Dmochowska Joanna, Mikos Eryk, Kanon Karol, Moqbil Sara, Wasyluk Martyna. The Current State of Treatment for Cannabis Use of Disorder. Journal Education, Health and Sport. 2022;12(8):265-269. eISSN 2391-8306.

http://dx.doi.org/10.12775/JEHS.2022.12.08.026

https://apcz.umk.pl/JEHS/article/view/JEHS.2022.12.08.026

https://zenodo.org/record/6954800

The journal has had 40 points in Ministry of Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Education and Science of December 21, 2021. No. The journal has had 40 points in Ministry of Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Education and Science of December 21, 2021. No. 32343.

Has a Journal's Unique Identifier: 201159. Scientific disciplines assigned: Physical Culture Sciences (Field of Medical sciences and health sciences); Health Sciences (Field of Medical Sciences and Health Sciences).

Punkty Ministerialne z 2019 - aktualny rok 40 punktów. Załącznik do komunikatu Ministra Edukacji i Nauki z dnia 21 grudnia 2021 r. Lp. 32343. Posiada Unikatowy Identyfikator Czasopisma: 201159. Przypisane dyscypliny naukowe: Nauki o kulturze fizycznej (Dziedzina nauk medycznych i nauk o zdrowiu); Nauki o zdrowiu (Dziedzina nauk medycznych i nauk o zdrowiu).

© The Authors 2022;
This article is published with open access at Licensee Open Journal Systems of Nicolaus Copernicus University in Torun, Poland
Open Access. This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium, provided the original author (s) and source are credited. This is an open access article licensed under the terms of the Creative Commons Attribution Non commercial license Share alike.

(http://creativecommons.org/licenses/by-nc-sa/4.0)) which permits unrestricted, non commercial use, distribution and reproduction in any medium, provided the work is properly cited.

The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 17.07.2022. Revised: 27.07.2022. Accepted: 02.08.2022.

## The Current State of Treatment for Cannabis Use Disorder

## Joanna Dmochowska

Medical University of Lublin

https://orcid.org/0000-0003-0396-2363

# **Eryk Mikos**

Medical University of Lublin

https://orcid.org/0000-0003-0507-2882

# **Karol Kanon**

Medical University of Lublin

https://orcid.org/0000-0001-6705-1302

# Sara Moqbil

Medical University of Lublin

https://orcid.org/0000-0003-1230-1444

# Martyna Wasyluk

Medical University of Lublin

https://orcid.org/0000-0001-5897-7568

#### **Abstract**

Cannabis remains the most commonly used illicit psychoactive drug and contains substances that affect the brain and body. A range of acute and chronic health problems associated with cannabis use has been identified.

Cannabis use disorder is defined as the continued use of cannabis despite clinically significant impairment. It is estimated that 1 in 10 people who use marijuana will become addicted. CUD is a problematic pattern of cannabis use that causes clinically significant impairment. There is not an available medication to successfully treat CUD, but psychotherapeutic models hold promise. Cognitive behavioural therapy, motivational enhancement therapy and contingency management can substantially reduce cannabis use and cannabis-related problems.

The legalization of non-medical cannabis use in some high-income countries may increase the prevalence of CUD. Since this approach has not yet been validated for CUD, the improvement of psychosocial treatments with pharmacological therapies should be further explored in future clinical research.

Keywords: cannabis; use disorder; treatment; psychotherapy; pharmacotherapies;

### INTRODUCTION

Cannabis is the most widely used illicit drug in Europe and globally. Regulatory responses are also becoming more variable and complicated, as several countries permit cannabis products to be available under certain circumstances for therapeutic purposes, and some are proposing the tolerance of some forms of recreational consumption[1].

Today, marijuana use is on the rise among all adult age groups, both sexes, and pregnant women. People ages 18-25 have the highest rate of use. Cannabis may have harmful long- and short-term effects, such as depression, anxiety, suicide planning, psychotic episodes, amotivational syndrome and relationship problems [2].

#### CURRENT STATE OF KNOWLEDGE

Cannabis use disorder (CUD), also known as cannabis addiction or marijuana addiction, is defined in the International Classification of Diseases ICD-10 as the continued use of cannabis despite clinically significant impairment [3]. It is also recognized in the eleventh revision of the International Classification of Diseases (ICD-11), adding more subdivisions including time intervals of pattern of use (episodic, continuous, or unspecified) and dependence (current, early full remission, sustained partial remission, sustained full remission, or unspecified) compared to the 10th revision [4].

Just because the name has changed and the term "cannabis use" has replaced "cannabis abuse" or "cannabis dependence" doesn't mean that cannabis is not addictive. In fact, research shows conclusively that cannabis is addictive [5]. It is estimated that 1 in 10 people who use marijuana will become addicted. When they start before age 18, the rate of addiction rises to 1 in 6 [2]. The risk of progression from cannabis use to CUD increases with frequency of use. In the USA, adults with CUD, on average, use cannabis 6.2 out of 10 days over a year [6]. Approximately 17.0% of weekly and 19.0% of daily cannabis smokers met the criteria for cannabis use disorder [7].

CUD is prevalent, associated with comorbidity and disability, and largely untreated. Findings suggest the need to improve prevention and educate the public, professionals, and policy makers about possible harms associated with cannabis use disorders and available interventions [6].

## **Treatment**

Psychological intervention Treatment options for cannabis use disorder are limited; however, the use of psychotherapeutic approaches has been carefully evaluated and has all shown promising results [8].

#### Behavioral health treatments include:

Motivational enhancement therapy (MET): a short-term therapy designed to help motivate the person to change harmful behaviors [9].

Cognitive Behavioral Therapy: a form of psychotherapy that helps people identify destructive thought patterns, then change those patterns to positively influence their behaviors [9].

Contingency Management: a behavioral therapy technique that utilizes a formal contract between the therapist and client to help the client change behavior through establishing goals while also setting rewards and penalties [9].

## Pharmacotherapies

No pharmacotherapies have been approved for cannabis use or CUD, although a number of drug classes (such as cannabinoid agonists) have shown promise and require more rigorous evaluation. Treatment of cannabis use and CUD is often complicated by comorbid mental health and other substance use disorders [8].

Findings indicate that SSRI antidepressants, mixed action antidepressants, bupropion, buspirone and atomoxetine are probably of little value in the treatment of cannabis dependence, but the evidence is weak and further research is required [10].

Other possibilities Certain lifestyle changes may help reduce or stop marijuana use. One study found that people who recovered from cannabis use disorder found it helpful to socialize with people who did not use cannabis as part of their recovery [11].

Similar research involving 308 subjects also found that online interventions that include chat counseling can also be helpful for people with cannabis use disorder, especially when used by those who don't traditionally utilize outpatient treatment options [12].

Another study shows that participation in a supervised 2-week aerobic exercise program can reduce cannabis use in non-treatment seeking adults who meet criteria for cannabis use disorder. The results also show that after exercise program completion, cannabis use significantly increased towards pre-treatment levels [13].

#### **SUMMARY**

The low rates of treatment seeking, retention and continuous abstinence (which is still the primary treatment goal) associated with cannabis treatment may suggest that there is considerable room for improvement in the interventions. Because of increasing access and use of cannabis in the general population, along with a high prevalence of CUD among current cannabis users, an urgent need exists for more research to identify effective pharmacologic treatments.

## References

- 1. Burggren AC, Shirazi A, Ginder N, London ED. Cannabis effects on brain structure, function, and cognition: considerations for medical uses of cannabis and its derivatives. Am J Drug Alcohol Abuse. 2019;45(6):563-579. doi:10.1080/00952990.2019.1634086
- 2. Substance Abuse and Mental Health Services Administration, Know the Risks of Marijuana. Available online: https://www.samhsa.gov/marijuana (accessed on 25 July 2022).
- 3. ICD-10 Version:2016 https://icd.who.int/browse10/2016/en#/F12 (accessed on 25 July 2022).
- 4. ICD-11 for Mortality and Morbidity Statistics https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/1913137404 (accessed on 25 July 2022).
- 5. Zehra A, Burns J, Liu C, et al. Cannabis addiction and the brain: a review. J Neuroimmune Pharmacol. 2018;13:438-52. doi:10.1007/s11481-018-9782-9
- 6. Hasin DS, Kerridge BT, Saha TD, et al. Prevalence and Correlates of DSM-5 Cannabis Use Disorder, 2012-2013: Findings from the National Epidemiologic Survey on Alcohol and Related Conditions-III. Am J Psychiatry. 2016;173(6):588-599. doi:10.1176/appi.ajp.2015.15070907
- 7. Cougle JR, Hakes JK, Macatee RJ, Zvolensky MJ, Chavarria J. Probability and correlates of dependence among regular users of alcohol, nicotine, cannabis, and cocaine: concurrent and

- prospective analyses of the National Epidemiologic Survey on Alcohol and Related Conditions. J Clin Psychiatry. 2016;77(4):e444-e450. doi:10.4088/JCP.14m09469
- 8. Connor J, Stjepanovic D, Le Foll B, Hoch E, Budney A, Hall W. Cannabis use and cannabis use disorder. Nature Rev Disease Primers. 2021;7(16). doi:10.1038/s41572-021-00247-4
- 9. NIDA. 2021, April 13. Available Treatments for Marijuana Use Disorders. https://nida.nih.gov/publications/research-reports/marijuana/available-treatments-marijuana-use-disorders (accessed on July 25)
- 10. Nielsen S, Gowing L, Sabioni P, Le Foll B. Pharmacotherapies for cannabis dependence. Cochrane Database Syst Rev. 2019;1(1):CD008940. Published 2019 Jan 28. doi:10.1002/14651858.CD008940.pub3
- 11. Hodgins DC, Stea JN. Insights from individuals successfully recovered from cannabis use disorder: Natural versus treatment-assisted recoveries and abstinent versus moderation outcomes. Addiction Science & Clinical Practice. 2018;13(16). doi:10.1186/s13722-018-0118-0
- 12. Schaub M, Wenger A, Berg O, et al. A web-based self-help intervention with and without chat counseling to reduce cannabis use in problematic cannabis users: three-arm randomized controlled trial. J Med Internet Res. 2015;17(10):e232.
- 13. Buchowski MS, Meade NN, Charboneau E, et al. Aerobic exercise training reduces cannabis craving and use in non-treatment seeking cannabis-dependent adults. PLoS One. 2011;6(3):e17465. Published 2011 Mar 8. doi:10.1371/journal.pone.0017465