361 veterans recruited from Veterans Health Administration. The initial recruitment was done by phone with a follow up in person visit at six months. Metrik, et al. (2020) states, evidence linking ADHD with problematic cannabis use, there is growing perception that cannabis use may be therapeutic for ADHD symptoms” (17). Even with this evidence little research has been done regarding cannabis and veterans suffering with ADHD. It has been noted the affective-motivational model suggest cannabis helps veterans with emotion dysregulation. The study found that sleep and social anxiety were at a greater risk for problems. The findings of the study found cannabis led to more problems for veterans with ADHD. There was also finding that there should be an evidence-based coping skills to address both ADHD and the use of cannabis but not for cannabis as the coping skill.

Merrill, et al. (2020) study used Pittsburg ADHD Longitudinal study. The study group consisted of 317 participants, 25 years of age, and who were diagnosed with ADHD as a child. The study was based on the fact that children diagnosed with ADHD have problems with marijuana and other substance abuse. This was a person-centered analysis. The study focused on the anti-social behaviors associated with substance abuse with people who have diagnosis of ADHD. Marijuana was considered a high use of substance abuse that led to deviant behaviors within the participants. The study found 43% of the sample were affected in areas such relationships, educational, financial by their use of substances (marijuana) which impaired their judgement.

Petker, et al. (2021) study speaks to the ongoing debate regarding the current trend regarding the negative effects marijuana has on a person diagnosed with ADHD. The studies have shown that cannabis does more harm than good. The researchers make note of findings that literature has shown the significant risks such as bronchitis, psychotic disorders, vehicle fatalities due cannabis impairment, and other health risk are all associated with marijuana use. There is more of interest regarding cannabis use and ADHD impairs memory, cognitive thinking, and overall functioning. There were 731 participants in the study who reported elevated risk cannabis and drinking use. The age was between 18-23. The cannabis use was assessed using the Alcohol, Smoking, Substance Involvement Screening Test. There was an examine of Adult ADHD Self-Report Scale. There was a finding there was a link between frequent cannabis use and cognitive performance in young adult. Petker, et al. (2021) "report more symptoms consistent with the hyperactive-impulsive subtype of ADHD" (1761). There is a recommendation for a more in-depth study to long term behaviors and the effects from cannabis.

Harty, et al. (2015) focused on marijuana use for people with ADHD is between the age of 18-30, with many starting to use by the age of 12 years. This study focused on the risk factors associated with the usage. Harty, et al. stated in their research it was found, "ADHD group by expectancy interactions were found. Sexual-enhancement expectations were more strongly associated with marijuana use frequency among individuals with ADHD histories while cognitive behavioral-impairment expectations were more strongly associated with marijuana use frequency among individuals without ADHD" (1470). This study wanted to show how many young people with ADHD will use marijuana as they get older. The participants were 18 years and older who completed questionnaires with little help to avoid bias. The study found both positive and negative expectations regarding marijuana use. Individuals with ADHD had lower rates of perceived cognitive and behavioral impairment regarding their marijuana usage.

The finding in all six studies show that there is a negative relationship between cannabis use and people with a diagnosis of ADHD. While the researchers all agree with the new trend towards the legalization of marijuana and the stigma that is no longer attached to the usage, there is a significant mental and physical health problems that is associated with someone who has a diagnosis. The findings focus on the point of the individuals mental, financial, housing, relationships, criminality, impulse, and educational areas in their lives are affected by their usage. There are few studies that show a positive reason for a person to use marijuana to treat ADHD. Most of the participants of the studies were individuals who were diagnosed at an early age and began the usage of marijuana on a continuous basis, there is evidence of a negative effect among the users. More studies are needed to address the levels of THC (tetrahydrocannabinol) and CUD (cannabis use disorder) in the usage of the individuals as this is an area that is not address on a consistent basis. The studies lean more to male participants while not addressing the needs of females who also have ADHD diagnosis and should not be ignored because of the findings that suggest females are more incline to have more diagnosis that they could be assigned.

## Reference

American Psychiatric Association. (2022). Diagnostic and Statistical Manual of Mental Disorders: Fifth Edition Text Revision, DSM-5-TR.

Borsari, B., Metrik, J., Stevens, A.K., Gunn, R. L., Jackson, K.M. (2020). Examining Motivational Pathways from Adult Attention-Deficit/Hyperactivity Disorder Symptoms to Cannabis Use: Results from a

Prospective Study of Veterans. American Psychological Association, Vol. 35., No. 1., 16-24.

<http://dx.doi.org/10.1037/adb0000682>

Harty, S.C., Pedersen S.L., Gnagy, E.M., Pelham Jr., W.E., Molina, B.S.G. (2015). ADHD and Marijuana-Use Expectancies in Young Adulthood. *Substance Use & Misuse*. 50:1470-1478, ISSN:1082-6084.

Lam, P.A., Moeller, S., Spiting, C., Lam, M.C., Philipsen, A., Muller, H.H.O. (2021). Consumption of Synthetic Cannabinoids in Adult Attention-Deficit/Hyperactivity Disorder: A Pilot study. *International Journal of Mental Health and Addiction*, 19:1586-1604. <https://doi.org/10.1007/s11469-020-002-48-6>

Merrill, B.M., Molina, B.S. G., Coxe, S., Gnagy, E.M., Altszuler, A.R., Macphee, F.L., Morrow, A.S., Trucco, E.M., Pelham, W.E. (2020). Functional Outcomes of Young Adults with Childhood ADHD: A Latent Profile Analysis. *Journal of Clinical Child & Adolescent Psychology*: 9(2), 215-228.

<https://doi.org/10.1080/15374416.2018.1547968>

Petker, T., Ferro, M., Ameringen, M.V., Murphy, J., MacKillop, J. (2021). Daily, but not occasional, cannabis use is selectively associated with more impulsive delay discounting and hyperactive ADHD symptoms in binge-drinking young adults. *Psychopharmacology*, 238:1753-1763.

<https://doi.org/10.1007/s00213-021-05781-3>

Petker, T., DeJesus, J., Lee, A., Gillard, J., Balodis, I., Amlung, M. Oshri, A., MacKillop, J., Owens, M.M., George, T., Hall, G., Schmidt, L. (2020). Cannabis Use, Cognitive Performance, and Symptoms of Attention Deficit/Hyperactivity Disorder in Community Adults. *American Psychological Association*, Vol 28, No. 6, 638-648. <http://dx.doi.org/10.1037/pha0000354>