PSYCHOTERAPIA 1 (188) 2019
pages: 75–91
DOI: 10.12740/PT/108617

Barbara Bętkowska-Korpała[1], Robert Modrzyński[2], Justyna Kotowska[1,3],
Katarzyna Olszewska[1], Jolanta Celebucka[4]

# DIAGNOSTIC INTERVIEW ON ALCOHOL USE DISORDER – DSM-5 CLASSIFICATION IN THE CONTEXT OF ADDICTION TREATMENT CHALLENGES

[1] Department of Medical Psychology, Medical College of the Jagiellonian University, Kraków, Poland
[2] Maria Curie-Skłodowska University, Lublin
[3] Department of Forensic Psychiatry, Institute of Psychiatry and Neurology, Warsaw, Poland
[4] Ambulatory Treatment Center of the Provincial Dependence Treatment Clinic in Torun, Poland

**Alcohol Use Disorder**
**DSM-5**
**goals of treatment**

**Summary**

The criteria for the diagnosis of alcohol use disorders according to the DSM-5 classification concern many areas of human functioning and are part of the generally accepted biopsychosocial context, which is reflected both in the diagnostic as well as in the treatment process. Assessing the severity of the alcohol use disorder (AUD) and its mechanisms is crucial for setting objectives and implementing a targeted psychotherapy. The State Agency for the Prevention of Alcohol-Related Problems recommends therapeutic programmes aimed not only at abstinence but also at reducing drinking. Therefore, programmes of the detoxification treatment system in Poland are dedicated to people with diagnosed severe, moderate, or mild AUD. The aim of the article is to present diagnostic criteria for alcohol use disorders according to the DSM-5 classification. Detailed attention has been paid to the clinical picture of alcohol use disorders and the complexity of its biopsychosocial mechanisms. Also considered are suggestions for diagnostic questions and answers that can make it easier for professionals to assess the AUD and determine the direction of psychotherapy.

## Introduction

The concept of alcohol use disorder (AUD) is in line with the generally accepted biopsychosocial model used both in the diagnosis of alcohol abuse problems and in the psychotherapy of those concerned. The disorder has a relapsing-remitting presentation and its course depends on the interaction of various biological, psychological, and social factors [1, 2].

The development of various fields of science and methodologies contributes to the development of knowledge about biopsychosocial mechanisms of alcohol use disorders (AUDs) and to the effectiveness of their treatment. The integration of this interdisciplinary knowledge,

as well as the conclusions of studies such as the NESARC epidemiological study [3], have allowed determining the heterogeneity of the group of individuals abusing alcohol and the variability in the extent of alcohol use in different periods of life. Moreover, this knowledge has allowed for the redefinition of the AUD problem, which has translated into a change in the criteria for the diagnosis of this disorder and has paid particular attention to the assessment of its severity [4]. The new conceptualization of AUD has contributed to the development of therapeutic programs and the formulation of various therapeutic goals. In the medical classification ICD-10, as well as in the current classification of mental disorders and diseases DSM-5, diagnostic criteria of alcohol problems are categorical, *i.e.* it is assessed whether a given symptom is present in the person diagnosed, or not. However, in DSM-5, the intensity of the alcohol use disorder can be assessed on the basis of the number of AUD criteria met. In this context, a dimensional approach is taken into account in this model [5].

In the Polish system of alcohol dependence treatment, the psychotherapeutic offer has been extended in the last decade. Besides the approach oriented towards maintaining alcohol abstinence, patients benefit from alcohol consumption reduction programmes. Differentiation of psychotherapeutic interactions is consistent with the model of stepwise care, takes into account many aspects of biopsychosocial functioning of the patient, such as: state of the patient's mental and somatic health or their readiness to pursue psychotherapeutic goals [6]. It may be challenging for clinicians to steer the patient properly in the therapeutic work related to setting the goal of abstinence or limitation of drinking. In order to choose the path of interactions, it is necessary to precisely diagnose the patient's alcohol problem and assess their overall functioning. In many countries, including Poland, abstinence is seen as the optimal goal. However, in the case of persons with low intensity of alcohol use problems, an impact aimed at reducing drinking is advisable [6, 7]. The proposal of therapeutic work with the programme on drinking reduction or abstinence is conditioned not only by the patient's readiness but first of all by the nature and intensity of AUD symptoms.

The aim of this paper is to present a tool for diagnosing alcohol use disorders, which is the DSM-5 classification. Four dimensions of AUD according to DSM-5 are discussed: impaired control, social functioning impairment, hazardous use of substances, and pharmacological criteria. The detailed description of the diagnostic categories reflects the richness of the clinical picture of alcohol use disorders and the complexity of their biopsychosocial mechanisms. Also, suggestions of diagnostic questions and patients' answers are included, which will make it easier for specialists to assess AUDs.

The dimension of **impaired control** is considered the most important in alcohol use disorders. It covers the first four symptoms, which concern impaired control over substance use and relate to the experienced craving for alcohol and the ability to control drinking. The clinical significance of this symptom is reflected in the first three diagnostic criteria of DSM-5 [5]. Table 1 presents a description of symptoms belonging to the first diagnostic dimension of alcohol use disorders according to DSM-5, *i.e.* impaired control. The authors of this text have included suggestions of exemplary diagnostic questions which help to recognize the presence of these symptoms, as well as possible answers and comments.

Table 1: **First diagnostic dimension of alcohol use disorders according to DSM-5: Impaired Control with exemplary diagnostic questions, answers, and comments**

| | |
|---|---|
| Criterion 1 | Alcohol is often taken in larger amounts or over a longer period than was intended |
| **Question 1** | **How often do you get drunk or hear from others that you are drunk?** |
| Answer | "Sometimes. Only my wife keeps telling me that I drink too much." |
| Comment | The authors of the DSM emphasize that – in order to confirm a given symptom – it is necessary to establish a fixed pattern of intense drinking, *i.e.* excessive consumption of alcohol. A person with alcohol use disorder spends a lot of time drinking alcohol. He or she often starts with small amounts of alcohol on a given day and then drinks more than they intended to. |
| **Question 2** | **Do you spend more time drinking alcohol than you used to?** |
| Answer | "I like to sit and relax over a beer." |
| Comment | Drinking large amounts of alcohol should not be equated with impaired control. First of all, it is worth checking whether the person exceeds the WHO weekly norms for low-risk drinking and also whether the amount of alcohol and time spent drinking alcohol has increased. |
| Criterion 2 | There is a persistent desire to drink alcohol or accompanying unsuccessful efforts to cut down or control alcohol use |
| **Question 1** | **How often do you drink more alcohol than you intended?** |
| Answer | "When I start drinking, I am sometimes surprised how quickly the alcohol has disappeared from the bottle." |
| Comment | A person with alcohol use disorder wants to control their alcohol use and repeatedly makes unsuccessful attempts to take control of their drinking. He or she tries to stop drinking, reduce the amount of alcohol they drink or sets themselves different rules concerning the control of drinking. |
| **Question 2** | **How often is it difficult for you to stop at a set limit when you start drinking?** |
| Answer | "When I drink two beers, I often feel like drinking more and more." |
| Comment | The patient does not always get drunk in situations when he or she starts drinking. Attention should be paid to the dysfunctional beliefs underlying the decision to continue drinking and the growing need to drink, *i.e.* the craving for alcohol. |
| Criterion 3 | A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects |

| | |
|---|---|
| **Question 1** | **Do you sometimes drink alcohol during your work or in other everyday life situations?** |
| Answer | "I always drink alcohol in the afternoons when I prepare dinner, nobody is home yet, and I have some spare time." |
| Comment | People who drink alcohol most often do not give up other activities while being under its influence. Alcohol is legal and easy to obtain. Alcohol use disorder means spending a lot of time drinking. |
| **Question 2** | **How often do you hide the fact that you have been drinking alcohol?** |
| Answer | "I often get the impression on Mondays that colleagues at work know about my drinking." |
| Comment | The alcohol drinking pattern starts to cause negative consequences, which forces the person to try to avoid or mask them. |
| Criterion 4 | Craving, or a strong desire or urge to use alcohol |
| **Question 1** | **How often do you feel the urge to drink alcohol?** |
| Answer | "Sometimes when I am peeved, I would like to drink right away." |
| Comment | Drinking is associated with the process of learning by associating simultaneously occurring stimuli. The reward system is also being activated by the release of dopamine. This manifests itself as a strong desire or need to use a substance. It can occur at any time but most often while the person is in an environment where alcohol is being drunk. The occurring need is such strong that the person cannot think of anything else. |
| **Question** | **How often do you drink alcohol in situations of annoyance, anxiety, or joy?** |
| Answer | "When I get home and have nothing to do in the evening, I open a beer." |
| Comment | It should be investigated whether there is an established pattern of behaviour, which results in intrusive thoughts and dysfunctional beliefs, leading to perceiving alcohol-related situations as situations which impede abstinence maintenance. |

Impaired control over drinking is most often defined as a failure in the ability to reduce drinking, both in terms of controlling already started drinking and avoiding alcohol. It is worth mentioning that ineffective attempts to avoid or completely stop drinking are a relatively less frequent phenomenon of impaired control than difficulties in controlling the time and amount of alcohol consumption [8].

Impaired control is a phenomenon affecting the mental processes of a person, which limits their ability to control their alcohol-related behaviour in specific situations. It usually starts with making **impulsive decisions about increasing the amount of drunken alcohol or the frequency of drinking**. An established pattern of such behaviour results in negative consequences in the future. It forces the person to avoid situations related to drinking or to undertake complete abstinence. Further failures on this level result in a **deepening inability to**

**discontinue the already started drinking** [9, 10]. In the diagnosis of AUDs, it is also important to observe symptoms of **using more alcohol and devoting more time to drinking**. Assigning the commonly understood "loss of control" only to people who, after drinking a small amount of alcohol, get drunk or cannot stop drinking is a big mistake.

**Experiencing alcohol cravings** is an important part of alcohol-related disorders. Many people at the beginning of their treatment or in the process of relapse confirm a strong, intrusive need to drink [11, 12, 13]. Craving for alcohol as a subjectively experienced phenomenon is extremely difficult to define. In clinical practice, many patients may deny its occurrence or have difficulties in recognising it due to the strong emotions experienced during the initial period of abstinence maintenance [14].

Although there are many theoretical concepts of alcohol cravings, the most common concept of craving used by both patients and clinicians refers to the strong need to drink alcohol.

A common problem is to distinguish between the diagnostic dimension of alcohol cravings and the need to drink among moderate drinkers. There are few studies directly assessing the accuracy of this symptom as a diagnostic criterion according to DSM-5. Some confirm the occurrence of cravings in the continuum of alcohol use disorders only at the moderate or severe level (see above). Many people who experience problems related to alcohol consumption report experiencing a strong or persistent, difficult to control need to drink alcohol. It may appear many times a day or last for several hours [5, 15]. It is known that experiencing severe cravings is associated with increased alcohol consumption and consequences resulting from it, such as depression, shame, deteriorating health and neglected appearance, deteriorated relationships with others or problems at work [16, 17].

The complex nature of alcohol cravings is reflected in DSM-5 in two symptomatic criteria relating to separate areas of experience. Unfortunately, the authors do not differentiate the symptoms precisely. From scientific studies and earlier publications on the emerging classification of DSM-5 it can be concluded that persistent desire refers to a long-lasting intention to drink, from which a person has repeatedly been unable to refrain [4, 15-18]. The craving for alcohol, included in criterion 4, manifests itself as a strong desire to drink. It is connected with classical conditioning and also with the activation of the reward system through the release of dopamine. It may occur in circumstances where alcohol is being drunk. This need becomes intense and is accompanied by intrusive thoughts about drinking alcohol.

It seems reasonable to ask about the **causes and mechanisms** underlying impaired control. Why is it difficult for some people to stay within the limits of low-risk drinking? From the very beginning, control impairment has been correlated with the activity of the dopamine system and the ability to regulate emotions [19, 20]. Scientists agree that impaired control is caused by increased responsiveness to alcohol-related stimuli, which is related to dysfunction of cortical areas such as the insula [21]. Studies concerning genetic aspects have confirmed that dependence in the family of origin is a risk factor which increases the likelihood of alcohol use disorders. The genes *OPRM1* and *DRD2* have been identified to be possibly associated with the difficulty in reducing drinking [8]. Attempts to identify individual genes have indicated a strict association between impaired control and neurobiological dysfunction and/or alcohol use disorders in the family of origin [22].

To sum up, impaired control is a more complex phenomenon, often underestimated by specialists. The first symptoms of alcohol use disorders appear in their early stages, before the person experiences serious consequences. The diagnostic and therapeutic challenge is to be able to recognise the signs of a deepening process of control impairment before it reaches the form of a severe irreversible disorder.

**The second dimension** of the symptoms of alcohol use disorders relates to the presence of social problems resulting from alcohol abuse. Already in the 1950s, the role of social functioning of problem drinkers was stressed. Shortly afterwards, in 1956, the American Medical Association made a decision to qualify alcoholism as a disease, thus departing from the understanding of this phenomenon in the criteria of moral disturbances.

Analysing the functioning of an individual in society, one can see a change in the pace of life and the need for him or her to reconcile many social roles, which at the same time increases tension and forces the need for its rapid reduction. Drinking alcohol is undoubtedly a quick and quite easy way to achieve a state of relaxation or pleasure.

The fifth, sixth and seventh criteria refer to the spheres of individual life which are related to social and emotional functioning (Table 2).

Table 2: **Second diagnostic dimension of alcohol use disorders according to DSM 5: Social Functioning Impairment with exemplary diagnostic questions, answers, and comments**

| | |
|---|---|
| Criterion 5 | Recurrent alcohol use resulting in a failure to fulfil major role obligations at work, school, or home |
| **Question 1** | **What occupational difficulties do you experience as a result of drinking? Please try to describe them referring to the last 12 months.** |
| Answer | I did not go to work on some Mondays, but besides this, I am a good employee and I do not neglect my duties. |
| Comment | The patient links his/her alcohol consumption with absenteeism at work. It should be remembered, however, that determining the impact of drinking on the quality of work has a high diagnostic value. Therefore, it is worth asking about delays to work, leaving work early, poor productivity, difficulties with concentration, which translate into the quality of the performed duties. |
| **Question 2** | **Do your household members report that you neglect your household duties because of drinking?** |
| Answer | Sometimes I would rather relax over a bottle than work in the garden or do something at home. There is always something to do at home, but I also need time to relax after work. After all, there is nothing bad in that I relax over a bottle of beer after a hard working day. |
| Comment | This response suggests that the patient receives various messages about neglecting his or her duties because of drinking. Due to the tendency to minimize harm, the patient does not notice that the damage in the family sphere is the result of him or her drinking alcohol. It should be remembered that patients may experience various difficulties in the family and the professional sphere. It is important to investigate those that remain in the causal link with alcohol consumption. |
| Criterion 6 | Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol |
| **Question 1** | **You said that your relationships at home have deteriorated due to your alcohol consumption. What did your drinking look like after the quarrels?** |

| | |
|---|---|
| Answer | My family overreacts, they keep picking on me. After all, I do not do anything wrong to anyone. I work, so I think I have the right to drink a beer after a whole working day. After these quarrels, I started drinking in secret, sometimes in the garage, sometimes on my way to the shop. Without those scenes, this would not be the case. |
| Comment | The patient does not see the cause and effect relationship between drinking alcohol and deteriorating relationships in their family. In interpersonal relations, he or she blames others for the arising difficulties. |
| **Question 2** | **You said that lately, your employer pointed out that you were behaving worse at work and that you smelled of alcohol on Monday. Shortly afterwards, you received an ultimatum at work that if anyone notices you smell of alcohol at work again, you will be fired. How did your drinking look like after this event?** |
| Answer | Sometimes I am nervous at work and my boss has already paid attention to this, but I never drink alone. That day, when my boss felt me smell of alcohol, my friends have come to visit, unexpectedly. I never drink so much myself on Sundays. Now I try not to drink on Sundays. In the beginning, after this warning, I did not drink at all, but then I thought, on Friday or Saturday it will not hurt anyone. It happened once again on Sunday, but my boss didn't notice anything, I did a lot of work on Monday. |
| Comment | Despite the obvious harm to his or her professional life, which results from drinking alcohol, the patient returns to consumption with time. Despite the developed system of justifying situations in which he or she loses control over drinking, he or she is aware of the harm to their professional life resulting from drinking alcohol, and yet the patient repeats this risky behaviour. |
| Criterion 7 | Important social, occupational, or recreational activities are given up or reduced because of alcohol use |
| **Question 1** | **What gives you a feeling of pleasure nowadays and what did some time ago? How do you reward yourself after a hard day at work?** |
| Answer | Recently, there are not many things that make me feel relaxed. I turn on my computer, take a beer, and play a game or watch movies. I used to go for walks or cycling more often but now I don't want to any more, I prefer beer and my computer. |
| Comment | The patient notices a change in the way he or she spends their free time. Currently, he or she reduces their past activities to relax while drinking alcohol. |
| **Question 2** | **What are your hobbies? How much time have you spent on them during the last year?** |
| Answer | I used to like books – I have always read books or newspapers after putting the children to bed. Now I don't feel like it anymore. I prefer to have a drink and go to sleep or watch a TV show. |
| Comment | The patient sees a change in their interests. Currently, he or she limits their relaxation after hard work mainly to drinking alcohol. There is a gradual loss of interests in favour of drinking alcohol. |

The fifth symptomatic criterion relates to the relationship between **alcohol consumption and the fulfilment of important duties**. Analyses unequivocally indicate a linear relationship between the increase in alcohol consumption and a comprehensive evaluation of the quality of work performed [cited in: 23]. Studies carried out in workplaces have shown that higher alcohol consumption by employees has an impact on delays to work, early leaving from work, reduced productivity, or inappropriate behaviour that builds up tension in the team. The results of research do not clearly show the impact of alcohol on absenteeism at work. It can thus be concluded that there is a strong relationship between alcohol consumption and work quality rather than absenteeism. The implication for the therapeutic practice is to place more emphasis in the interview with the patient and to diagnose the impact of his or her drinking on the quality of his or her work duties and productivity rather than on his or her absence from work due to alcohol consumption. The described symptom also refers to neglect, as a result of alcohol consumption, in the performance of various basic household or social duties, which in turn leads to conflicts and quarrels. For the correct assessment of symptom 5, it is necessary to demonstrate serious difficulties in performing duties as a result of repeated alcohol consumption. Single episodes of evasion at work, school, or home are not sufficient to meet this criterion. It should be stressed that this criterion regards cyclical drinking of alcohol which results in neglect of basic duties. For an employee, this will be negligence resulting in deterioration of the quality of their work or even dismissal from work, for a student, neglect of duties that will result in a reduction in grades or lack of promotion, and for the closest family, serious evasion of duties leading to the deterioration of relations with relatives (including children).

Within criterion six, the awareness of harm in the social area resulting from alcohol consumption is important. This is of importance because problem drinkers do not always realize the harm resulting from their consumption. An incomplete orientation as to the relationship between drinking and problems in functioning may result from many cognitive deformations occurring in problem drinkers. The most common deformations developing together with the deepening alcohol problem include: rationalizing, shifting responsibility, colouring memories.

The examination of the symptom in question is staged (Fig. 1). First of all, it should be established:

- whether the patient has knowledge about the harmful effects of drinking alcohol on his or her functioning,
- whether he or she is suffering from a disease, and whether he or she has been informed by their physician about the need to discontinue drinking because of their disease,
- whether the employer, family, or relatives of the drinker have talked about problems in everyday life resulting from drinking alcohol by the patient [24].

Secondly, it should be examined whether the patient perceives a direct link between alcohol consumption and social harm. Thirdly, whether, despite being aware of the negative impact on his or her social functioning, the patient continues to drink.

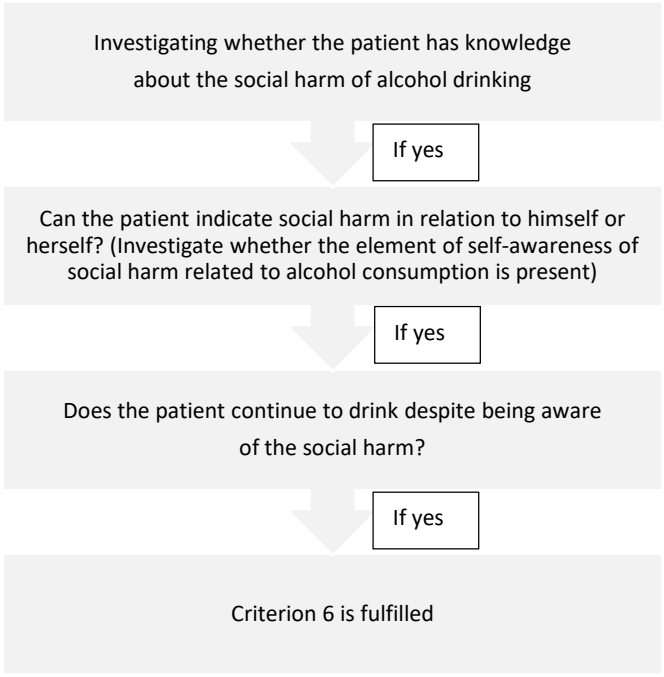


Fig. 1. **Diagnosis process in the area of criterion 6 (own study)**

Drinking alcohol may, in this case, be a constant behaviour, which means that the damage resulting from drinking is continuous or periodic. The social harm may be of different nature (as in criterion five), however, in order for this criterion to be fulfilled, it has to be established that the patient continues to drink despite being aware of the harm.

Criterion seven refers to the progressive changes in the lifestyle of a drinking person, consisting of weakening existing significant interests in favour of alcohol consumption. It is important to know the main areas of the patient's activity when gathering information about him or her. Additionally, it is necessary to examine whether, as the process of alcohol consumption deepens, the person devotes less time, attention, or effort to maintain this activity. Previous ways of coping with difficult situations, ways of rewarding oneself, may become less and less attractive, less accessible and may be a source of less pleasure.

In conclusion, as the use of alcohol increases, the problems of social functioning become more and more acute. Individual criteria included in the social dimension allow for precise determination of the nature of damages on professional, family, school, and recreational levels. Also important is, to what extent the patient is aware of the social harm resulting from alcohol consumption.

**The third dimension** relating to hazardous alcohol use includes two symptomatic criteria. Criterion 8 refers to repeated drinking in situations in which it is physically hazardous and criterion 9 relates to continuing drinking despite being aware of the existence of persistent or recurring somatic or mental problems which have been caused or exacerbated by drinking. The authors of the DSM-5 classification emphasize that in assessing this aspect of alcohol use, it is the **failure** to discontinue alcohol consumption despite the problems and harm caused by this substance that is most important, not the mere occurrence of the problem (Table 3).

Table 3: **Third diagnostic dimension of alcohol use disorders according to DSM-5: Hazardous Alcohol Use with exemplary diagnostic questions, answers, and comments**

| | |
|---|---|
| Criterion 8 | Recurrent alcohol use in situations in which it is physically hazardous (e.g. driving a car or operating machinery by a person under the influence of alcohol) |
| **Question 1** | **Tell me about a situation or situations in which you were doing something after drinking alcohol that you later regretted?** |
| Answer | "I hate to admit it now because I have never been in such a situation before. A month ago I got behind the wheel after a drink or two. My partner asked me to call a taxi, but I just yelled at her and we went home. I don't remember it, but my partner mentioned that at some point I got lost in my thoughts and hit a wall with our reflector. Fortunately, it ended up with a minor repair in a repair garage. Now I wish I'd listened to her and I'm sorry that we had this fight." |
| Comment | One of the typical behaviours that cause harm to both the drinker and his or her loved ones is drink-driving. There is no safe dose – every level of alcohol in the blood immediately impairs a driver's skills. At increased risk of harm and injury are people who usually drink little amounts of alcohol but sometimes drink a lot of it. |
| **Question 2** | **Please describe a situation in which you have engaged in behaviour that is hazardous to your health while under the influence of alcohol.** |
| Answer | "I remember having had one beer one afternoon when I was pregnant with my first child. It was so hot this day... this caused me to fall asleep, so I forgot about the appointment with my physician that afternoon. The next day I called the registration and I had to make up some excuses for them to get a new appointment." |
| Comment | There are some gender differences in the health state and alcohol use disorders. Women who abuse alcohol are more susceptible to somatic consequences than men. This is caused by the fact that in the female body there is more fat and less water. Moreover, they metabolise less alcohol in the esophagus and stomach. As a result, the blood alcohol level after a certain portion of alcohol is usually higher in women than in men, causing more negative health consequences. Another important element in this situation is the risk of prenatal damage and foetal alcohol syndrome in their child. At the same time, in both women and men, alcohol has a negative impact on cognitive functions, including memory and concentration. |
| Symptom 9 | Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol |
| **Question 1** | **Please think about it and tell me: what effect does alcohol have on your physical well-being, fitness, and physical condition?** |
| Answer | "I have noticed that on Mondays, after weekends at which I've been drinking with friends, I have poorer performance in my tennis training. I've also had stomach aches on Monday morning one or two times. It's probably the liver |

| | |
|---|---|
| | [*laughs*]. Maybe I should finally check my 'liver values'... I've been trying to do this for six months now but there's always something more important to do." |
| Comment | Negative health consequences of alcohol abuse can be short- or long-term. These include, among others, diseases and disorders of the digestive system (*e.g.* liver cirrhosis, pancreatitis). In the presented situation, pain in the abdominal cavity may result from chronic toxic effects of alcohol on the function and structure of organs. Postponement of control tests may contribute to the deterioration of health, physical condition, and efficiency. |
| **Question 2** | **What kind of difficult emotions do you experience after drinking alcohol?** |
| Answer | "I have noticed that I become more explosive under the influence of alcohol and I sometimes argue with others about things that are not really important. I often feel guilty afterwards and the next couple of weeks I try to avoid contact with people I have offended or hurt. As I now think about it, at least in half of the situations in which I have been drinking alcohol I finally felt depressed in a way that I found difficult to control. The euphoria and relaxation which I felt at the beginning passed quickly. Maybe these are signs of a recurrence of my depression?" |
| Comment | Abuse of alcohol can lead to emotional and psychological difficulties (*e.g.* depressive disorder, anxiety). Previous symptoms signalling mental difficulties may be exacerbated by the intake of this substance, and the greater the amount and frequency, the greater the risk. Alcohol has an inhibitory effect on the nervous system, as a result of which the level of criticism and control over emotional reactions decreases, and the tendency to react impulsively and inadequately with anger, sadness, or fear increases. |

Alcohol increases the risk of various types of disorders, both during short, as well as intensive contact with the substance. This is called the acute form of the effects of alcohol. Chronic effects are referred to as consequences of alcohol consumption over a longer period of time [25]. It is worth noting that the short-term and long-term effects of alcohol consumption may overlap to a significant extent. This depends on individual predispositions and susceptibility to specific diseases [23]. The risk of many serious diseases increases with the increase of the amount of alcohol consumed, and – what is more – previous studies have found no threshold below which alcohol consumption would have no impact on health [26-28]. Reports show that alcohol as a toxic substance is associated with more than 60 types of health disorders (physical and mental) with short- and long-term consequences [23]. These include, among others, neuropsychiatric diseases and disorders (*e.g.* epilepsy, sleep disorders), digestive system diseases (*e.g.* liver cirrhosis, pancreatitis), cardiovascular system diseases (*e.g.* hypertension, stroke, arrhythmias), metabolic changes (*e.g.* diabetes), cancer (*e.g.* laryngeal cancer, breast cancer), or prenatal damage. There are some gender differences related to health status and alcohol use disorders. Women who abuse this substance are significantly more susceptible to somatic consequences of abuse, *e.g.* liver disease. This is, among other things, due to the fact that they usually weigh less and their body contains more fat and less water. In addition, they metabolise less alcohol in the esophagus and stomach. As a result, the blood alcohol level after consumption of a given portion of alcohol is usually higher in women than in men, causing more negative health consequences [5].

In addition to somatic disorders, alcohol abuse results in mental difficulties (*e.g.* depressive disorders, anxiety, psychosis, post-traumatic stress disorder, suicide). There is evidence that independently pre-existing mental disorders may be exacerbated by the intake of the misused substance, and the greater the amount and frequency, the greater the risk. The symptoms of mental disorders caused by alcohol use may not differ in any way from those of independent mental disorders, but their treatment and prognosis are different [5].

It is also importantly noted that alcohol abuse accelerates brain mass loss and deteriorates brain functions, resulting in cognitive problems ranging from mild to moderate deficits to dementia. Alcohol consumption by young people may lead to changes in the structure of the hippocampus (responsible for memory processes, among others), and drinking it in large quantities may cause permanent impairment of brain development [23].

Physical damages and injuries are also mentioned among the harm associated with alcohol use disorders. It has been proven that alcohol consumption correlates with injuries and the risk of accidents, including death. People who usually drink very little alcohol, but sometimes drink a lot of it, are at a higher risk [29]. One of the typical behaviours that result in alcohol-related harm to the drinker is drink-driving. The risk of driving after alcohol increases with both the amount of alcohol consumed and the frequency of drinking large doses of alcohol on one occasion [30, 31]. A review of more than a hundred studies shows that every alcohol level in the blood immediately impairs a driver's skills [32].

In conclusion, it is worth stressing that reducing or discontinuing drinking has a beneficial effect on the physical and mental health of the alcohol-abusing person even in the case of chronic diseases such as cirrhosis or depression. Some of the damage caused by the toxic effects of alcohol can be almost immediately reversed and some can be eliminated by stopping using alcohol. Work aimed at changing the recurrent failure to discontinue or change the drinking style is one of the most important aspects of therapeutic support for alcohol abusers. A cornerstone of the recovery process is raising awareness of the association between alcohol abuse and permanent or recurrent physical or mental problems caused or exacerbated by alcohol consumption and awareness of the responsibility for change. The exemplary questions in Table 3 refer to those two criteria, which are related to situations of failure to discontinue using alcohol despite problems and health damage caused by the substance to the alcohol abusing person.

Another area of alcohol use disorders that has been identified by the authors of DSM-5 is the **pharmacological dimension**, which includes two criteria relating to neurobiological mechanisms. It is crucial for the diagnosis of alcohol use disorders [20, 33]. The tenth symptomatic criterion in DSM-5 concerns tolerance, while the eleventh criterion concerns withdrawal syndrome (Table 4).

Table 4: **Fourth diagnostic dimension of alcohol use disorders according to DSM 5: Pharmacological Criteria with exemplary diagnostic questions, answers, and comments**

| | |
|---|---|
| Criterion 10 | Tolerance, as defined by either of the following: a need for markedly increased amounts of alcohol to achieve the desired effect or a markedly diminished effect with continued use of the same amount of alcohol |
| **Question 1** | **Would you say that you now have a higher tolerance for alcohol than you used to have?** |

| | |
|---|---|
| Answer | "Some years ago (at the age of about 20 years), when I started drinking I didn't need much. After a quarter of vodka, I was already heavily drunk. Now (42 years old) I know I have had enough after half a litre." |
| Comment | The patient's tolerance to alcohol has increased over the last 20 years. In order to get drunk, the patient needs twice as much alcohol as he or she used to. |
| **Question 2** | **How much alcohol do you drink now to achieve the same effect as, for example, 3 years ago?** |
| Answer | "Well, I drink less. I feel worse. Last year, wine in the evening was normal. But now I can't do this anymore. I have one four-pack for two days. I drink about two beers and that's enough to feel the alcohol." |
| Comment | Considering standard portions, only one year ago the patient drank about 7.5 standard portions to obtain the state of pleasure associated with being under the influence of alcohol; currently, he or she drinks four. This answer allows for the recognition of a decrease in tolerance to alcohol. |
| Criterion 11 | Presence of characteristic withdrawal symptoms due to discontinuation of drinking or reduction of the alcohol dose or drinking/intake of substances with similar effect with the intention of relieving or avoiding withdrawal symptoms |
| **Question 1** | **Please describe me how you feel physically when you are not drinking alcohol, *e.g.* on the next day.** |
| Answer | "As if I was about to fall apart. Everything falls out of my hands, they are shivering that much. I have problems breathing and I run to the toilet all the time because..." |
| Comment | The patient lists a number of symptoms characteristic of alcohol withdrawal syndrome (AWS). The assessment of its severity is important because in some cases it may be life-threatening and requires pharmacotherapy or hospitalization. |
| **Question 2** | **Please tell me: what is your mental state when you do not drink alcohol, *e.g.* for a few days?** |
| Answer | "Everything makes me nervous, even when the children watch TV. I keep thinking that I would feel better if I had a drink. I can't focus on my work. I cry. I feel sorry for my children. After a few days, this nervousness disappears but I have problems memorising things." |
| Comment | The patient often tries to stop drinking alcohol and has several weeks of abstinence. The mental symptoms he or she notices are characteristic of alcohol withdrawal syndrome. Some neuropsychological disturbances resulting from the influence of alcohol on the brain, *e.g.* memory, focussing attention withdraw over a longer period of abstinence, but sometimes, permanent post-alcoholic brain damage may occur. |

The criterion of change in alcohol tolerance is present in ICD-10. A change in alcohol tolerance is defined as the need to increase significantly the amount of alcohol that is drunk in order to achieve the desired effect or as a reduction of the effect of alcohol after the intake of the same amount of alcohol. An additional aspect in DSM-5 is that it also draws attention to the decrease in alcohol tolerance. Already in the 1950s, Jellinek pointed out in the addiction cycle

model that after the increase in tolerance among addicted drinking patients, their tolerance decreases. He called this the critical phase [34]. Therefore, after half a century, we observe a return to the understanding of changes in tolerance to alcohol, also in terms of its decrease.

Analysing the presence of this symptom in people with an alcohol abuse problem, several important moments of its intensification can be identified. A person who abuses alcohol increases their tolerance, which usually occurs in a discreet way and is revealed when they drink more alcohol than in the past. No symptoms of acetaldehyde poisoning occur, which have previously been present when drinking the same amount of alcohol. The amount and frequency of alcohol consumption increase in order to experience the same effects as in the past. A high tolerance to alcohol is observed.

Tolerance increases over the years. However, at some moment, a person may get drunk with a smaller dose of alcohol and this is not an incidental case, *e.g.* related to fatigue. The ability of the body to adapt to the metabolism of alcohol decreases, that is, the degradation of the body progresses and its ability to defend against the toxic effects of alcohol are getting weaker and weaker. In extreme cases, such a person gets drunk many times during the day with small amounts of alcohol, in order to relieve the symptoms of alcohol withdrawal syndrome.

Another criterion (number 11) for the diagnosis of alcohol use disorders are **withdrawal symptoms**. They are characterized as a specific withdrawal syndrome (stimulation of the autonomic system, *i.a.*: increased sweating, tachycardia; hand tremors; insomnia; nausea or vomiting; transient hallucinations or visual, sensory, or auditory illusions; psychomotor stimulation; anxiety; generalised tonic-clonic seizures) and attention is being drawn to the fact that alcohol (or closely related substances such as benzodiazepines) is used to relieve the severity or avoid withdrawal symptoms. These symptoms cause suffering and/or hamper functioning.

The **withdrawal syndrome** is caused by the reduction or discontinuation of drinking, and the experience of its symptoms motivates a person to reach for alcohol again in anticipation of reducing psychosomatic tension or avoiding other very unpleasant symptoms [35, 36]. Every abuse of alcohol disturbs the functioning of the human body and causes symptoms of malaise, including headache, fatigue, dryness of mucous membranes, increased sweating, nausea, or vomiting, the day after drinking a non-standard (for a given person) dose of alcohol. This condition is commonly called “hangover”. From the medical perspective, these are symptoms of acetaldehyde poisoning, the excess of which has accumulated in the body of the drinker.

Distinguishing addicted people from social and excessive drinkers means the correct recognition of the body’s reaction to a drop in alcohol levels in their bodies. In non-addicted individuals, excess acetaldehyde is excreted gradually and the drinker consciously accepts the consequences of alcohol abuse. Usually, he or she tries to alleviate the feeling of malaise by drinking various liquids, eating light meals, or by physical exercises. They do not drink another portion of alcohol. In the case of addicted people, such procedures are no longer effective. The longer the time and amount of consumed alcohol and co-occurrence of somatic diseases, the heavier the course of addiction and the greater the intensity of withdrawal symptoms [37]. In addition, the increasing alcohol craving makes alcohol a natural means of “self-healing of the symptoms”, alleviating the experienced suffering and helping to achieve a relative balance for the “organism which is deregulated by abstinence” [38]. The higher the intensity of withdrawal symptoms, the more a negative emotional state is revealed, which may persist later during abstinence and increase the susceptibility to relapse [39, 40].

In some cases, “wedging” may be postponed [41] due to strong external pressure, such as control of sobriety at work, handling administrative business, or simply lack of access to alcohol. AWS can be a life-threatening condition. In some cases, attempts to reduce and/or discontinue

drinking may result in intensified psychophysical withdrawal symptoms. Complications such as convulsions or delirium may occur. In more severe conditions, illusions/delusions, alcohol delirium, alcohol withdrawal seizures appear. The assessment of the intensity of AWS symptoms directs medical management [37]. Studies on the course of alcohol use disorders and studies on the effectiveness of treatment help to redefine not only the mechanisms of addiction but also the therapeutic management [4].

## Conclusions

1. A detailed analysis of the criteria of AUD according to the DSM-5 classification facilitates the diagnostic interview and diagnosis of AUD and the assessment of its severity from mild to severe.
2. The diagnosis taking into account the dimensions proposed in DSM-5 allows for the assessment of the importance of alcohol use in the overall biopsychosocial functioning of the patient and optimal targeting in psychotherapy, which is aimed at abstinence or reduction of alcohol consumption.

## References

1. Cunningham JA, McCambridge J. Is alcohol dependence best viewed as a chronic relapsing disorders? Addiction 2012; 1: 6–12.
2. Bętkowska-Korpała B. Osobowościowe uwarunkowania dynamiki zdrowienia u osób uzależnionych od alkoholu. Kraków: Medycyna Praktyczna; 2013.
3. Dawson DA, Grant BF, Chou PS, Ruan WJ. Recovery from DSM-IV alcohol dependence: United States, 2001–2002. Addiction 2005, 100(3): 281–192.
4. Samochowiec A, Chęć M, Kołodziej Ł, Samochowiec J. Zaburzenia używania alkoholu: Czy nowe kryteria diagnostyczne implikują zmianę strategii terapeutycznych? Alkoholizm i Narkomania 2015; 28: 55–63.
5. DSM-5 Kryteria diagnostyczne zaburzeń psychicznych Amerykańskiego Towarzystwa Psychiatrycznego. Wrocław; Publisher: Edra Urban & Partner; 2017.
6. Fudała J. 2017. Poza paradygmatem abstynencji – ograniczanie picia alkoholu jako cel terapii. Warszawa; Publisher: Edukacyjne Remedium; 2017.
7. www.parpa.pl
8. Leeman RF, Beseler CL, Helms CM, Patock-Peckhan JA, Wakeling VA, Kahler ChW. A brief, critical review of research on impaired control over alcohol use and suggestions for future studies. Alcoholism: Clinical and Experimental Research 2014; 38(2): 301–308.
9. Leeman RF, Patock-Peckham JA, Potenza MN. Impaired control over alcohol use: an under-addressed risk factor for problem drinking in young adults. Exp. Clin. Psychopharmacol. 2012; 20(2): 92–106.
10. Wardell J, Quilty LC, Hendershot CS. Impulsivity, working memory, and impaired control over alcohol: a latent variable analysis. Psychol. Addic. Behav. 2016; 30(5): 544–554.
11. Iwanicka KA, Olajossy M. Koncepcje tzw. głodu alkoholu. Psychiatr. Pol. 2015; 29(2): 295–304.
12. Baggio S, Studer J, Dupuis M, Gerhard G. Subthreshold problem drinkers in DSM-5 alcohol use disorder classification. Am. J. Addict. 2016; 25: 408–415.
13. Takahashi T, Lapham G, Chavez LJ, Lee AK, Williams EC, Richards JE, Greenberg D, Rubinsky A, Berger D, Hawkins EJ, Merrill JO, Bradley KA. Comparison of DSM-IV and DSM-5 criteria for alcohol use disorders in VA primary care patients with frequent heavy drinking enrolled in a trial. Addict. Sci. Clin. Pract. 2017; 12(17), 1–10.
14. Haass-Kofler CL, Leggio L, Kenna GA. Pharmacological approaches to reducing craving in patients with alcohol use disorders. CNS Drugs 2014; 28: 343–360.

15. Morrison J. DSM-5 bez tajemnic. Praktyczny przewodnik dla klinicystów. Kraków; Jagiellonian University Press; 2016.
16. Murphy CM, Stojek MK, Few LR, Rothbaum AO, MacKillop J. Craving as an alcohol use disorder symptom in DSM-5: an empirical examination in treatment-seeking sample. Exp. Clin. Psychopharmacol. 2014; 22(1): 43–49.
17. Dulin PL, Gonzalez VM. Smartphone-based, momentary intervention for alcohol cravings amongst individuals with an alcohol use disorder. Psychol. Addict. Behav. 2017; 31(5): 601–607.
18. Agrawal A, Health AC, Lynskey MT. DSM-IV to DSM-5: the impact of proposed revision on diagnosis of alcohol use disorder. Addict. 2011; 106: 1935–1943.
19. Claus ED, Hutchison KE. Neural mechanisms of risk taking and relationships with hazardous drinking. Alcohol. Clin. Exper. Res. 2012: 36: 932–940.
20. Wojnar M, ed. Medyczne aspekty uzależnienia od alkoholu. Warszawa: PARPA, 2017.
21. O'Daly OG, Trick L, Scaife J, Marshall J, Ball D, Phillips ML, Williams SCS, Stephens ND, Duka T. Withdrawal-associated increases and decreases in functional neural connectivity associated with altered emotional regulation in alcoholism. Neuropsychopharmacol. 2012; 37: 2267–2276.
22. Kendler KS, Prescott C, Myers J, Neale MC. The structure of genetic and environmental risk factors for common psychiatric and substance use disorders in men and women. Arch. Gen. Psychiatry 20003; 60: 929–937.
23. Anderson P, Baumberg B. Alkohol w Europie. Raport z perspektywy zdrowia publicznego. Warszawa: PARPA; 2007.
24. Bętkowska-Korpała B, ed. Uzależnienie w praktyce klinicznej. Zagadnienia diagnostyczne. Warszawa; Educational Publisher PARPA; 2009.
25. Last J. A dictionary of epidemiology. Fourth edition. Oxford: Oxford University Press; 2001.
26. Anderson P, Cremona A, Paton A, Turner C, Wallace P. The risk of alcohol. Addict. 1993; 88: 1493–1508.
27. Anderson P. Alcohol and risk of physical harm. W: Holder HD, Edwards G, red. Alcohol and public policy: evidence and issues. Oxford: Oxford Medical Publications; 1995, p. 73–80.
28. Rehm J, Room R, Graham K, Monteiro M, Gmel G, Sempos CT. The relationship of average volume of alcohol consumption and patterns of drinking to burden of disease: an overview. Addict. 2003; 98: 1209–1228.
29. Watt K, Purdie DM, Roche AM, McClure RJ. Risk of injury from acute alcohol consumption and the influence of confounders. Addict. 2004; 99: 1262–1273.
30. Blomberg RD, Peck RC, Moskovitz H, Burns M, Fiorentino B. Crash risk of alcohol involved driving. National Highway Traffic Safety Administration. Dunlap and Associates, Connecticut; 2002.
31. Hongson R, Winter M. Epidemiology and consequences of drinking and driving. Alcohol Res. Health 2003, 27: 63–78.
32. Moskovitz H, Fiorentino D. A review on the literature on the effects of low doses of alcohol on driving related skills. Springfield, VA: US Department of National Technical Information Service, 2000.
33. Kostkowski W. Podstawowe mechanizmy i teorie uzależnień. Alkoholizm i Narkomania 2006; 19(2): 139–168.
34. Jellinek EM. Stadia nałogu alkoholowego. Now. Psychol. 1987; 3: 3–20.
35. Markou A, Kosten TR, Koob GF. Neurobiological similarities in depression and drug dependence: a self-medication hypothesis. Neuropsychopharmacol. 1988, 18: 135–174.
36. Habrat B. Farmakoterapia uzależnienia od alkoholu – aktualne standardy i perspektywy. Psychiatria 2011; 1: 48–51.

37. Habrat B, Waldman W, Stein Anand J. Postępowanie w alkoholowych zespołach abstynencyjnych. Przegl. Lek. 2012, 69(8): 470–476.
38. Hunt WA, Barnett LW, Branch LG. Relapse rates in addiction programs. J. Clin. Psychol. 1971; 27(4): 455–456.
39. Wojnar M, Ślufarska A, Klimkiewicz A. Nawroty w uzależnieniu od alkoholu. Część 3: Społeczno-demograficzne i psychologiczne czynniki ryzyka. Alkoholizm i Narkomania 2007; 20(1): 81–102.
40. Wojnar M, Ślufarska A, Lipiński M. Nawroty w uzależnieniu od alkoholu. Część 2: Biologiczne predyktory. Alkoholizm i Narkomania 2007; 20(1): 65–79.
41. Fudała J. Rozpoznawanie problemów alkoholowych pacjentów. Warszawa: Educational Publisher PARPA; 2007.

E-mail address: barbara.betkowska-korpala@uj.edu.pl