The problem of depression in addicts - selected aspects

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A- Conception and study design; **B** - Collection of data; **C** - Data analysis; **D** - Writing the paper; **E**- Review article; **F** - Approval of the final version of the article; **G** - Other (please specify)

ABSTRACT

According to the World Health Organization, depression is the fourth most serious in the world and one of the main causes of suicide, currently the widest psychological condition, with an annual incidence of 6-12% among adults in the so-called the prime of life and even more than 15% in people of age and even more than 15% in people of age. It is also estimated that about 30-50 percent. people have suffered from depressive disorders even once in their lifetime. The relationship between depression and addiction is two-way, because people with depression are more likely to use stimulants, and depression itself is the most common complication of addiction. A disturbing phenomenon is the frequent use of addictive substances by people with depression: mainly alcohol, but also drugs or medications. Depression and addiction are said to reinforce each other, and this is increasingly ruining the patient's condition. Any addictive or self-destructive behavior can result in symptoms of depression. The paper analyzes the available literature in the aspect of the problem of depression in addicts. The problem is divided into subsections: Dual diagnosis / dual diagnosis, Drugs and depression, Alcohol and depression, Adult Children of Alcoholics and depression, Gambling and depression, Medical marijuana and depression,

Keywords: Depression, addicts**,** adults, children

DOI: 10.5604/01.3001.0016.1753

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Received: 24.06.2022
Accepted: 18.11.2022
Progress in Health Sciences
Vol. 12(2) 2022 pp 99-108

INTRODUCTION

According to the World Health Organization, depression is the fourth most serious in the world and one of the leading causes of suicide; currently, the widest psychological condition, with an annual incidence of 6-12% among adults in the so-called prime of life and even more than 15% in people of age and even more than 15% in people of age. It is also estimated that about 30-50 percent. Moreover, people have suffered from depressive disorders in their lifetime [1].

In 2018, alcohol use was recorded in Poland at 79.9%, while in the case of drugs, the percentage was 5.4% (data for people aged 15-64). According to a recent study by the National Bureau for Drug Prevention and Kantar Polska from 2018, marijuana was the most frequently used drug in the general population, with 12.1%. 7.8% of respondents aged 15-34 confessed to taking it. In contrast, in the entire surveyed population (15-64 years), a higher percentage was recorded among men - 16.4% than among women - 7.7% in the case of the ever-lifetime use rate. 1.4% of respondents (15-34 years old) admitted to using amphetamines in the last year. The use rate is higher among men than women. In the last month, 0.5% of respondents used amphetamines. The highest percentages were recorded among people aged 15-24 (0.9% in the last 30 days) [2] .

The relationship between depression and addiction is two-way because people with depression are more likely to use stimulants, and depression itself is the most common complication of addiction. A disturbing phenomenon is the frequent use of addictive substances by people with depression, mainly alcohol, drugs, or medications. Unfortunately, this may provide temporary relief, but over time it acts as a depressant on the central nervous system. It is estimated that 1 in 4 adults with a mental disorder also has substance abuse problems [3].

Depression and addiction are said to reinforce each other, which is increasingly ruining the patient's condition [3].

In depression, the use of stimulants and mood-boosting agents is a problem. Depressed people want to feel better and increase their abilities by using psychoactive substances such as caffeine, amphetamines, cocaine, and alcohol. They are designed to help overcome depression without the help of a doctor and psychologist. Patients who treat depression only as a state of mind try to heal themselves in their way. However, such actions can lead to addiction and worsen the patient's condition. Withdrawal of these substances causes the disease to worsen and the symptoms to intensify.

Based on numerous long-term observations, it has been established that certain disorders and psychological problems in predisposed people favor the development of addiction [4-7]. These include personality disorders of the dissocial, emotionally unstable, and schizotypal type, bipolar disorder, panic disorder, social phobia, post-traumatic stress disorder, depression, schizophrenia [5-7], and attention deficit hyperactivity disorder [7,8,9]. It is recommended that patients suffering from these particular disorders undergo careful alcohol consumption examination. A Polish study on a group of 2,000 adolescents demonstrated that the occurrence of depressive symptoms increases the frequency of reaching for alcohol, both among boys and girls [10]. Any addictive or self-destructive behavior can result in symptoms of depression.

DUAL DIAGNOSIS/DUAL DIAGNOSIS

Dual or dual diagnosis is where substance use disorders (including alcohol and nicotine) and serious mental disorders such as schizophrenia and affective or anxiety disorders coexist. [11].

The United Nations Office on Drugs and Crime (UNODC) defines a person with a "dual diagnosis" as "a person diagnosed with an alcohol or drug abuse problem in conjunction with another diagnosis, usually psychiatric, such as mood disorders, schizophrenia" [12]. This term often refers to the presence of psychological/psychiatric problems in combination with the use or abuse of various psychoactive substances [13]. People with a "dual diagnosis" experience more severe symptoms of mental disorders, are hospitalized more often, and show more psychosocial difficulties [12]. It is estimated that about half of patients with schizophrenia abuse psychoactive substances (most often alcohol, cannabinoids, and cocaine) [14], and over 67% of people suffering from bipolar disorder abuse or are addicted to psychoactive substances (nicotine, alcohol, sedatives, drugs) [15]. The most common problem, however, is depression [3,16].

The coexistence of two or more disorders may also include the coexistence of addictions to two or more substances or the frequent occurrence of somatic disorders in people with addiction. However, such clinical situations are not considered a dual diagnosis. This concept is reserved only for addiction in a mentally ill person. It should be emphasized that the mental disorders associated with addictions should fully meet the criteria of the ICD-10 or DSM-V classification.

The most common forms of coexistence of various mental disorders in people addicted to psychoactive substances are [17]: using substances as a method of self-healing in problems related to low mood (depression), anxiety or interpersonal difficulties, substance use by people suffering from various forms of psychotic disorders (e.g., schizophrenia), the coexistence of substance addiction with various forms of behavioral addiction, e.g. with gambling,

the coexistence of the use of various psychoactive substances: alcohol, drugs, drugs, designer drugs, development of addiction related to various psychological problems based on personality disorders, development of various syndromes of symptoms, e.g., depression, anxiety, sleep disorders, the relationship of substance addiction with damage to the central nervous system; such damage can be both the cause of addiction development and the destructive effect of alcohol on the brain, alcohol dependence often co-occurs with the unjustly underestimated nicotine addiction.

DRUGS AND DEPRESSION

Depression can cause drug use, but it is also a consequence. Taking psychoactive substances has two effects on depression. On the one hand, drugs can be a factor in causing depression or depressive disorders that arise during withdrawal. On the other hand, people already suffering from depression may use drugs to improve their mood and functioning. Depression can generally be caused by pain, loneliness, and misunderstanding. Pleasant sensations, unfortunately, pass, and the return to reality is very painful, and this usually leads to the following use of drugs. There is a feeling of helplessness and a "closed circle." The addict then functions between the state of euphoria (when taking psychoactive substances) and the state of depression (when the effects of the drug wear off), when he wants to improve his mood again because he can no longer cope with depression.

ALCOHOL AND DEPRESSION

Depression can both cause problems with alcoholism and develop as a complication of alcoholism. Compared to alcohol, it is much more difficult to heal. It has been shown that alcoholism can quadruple the incidence of depression and contribute to developing other mental problems: bipolar disorder and anxiety disorders. There is even a specific category of depression known as alcoholic depression, which may affect up to 90% of harmful drinkers and alcoholics. Some people's symptoms disappear after about two weeks, but they cannot be ignored [18].

In order to find the secondary nature of depression to alcohol consumption, it was assumed that its symptoms should appear no later than four weeks after the last drinking or withdrawal syndrome. At the same time, the observed symptoms cannot be explained by the natural course of intoxication or withdrawal. The risk of developing depression is 1.5–4 times higher in people addicted to alcohol than in people without features of addiction [19,20]. Lesch distinguishes four groups of alcohol-dependent patients [21]:

- Type I - known as the 'allergy model' - is a significant component of somatic addiction, where alcohol consumption mainly avoids or alleviates turbulent and subjectively bothersome withdrawal symptoms. It has also been observed that the patients classified into this group develop alcohol addiction in a characteristic sequence: from risky drinking, and then harmful, to full-blown addiction.
- Type II consists of addicted patients for whom alcohol consumption is targeted to relieve anxiety symptoms and tone tension in stressful situations. This type is sometimes referred to as the "anxiety model". Alcohol is in it way of conflict resolution by people with low self-esteem, rarely the domination of life partners, and having difficulty articulating their own opinion and enforcement of needs. Such patients become under the influence of alcohol offensive. They are also prone to aggression and self-aggression.
- Type III, called symptomatic, groups patients for whom alcohol is present as a specific "antidepressant drug". In this category, to which women are often classified, the most numerous are patients with dual diagnoses. They drink alcohol to improve their mood and achieve a hypnotic effect. The affective and anxiety symptoms are naturally exacerbated after initial, short-term well-being. With alcohol use, the course of depressive disorders worsens, insomnia he no longer succumbs to that degree of "alcohol treatment," and the sleep itself becomes less regenerating. It is also characteristic of the widespread occurrence of self-destructive behavior and aggression in such patients, along with emotional lability and high risk of suicide. Patients from this group require treatment for the observed affective disorders. Depending on the additional diagnosis, they should receive mood-stabilizing medications or antidepressant treatment tailored to their individual needs.
- Type IV is a conditioning-based model. As crucial for the development of Lesch's hypertrophy, abnormalities that appear already in childhood in the functioning of the CNS due to harmful interactions during the developmental period. Often, already in adolescence, excessive impulsivity and dysfunction are observed hide. Patients from this group show a lack of criticism towards addiction to alcohol, and they are easily susceptible to pressure from the environment conducive to its consumption. Due to the primary damage to the nervous system, they are susceptible to the toxic effects of alcohol on the brain and experience seizures relatively frequently. Baseline cognitive decline is rapidly made worse by alcohol as addiction develops. The percentage of men in this group of

patients is higher than in the entire population of addicts.

Symptoms of alcohol depression can vary from one situation to another. Symptoms characteristic of withdrawal syndrome develop in the first 36 hours after abrupt withdrawal from alcohol when depression occurs at the moment of abrupt withdrawal from alcohol, including stress, irritability, insomnia, headaches, tremors, apathy, lack of appetite, and severe also cases: hallucinations, disturbance of consciousness, anxiety, delusions. This type of alcoholic depression, despite sudden and disturbing symptoms, is usually not treatable and disappears on its own.

Alcohol dependence is associated with a higher incidence of psychiatric disorders [5,7,22]:

- overall mood - more than three times,
- depression - almost four times,
- bipolar affective - more than six times,
- anxiety disorders in total - more than twice,
- generalized anxiety - more than four times
- anxiety disorders with panic attacks - almost twice,
- post-traumatic stress disorder - more than twice.

Palzes et al. [23] carried out a cross-sectional study of 2,720,231 adult primary care patients screened for unhealthy alcohol use between 2014 and 2017 at Kaiser Permanente, Northern California, using electronic health record data. Alcohol consumption level was classified as no reported use, low-risk use, and unhealthy use, per National Institute on Alcohol Abuse and Alcoholism guidelines. Unhealthy use was further differentiated into mutually exclusive groups: exceeding only daily limits, only weekly limits, or exceeding both daily and weekly limits. Multivariable multinomial logistic regression models were fit to examine associations between 8 past-year psychiatric disorders (depression, bipolar disorder, anxiety disorder, obsessive-compulsive disorder, schizophrenia, schizoaffective disorder, anorexia nervosa, and bulimia nervosa) and alcohol consumption levels, adjusting for sociodemographic and health characteristics. Among patients who reported alcohol use (n = 861,427), patients with depression and anxiety disorder, compared to those without, had higher odds of exceeding only weekly limits and both limits; patients with bulimia nervosa were also more likely to exceed both limits.

Past harmful use of alcohol quadruples the risk of a depressive episode with current abstinence [7,24]. This risk of depression is more significant in women [7,25]. It is estimated that only about 10% of patients with alcoholic depression have the onset of their illness in depression. The vast majority of people face the problem of depression only during the addiction period. Men are more likely to develop alcohol-related depression, although there is alarming data on the growing number of women with mental disorders and simultaneous alcoholism [5,7,26,27,28].

In a study conducted on a representative sample of the general population, in the year preceding the study, 12.3% of harmful drinkers met the criteria for the diagnosis of affective disorders, most of which (11.3%) were depressive disorders. People with bipolar disorder constituted 0.3% of this group. A much higher percentage of comorbid mental disorders was observed in people with alcohol dependence. In the year preceding the study, almost 30% of addicts suffered from mood disorders, mainly depression (27.9%)

Shivani et al. [29], in their study on the coexistence of mental disorders with alcohol dependence, estimate that throughout their lives, up to 80% of such people experience symptoms of affective disorders, and 40% meet the criteria for depression.

It turned out that the criteria for alcohol dependence were met by approx [30] 30% of people with personality disorders,

- 24% of respondents were diagnosed with adaptive disorders,
- 22% of patients with depressive disorders,
- 18% of people with anxiety disorders,
- 11% of patients with schizophrenia,
- 9% of people with bipolar disorder.

While women suffer from depression twice as often [5,7,27], the risk of developing an addiction is even ten times higher in men [31,32]. In addition, women who develop effectively.

Women are more likely to use alcohol as a coping strategy for psychological distress, with higher rates of comorbidity with depression found in those with an alcohol use disorder. A total of 1889 women aged 18–64 years (M = 36.14) participated [33].

The Patient Health Questionnaire was applied for depression, the Alcohol Use Disorders Identification Test–Short Version for alcohol, and active and avoidant coping were considered. In the period before the pandemic, depression and avoidant coping were good predictors of alcohol consumption in women, regardless of age. During the lockdown, this predictive capacity was only maintained in women aged 35–64. In the mediational models, differences were observed according to age. For women aged 18–34 years, depression was the predictor variable of problematic alcohol consumption, but for women aged 35–64 years, it was the avoidant coping style, which is the predominant style in women of this age with clinical depression. The relevance of age in the combined treatments of depression and problematic alcohol consumption is highlighted, and training in active coping strategies is suggested [33].

Dostanic et al. [34] conducted a cross-sectional study among 104 women whose partners

were admitted to inpatient treatment for alcohol dependence. Depression in women was measured using the Beck Depression Inventory (BDI-II), anxiety was measured with the Beck Anxiety Inventory (BAI), and exposure to physical and sexual IPVAW was measured with the Conflict Tactics Scale (CTS-2). Multinomial logistic regression analyzes were performed to analyze factors related to depression and anxiety. The prevalence of moderate/severe depression and anxiety among women was 34.6% and 25.2%, respectively, while almost half (48.1%) had experienced IPV in the last 12 months. When adjusted for age, IPV exposure increased the odds of experiencing moderate/severe depression 37.5 times (95% CI 7.91-177.76) and 8.15 times of moderate/severe anxiety (95% CI 2.45-27.14). The mental health of women whose partners are addicted to alcohol is at serious risk. Therefore, it should be considered, especially when it involves exposure to marital violence [34].

Data were gathered by Schuckit et al from 2713 alcohol dependent subjects (probands and their alcoholic relatives) and 919 controls. Some form of independent mood disorder was seen during the life-time in slightly fewer alcoholics than controls (14.0% and 17.1%), but alcoholics did show higher rates of independent bipolar disorder (2.3% vs. 1.0%). The life-time rate for independent anxiety disorders was significantly higher in alcoholics than controls (9.4% vs. 3.7%), with most of the differential related to panic disorder (4.2% vs. 1.0%) and social phobia (3.2% vs. 1.4%), but no significant group differences for agoraphobia or obsessive-compulsive disorder. In general, these findings regarding mood and anxiety disorders were reflected in close relatives [35].

ADULT CHILDREN OF ALCOHOLICS AND DEPRESSION

Hall and Webster [36] believe that living in a family where one of the parents is addicted to alcohol is difficult for a child because he or she is in a family system where attention is most often focused on the alcoholic, not his children. In turn, Anda et al. [37] emphasize that in such families, many stressors are related to the symptoms of parental alcohol dependence, which constitute an additional burden. It is often closely related to children's experience of physical, emotional, and sexual violence [37]. In the subject literature [38-41], it is noted that the children of alcoholics belong to the group at increased risk of externalizing disorders). Moreover, internalizing disorders (anxiety disorders, post-traumatic stress), are often evident early in childhood. Both groups of symptoms can manifest differently and change throughout life depending on several distal and proximal factors [40,41].

Young et al. [42,43] singled out 18 maladaptive cognitive schemas in five domains corresponding to the primary, unmet childhood needs. These domains concern disconnection/, weakened autonomy and lack of achievement (deprivation of the need for autonomy and independence), damage to borders (deficits in the sphere of self-discipline), targeting others (deprivation of self-expression for fear of losing love and attention), and excessive vigilance and inhibition (the result of not meeting the needs of spontaneity and fun). Recently, attention has been paid to atypical symptoms in people by increased impulsiveness, aggressiveness, and abuse of psychoactive substances [44,45,46].

Chodkiewicz et al. [47] The research included 66 people - 56 women and ten men, adult children of alcohol addicts, using psychological help. Most people (82%) participated in both individual and group therapy. The remaining people (18%) only benefited from individual therapy, waiting to be included in the therapeutic group. The authors showed a significant correlation between most maladaptive schemas and symptoms of depression, especially regarding patterns in the area of weakened autonomy, focusing on others, and excessive vigilance. It has also been noticed that patterns in the area of damaged borders are strongly associated with externalizing symptoms of depression. It has been found that in Adult Children of Alcoholics, people with depression differentiate from those who do not suffer from maladaptive patterns, such as isolation, defect, failure, dependence, subordination, vulnerability to injury and illness, seeking recognition, pessimism, and self-punishment. Moreover, it has been shown that schemas such as entanglement, self-sacrifice, high standards, and emotional inhibition increase the externalizing symptoms of depression. These schemas (especially those affecting externalizing symptoms) and their initial high level in Adult Children of Alcoholics people cause the frequent occurrence of irritation, anger, hyperactivity, and withdrawal from relationships with others [47].

GAMBLING AND DEPRESSION

Stress, anxiety, and depression are common phenomena for people with gambling problems and their families. It can cause difficulty sleeping, thinking, and solving problems.

The gambling addiction problem, present worldwide and at all social levels, is one of the most pervasive problems in contemporary society. Moreover, according to the research literature, gambling addiction is determined by other psychiatric disorders [48-54].

Pontenza et al. [48] think there is more to pathological gambling and major depression than an ordinary coincidence. The authors found a

relationship between the increased odds ratio of major depression and pathological gambling tendencies. This relationship was also statistically significant after considering the differences in numerous sociodemographic and psychiatric variables. It was calculated that 66% of genetic and 34% of environmental variables were responsible for the pathological gambling tendency. In turn, the susceptibility to major depression depended on genetic factors in 41% and environmental factors in 59%. A significant correlation was found between the genetic variables determining the susceptibility to both abnormalities. As many as 34% of the analyzed genetic factors were responsible for major depression and pathological gambling tendencies. A similar relationship was not observed for any of the studied environmental factors. The authors concluded that genetic background is responsible for the frequent coincidence of pathological gambling and major depression [48].

Kennedy et al. [50] study included 579 participants from 6 centers in Canada and 1 in the United States. 52.5% of the respondents were patients with BD (bipolar disorder), and 47.5% were diagnosed with MDD (major depressive disorder). In the group of patients with BD, 5.3% had a current episode of mania or hypomania, and 29.5% had an episode of major depression. In the MDD group, 55.5% of patients had a current episode of major depression. The study results showed that In the group with BD, in contrast to the group with MDD, differences in the frequency of this problem were found depending on gender - it was more common in men (19.5%) than in women (7.8%) ($p = 0.003$). Importantly, in 71% of respondents, mood disorders were preceded by problems with gambling. Importantly, risk factors for gambling addiction were identified from the clinician's point of view. These include anxiety disorders coexisting with mood disorders (odds ratio 1.96, 95% CI 1.02-3.75), obsessive-compulsive disorders (1.86, 1.01-3.45), specific phobias (2.36, 1.17-4.76), alcohol addiction (5.73, 3.08-10.65) and ever addiction to psycho-active substances (2.05, 1.17-3.58). People with gambling problems were also characterized by a lower quality of life and a higher risk of suicide (2.06, 1.18-3.58). The study's authors also assessed the populations addicted and not addicted to gambling in terms of personality. It turned out that gamblers were highly neurotic and low in openness, agreeableness, and conscientiousness. In the populations of patients with BD and MDD, there was a higher incidence of gambling addiction than in healthy people. It was strongly associated with addiction to psychoactive substances and anxiety disorders. Consequently, the diagnosis of BD or MDD should be associated with the simultaneous search for concomitant gambling addiction. It should also be remembered that gamblers often suffer from a lower quality of life, which affects their mental, social and professional well-being, and the lack of a clinician's intervention is a significant obstacle to recovery [50].

At a particular stage - the desperation phase by doctors - he has severe problems with his work, his private, closest relationships are falling apart, and he also permanently lacks money, so he becomes indebted, which usually keeps growing. A typer tries to avoid all these consequences, most often gambling again - he bets more and more often and for higher and higher stakes, or, apart from bookmaking, he decides to play a game of chance to isolate himself more effectively from reality. Isolation does not, however, make the gambler lose awareness of their problems. On the contrary, any deep escape is evidence of increased stress and guilt, sometimes even panic coupled with helplessness. Some addicted tipsters may become depressed, others break the law, and others think about suicide. People addicted to bookmakers may develop depression when their excessive weakness towards gambling deepens and the so-called stage of desperation. This is when addiction causes numerous negative consequences that are becoming more and more difficult to deal with. The emerging then: stress, guilt, helplessness, and depression can cause depression. The gambler needs outside help, drugs, and therapy [51].

The objective of this study Rizeanu [52], was to explore whether there was a correlation between gambling and depression in a sample of 119 adults who joined the Responsible Gaming Project in Romania. The results show that pathological gambling is associated with depression. Out of 119 pathological gamblers, 76.47% were found with different symptoms of depression; 28.57% presented mild depression, 34.45% moderate depression, and 13.45% severe depression. Furthermore, during the pathological gambling treatment offered within The Responsible Gaming Project, from the original group (N=119), only 53% of the subjects (N=63) remained within the program until the end. The final sample was divided into two groups based on the original SOGS scores. Group 1 (N=28) had subjects with SOGS scores equal to or above 10 points, and the second group (N=35) had subjects with SOGS below 10 points. The Beck scores of pathological gamblers were positively correlated with pathological gambling, as indicated by the South Oak Gambling Screen - SOGS scores. Therefore, a correlation between depression and gambling symptoms was found between the 2 study groups [52].

The study Hudul and Adina Karner-Huțuleac [53] was conducted on a sample of 920 persons in the general population. Results show that depression predicts gambling in the proportion of 26.3 percent, while anxiety predicts 31.5 percent of gambling variance.

The researchers surveyed 282 Australian adults from the study by Vaughan and Flack [49] who gambled at least once per month gambling to escape or for excitement did not help explain the relationship between depression and gambling. The relationship between depression and problem gambling was also not influenced by levels of gambling for excitement. However, high and average levels of gambling to escape influenced the relationship between problem gambling and depression. Furthermore, among people who gambled to escape, those with more symptoms of depression had more severe problem gambling. These results suggest that people who are experiencing depression and gamble to escape may be at increased risk of problem gambling [49].

MEDICAL MARIJUANA AND DEPRESSION

Ongoing studies prove the beneficial effect of medical marijuana on psychiatric disorders, including anxiolytic and antidepressant effects. The substance responsible for this is believed to be cannabidiol (CBD), which belongs to the group of cannabinoids (similar to THC) contained in the cannabis plant. Unlike THC, it has no psychoactive properties [54].

Preclinical studies have shown that when given to animals (rats), cannabidiol produces an antidepressant effect similar to that of the classic classes of antidepressants. CBD seems to bind to serotonin receptors (5HT1A) [55-58].

Stoner [59] emphasizes that "*In summary, the effect of marijuana on depressive disorders is complex. The endocannabinoid system appears to play an important role in regulating mood, at least in part via highly interactive stress and reward networks. Marijuana has long been associated with diminished motivation, but a distinct "cannabis a motivational syndrome" has yet to be substantiated. The two primary active ingredients of marijuana, THC, and CBD, appear to have antidepressant-like effects in animal models at certain doses but not in others. While a slight majority of MM users report using marijuana for depression and generally find it helpful for that purpose, some evidence suggests that reductions in marijuana use by those with depression may reduce depressive symptoms. Studies examining whether marijuana use is associated with an increased likelihood of the development of depression have produced mixed findings. In some studies, associations have not remained when other variables associated with depression and marijuana use were considered. One reason for equivocal findings may be that individual differences, such as temperament, affect the relationship between marijuana and depression. Some marijuana users with or prone to depression do appear to benefit from using marijuana. However, well-controlled studies indicate that marijuana use is associated with the development of substance use disorder*" [59]

Cuttler and al [60] published a study in which they analyzed 11,953 tracked sessions (3,151 for depression, 5,085 for anxiety, and 3,717 for stress). Medical marijuana users saw a 50% reduction in depression and a 58% reduction in anxiety and stress after consuming marijuana. Two puffs were sufficient to reduce depression and anxiety scores, while 10+ puffs resulted in the most significant stress reduction. Cannabis with high CBD (> 9.5%) / low THC (<5.5%) was associated with the most significant changes in depression rates. In comparison, cannabis with high CBD (> 11%) / high THC (> 26.5 %) caused the most significant changes in stress reduction. The authors conclude that cannabis reduces perceived negative affect symptoms in the short term, but continued use may worsen the underlying symptoms of depression over time [60].

SUMMARY

Many factors can cause addiction symptoms to come back, including depression. On the one hand, people struggling with depression often use various substances (e.g., drugs and alcohol) to get rid of the depressive feelings they experience. On the other hand, substance abuse can often lead to depression, thus starting a wrong cycle of substance use and subsequent mood disorders. Depression also puts the patient at greater risk of suicide, as does substance abuse, and the combination of these two puts the risk of suicide dramatically increasing. While people with depression have a 10% chance of killing themselves, the risk rises to 25% for people with depression people. Therefore, it is essential to recognize the signs of depression in people undergoing addiction treatment, as the consequences can be serious. It is estimated that about 40% of people suffering from depression have thoughts of suicide. Often a person, e.g., a drug user, can no longer live in the surrounding reality and therefore escapes into addiction. Depression is very destructive for a person and his functioning, while when it is associated with drug addiction, the states of depressed mood are much more profound. It has been shown that patients with endogenous depression had a higher risk of suicide than those who developed depression due to alcohol use. In the first group, the frequency of suicide attempts reaches 30%, while in the second - 24% [61]. Among people with depression confirming the presence of suicidal thoughts, their greater severity was found in addicted patients than those without a history of harmful alcohol use [62].

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Acknowledgements
The author would like to thank those who participated in our study.

Conflıcts of ınterest
The authors have declared no conflict of interest

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