



Addictions in the Elderly – Review Article

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Abstract

Background: *Society in Poland and other developed countries is aging at an increasing rate, which is also reflected in the frequency of addiction among older people. This has social, health and economic implications, as older people are still active in the labor force today.*

Objectives: *The aim of this study is to review information on the problem of addiction to drugs, nicotine, alcohol and gambling in the elderly and to present the related difficulties in medical practice.*

Material and methods: *Review of publications on addiction among seniors included in the PubMed and Google Scholar database. The publications were collected between 2011–2021.*

Conclusions: *Addictions in older people are slightly different from addictions in younger age groups, so they should be considered separately. The elderly are particularly vulnerable to drug addiction. Seniors suffer from many chronic diseases; polypharmacy is often used to treat them. In addition, older people often struggle with insomnia and pain, which can lead to addiction to benzodiazepines and opioids. The physician plays a key role in the diagnosis and treatment of addiction in elderly patients, regardless of the type of addiction. In all cases of addiction, factors that predispose seniors to addiction should be taken into account. These are often modifiable factors, such as loneliness, a sense of rejection or inappropriate treatment of chronic diseases.*

Key words: *alcohol, gambling disease, nicotine, aging, polypharmacy*

Introduction

The progressive aging of society makes health problems related to alcohol, nicotine, drug or gambling addiction in the elderly a more critical issue than before, not only because of the negative impact on health, but also due to the social and economic consequences. Addiction is a problem that affects people of all ages. The essence of addiction is the loss of control over thinking and behavior, which leads to the constant search for contact with the specific substance by an addict [1]. The problem of addiction does not only concern people on the margins of society. Although it may seem that it does not apply to the elderly, there are addicts over 60 years of age. Despite the fact that drinking alcohol decreases with age, it is still a fairly common problem. American screening of the primary care population showed that 15% of men and 12% of women over the age of 60 drink above the recommendations of upper consumption of the National Institute of Alcohol Abuse and Alcoholism [2]. It is worth emphasizing that Polish society is aging, so the problem of alcoholism will be increasing. A similar situation will occur in other developed countries.

The problem of smoking is associated with premature mortality, and therefore the proportion of smokers in the elderly population may be lower. The Centers for Disease Control and Prevention (CDC) reports that in 2017, approximately 8 out of 100 adults aged 65 and over smoked cigarettes [3]. It is estimated that smoking reduces life expectancy by an average of 10 years, contributing significantly to premature mortality, i.e. an increase in the number of deaths in the population before reaching the conventionally defined old age threshold [4]. Seniors also very often struggle with drug addiction, especially opioids or benzodiazepines. This is a very unfavorable phenomenon taking into account the decreased drug metabolism in the elderly and a common phenomenon of polypharmacotherapy. Older patients take 3 to 8 drugs on average [5].

It is estimated that in developed countries, approximately 30–40% of people over 65 years of age take 5 or more drugs, while 12% of patients in this age group use 10 or more different drugs [6]. These are usually drugs

prescribed by doctors for chronic diseases, but there are also drugs that patients themselves buy at a pharmacy without a prescription. In addition, it is worth bearing in mind that the elderly are often persuaded to buy a drug or supplement through advertising. Seniors often experience pain due to progressive degenerative disease, pathological fractures, cachexia or cancer, and this in turn causes them to take opioids in over-programmed doses and thus with greater side effects [3, 7]. In old age, insomnia is a common problem, hence the widespread dependence of the elderly on benzodiazepines, which are overused and prescribed almost without limit. In seniors, these drugs increase the risk of memory impairment, falls, fractures and car accidents as well as avoidable visits to emergency departments and hospitalization [8]. Gambling Disorder (GD) is a persistent symptom of gambling activity, which for the majority of the general population may be an intermittent hobby. The common forms are casino games, slot machines and lotteries. Online gambling has grown in popularity in recent years as more and more people have constant access to the internet. The prevalence of gambling around the world ranges from 0.12% to 5.80% [9]. In the elderly population, these values are similar, and the large discrepancy in the range results from the lack of standardization of the research. Considering the aging of the population, as well as the SARS CoV2 pandemic, which may have contributed to the increase in the number of addicts, it is necessary to focus on the problem of addiction among the elderly. Therefore, this article discusses the most common addictions in seniors, their causes, consequences and ways of dealing with the problem.

Predisposing factors

Many factors contribute to the emergence of substance addiction disorders or behavioral disorders among the elderly. Some personality traits may increase the risk of addiction, e.g. impulsivity, low self-control and higher neuroticism. Due to the fact that risky behaviors make it easier to cope with anxiety, anger and low mood, negative emotionality also increases the likelihood of developing addiction [10]. An example of a tool used to assess

the relationship between specific personality traits and the type of addiction is the Minnesota Multiphasic Personality Inventory, the criteria of which include the presence of hysteria, anxiety, defensiveness, ego strength or hypochondria among the respondents. Also, personality disorders such as borderline personality disorder or antisocial personality disorder positively correlate with the tendency to use stimulants [11].

Social factors also play an important role in the emergence of addiction. The aging process is associated with numerous changes in this area of life, such as retirement, deterioration of health, and death of a spouse or other family members and friends. The aforementioned events contribute to the feeling of loneliness and social isolation among the elderly [12]. Due to their decreasing ability to control various life circumstances, the elderly may seek the feeling of control in the predictable feelings that accompany substance use [13].

According to a study conducted on the Polish population with the participation of people aged 60 and over, the COVID-19 pandemic also increased the number of elderly people feeling lonely and suffering from depression or anxiety disorders. Moreover, the feeling of loneliness was more intense in people living alone compared to those living with their family or partner, and the widowed and singles compared to people living in relationships. The feeling of loneliness is presented as a factor predisposing individuals to both mental and physical disorders, as well as increasing the risk of death [14].

Another study showed that single people, whether widowed, divorced or single, presented a greater severity of problems associated with gambling. For some older people, gambling was associated with the possibility of socializing with peers or family, and interestingly, people who were driven by a social motive showed a lower degree of addiction than people who treated it as a way to cope with loneliness. Moreover, living with children or a spouse was a factor protecting against risky behavior [12].

A characteristic feature of the elderly population is multi-morbidity, which is associated with chronic pain, polypharmacy and frequent hospitalizations may be associated with a tendency to abuse drugs such as benzodiazepines [15]. It is worth noting that with age, the likelihood of side effects

related to substance abuse also increases, because the hepatic metabolism changes in the aging process, and moreover, older people take more OTC drugs than people in younger age groups, which also increases the risk of interactions [15, 16]. Drug abuse may also result from a lack of knowledge and understanding of how a given drug should be taken [17]. Other factors that increase the risk of addiction in later life include male gender, secondary or lower education, lack of religious activity, stay in a long-term care facility or substance abuse earlier in life [17, 18].

The coexistence of many diseases also makes it difficult to distinguish symptoms of substance abuse from symptoms of depression, anxiety or complications of medical interventions. Also, the fact that the elderly usually abuse substances in their own home, drive vehicles less frequently and are professionally active reduces the likelihood of anyone in their environment noticing a problem [16].

Prescription drug addiction

Alcohol, opioids, and sedative and hypnotic drugs are the most common substances abused in the group of older adults [5, 19]. Drug abuse can be associated with a variety of circumstances. It can be initiated by inappropriate medication use, which over time may lead to its abuse. Conscious misuse of drugs, taking them in higher doses than recommended or mixing with alcohol is a much rarer phenomenon among the elderly [5]. Polypharmacy may play an important role in the use of psychoactive drugs by the elderly. In the study involving 3000 people aged 57–85, over 80% of the patients used ≥ 1 prescription drug daily and almost half of them used ≥ 5 drugs simultaneously [3]. According to the Drug Abuse Warning Network data from 2008, 61% of adverse effects of drugs occurred in people ≥ 65 years of age, while 25% of these episodes resulted from drug effects on the central nervous system [19].

It is important to understand that the metabolism of opioids and benzodiazepines differs between young and elderly subjects. Due to the decrease in both hepatic and renal function in the elderly, there is a risk of drug accumulation and its increased toxicity.

Benzodiazepines are very often used by the elderly and as many as 25% of all prescriptions for benzodiazepines are issued to people over 65 years of age. Moreover, in this age group benzodiazepines are often used for longer periods of time and the therapy is usually less controlled than in younger patients. Among the elderly, the daily use of these drugs for at least six months applies to up to 20% of patients. A quarter of the elderly patients have been taking benzodiazepines for more than a decade. As many as 30–40% of older adults in nursing care facilities use benzodiazepines. In the elderly, benzodiazepines are indicated primarily for short-term use in the treatment of anxiety and sleep disorders. The harmful, long-term use of these drugs often applies to patients with sleep and anxiety disorders as well as dementia. The dependence on benzodiazepines in the elderly may affect up to 20% of hospitalized patients and 30% in those diagnosed with depression, and it usually remains undiagnosed and therefore untreated. Benzodiazepine dependence in the elderly is usually characterized by constant intake of small doses of these drugs for a long period of time, and the development of tolerance and dose escalation are not common [20]. This is caused by decline in drug metabolism and its accumulation. However, the symptoms of addiction, including withdrawal syndromes, are observed in 50 to 100% of patients using benzodiazepines for a long period of time. Data on the treatment of dependence indicate that a withdrawal of substitute doses of benzodiazepines in patients ≥ 65 years of age is possible at a similar time as in younger people [21].

In 2008, opioid misuse was responsible for the largest number of deaths attributed to drug overdose. Due to the greater prevalence of pain, elderly patients are more likely to be prescribed opioids [22]. It is estimated that between 1992 and 2003, the number of Americans abusing prescription opioids increased from 7.5 million to 15.1 million. What is more, between 2000 and 2010, the number of accidental overdoses of prescription opioids increased almost four times [23]. According to estimates from 2005, the number of problematic opioid users in Poland was in the range of 25,000–29,000 people. In 2009, it was estimated that this problem affected 10,400–19,800 people in Poland. This suggests that the number of problematic opioid users in Poland decreased over the 4 years. A similar tendency has been observed

in most European countries [24]. Pain relief remains a primary motive for opioid abuse in older patients. Misuse of opioids is much less frequently caused by factors unrelated to pain management than in younger age groups [7].

The use of benzodiazepines and opioids in older adults may be associated with a number of risks, mainly cognitive and psychomotor impairment (Table 1). Long-term use of these medications increases the risk of fractures, traffic accidents and falls (Table 1) [22]. Benzodiazepines adversely affect cognition and increase the risk of dementia (Table 1). In patients with affective disorders and psychoses, benzodiazepines make the diagnosis of these diseases difficult and negatively affect their natural course [20].

A delayed diagnosis is a significant and common problem in addiction in elderly patients. Many complications of drug abuse in the elderly are explained by the patient's old age [21]. Addiction may have a similar clinical presentation to dementia or depression [22]. Late diagnosis may also be influenced by the fact that cases of substance abuse in older adults differ from the typical presentation of addiction in younger subjects. They use small, constant doses of medications for a long time and do not show the typical features of psychological dependence [20].

Alcohol

Alcohol Use Disorder (AUD) among elderly patients is a significant clinical problem because the effects of alcohol harm on the body of the elderly are much more severe than in the case of young people. As recommended by the National Institute on Alcohol Abuse and Alcoholism (NIAAA), both women and men over the age of 65 should not consume more than 1 standard drink daily or 7 standard drinks weekly. It is estimated that alcohol problems among the elderly concern 10–15% of patients in primary health care, 30% of patients hospitalized in general departments and approximately 50% of patients in psychiatric wards [25]. With age, muscle mass decreases and adipose tissue mass increases at the same time, which means that the high level of alcohol in the body persists longer. This is also caused by the reduced liver function, which hinders removing alcohol from the blood [2, 26]. Moreover, the neurons

of elderly patients are more susceptible to the toxic effects of alcohol. It is estimated that dementia is found in up to a quarter of seniors hospitalized due to alcohol addiction [2]. Alcohol also increases the risk of liver cirrhosis, pancreatitis, diabetes, osteoporosis, atherosclerosis, heart attack and cancer [26, 27]. Elderly patients may present atypical withdrawal symptoms with confusion predominant (Table 1). The onset of symptoms often begins several days after stopping drinking, and complications such as convulsions and delirium are more likely to be fatal than in younger alcoholics [2, 28].

Two groups can be distinguished among elderly patients with AUD. The first of them, accounting for approximately two thirds of geriatric patients with alcohol problems, are people who have been abusing alcohol since a young age. The diagnosis of addiction in these patients is generally easier due to the presence of multiple health problems resulting from long-term alcohol consumption. Patients from this group often have low socio-economic status, difficult family relationships, early job loss and conflicts with the law (Table 1). Difficulties in treating these patients often result from their refusal to admit that they have an addiction. The second group, which comprises approximately one third of elderly alcohol-abusing patients, includes those whose alcohol-related disorders started after the age of 65. The key role in this case is played by psychogenic and environmental factors, such as retirement, the loss of a spouse or receiving a diagnosis of a chronic illness. Health problems caused by the toxic effects of alcohol on the body are less severe than in patients with a long history of alcoholism, and therefore are often confused with the natural aging process. An uncharacteristic clinical picture, and the coexistence of depression, anxiety disorders and cognitive impairment, connected with a sense of shame and difficulty in admitting addiction, make the diagnosis more difficult in this group of patients (Table 1) [2, 28, 29].

There is a misconception among doctors that alcoholism is the domain of young and middle-aged people, and many specialists feel embarrassed to ask an elderly person about alcohol abuse. Consequently, most addicted patients are not diagnosed [25]. Meanwhile, the early detection of AUD enables the rapid introduction of appropriate treatment, thereby increasing its effectiveness and minimizing the damage to the body caused by long-term

alcohol abuse. Accordingly, it is important to know short screening tests for identifying alcohol use disorders. The Alcohol Use Disorder Identification Test (AUDIT), recommended by the World Health Organization, is a 10-question questionnaire which, depending on the number of points obtained, indicates low-risk drinking, hazardous drinking, harmful drinking and alcohol addiction [30]. The CAGE test consists of 4 short questions, where giving at least 2 affirmative answers implies serious alcohol problems [27]. However, the above tests are not specific to elderly patients, therefore the MAST-G (Michigan Alcohol Screening Test – Geriatric Version) test and its shorter version SMAST-G, which are characterized by high sensitivity and specificity in detecting alcohol problems in patients over 65 years of age, are recommended for elderly people [30, 31].

Treatment of AUD in elderly patients should be multidirectional, including not only pharmacological treatment, but also family support and participation in individual and group therapy. A 2018 study found that psychosocial treatment outcomes for alcoholism are better in patients over the age of 60 compared to those aged 40 to 59. It has been shown that the percentage of patients who achieved abstinence after 6-month therapy was 47.1% among older alcoholics and 35.4% among middle-aged alcoholics ($p < 0.01$) [32]. In the case of acute withdrawal symptoms in the elderly, short-acting benzodiazepines are used. It is not recommended to use long-acting benzodiazepines in this group of patients, because the decreased hepatic clearance at this age hinders the elimination of the drug from the body [25, 31]. Chronic treatment of alcoholism in elderly patients should follow the “start low, go slow” principle, and be closely monitored for side effects, such as hypotension or cognitive impairment [31]. A well-tolerated drug in patients over 65 years of age is naltrexone, which is an opioid antagonist. However, its use is contraindicated in the simultaneous use of opioid drugs by the patient, as well as in the case of coexisting liver failure. Acamprosate is also a relatively safe drug, which supports glutamergic transmission in the brain. It is especially recommended for patients who want to maintain abstinence. Disulfiram, which is an inhibitor of aldehyde dehydrogenase, is less frequently used in the elderly due to its numerous side effects and interactions with other drugs [25, 27, 28, 31].

Gambling addiction

Gambling, which is more and more common among the elderly population, is classified as addictive according to the ICD-11 classification [33]. Gambling can be defined as “the placing of a wager or bet of money or something of value on the outcome of an uncertain event that may include elements of skill and chance” [34].

It is recognized by the general public as a popular and legal form of entertainment and attracts with a variety of forms. Among the elderly, casinos, gaming machines, bingo, card games, lotteries, betting, Mahjong and now also online games are the most popular depending on the individual’s origin and culture [35].

According to population studies, in groups over 65, the frequency of gambling is lower than in younger age groups. Addiction affects men more often than women in the general population, although it is worth noting that women are more likely to start gambling only in old age [35]. The prevalence of problem or pathological gambling in people over 60 years of age is estimated to range from 0.01% to 10.6%. This large discrepancy results from the different methodology of the conducted research (group recruitment, identification of the disorder, ethnic origin of the studied groups, research limitations) [34, 35].

Gambling in older people tends to develop on a different psychological basis than in younger people. Older people face difficulties characteristic of this period of life – they are often lonely people, struggling with many health problems, retired, with financial problems, and suffering from cognitive impairment. Therefore, unlike younger people, more often focused on winning and risking, the elderly are attracted even more by the social aspect of participating in a community, the way of spending free time and providing entertainment, coping with stress and negative emotions in this way, a false sense of control, although this aspect of life, especially when gambling is part of family or cultural traditions [36]. The very location of these games can be extremely attractive to them – they are attracted by a friendly atmosphere, a lack of judgment and new friendships [37].

Understanding the causes of compulsive gambling is an important aspect of helping someone combat harmful behavior. It is worth knowing what the risk factors are, because in the elderly there is a tendency to underestimate this problem, not asking for help, and at this time the addiction leads to serious consequences [36].

Today, gambling addiction is seen as a significant public health problem. It affects not only the life of the patient, but also his or her family, relatives and society. Gambling can lead to financial and housing problems fairly quickly, but addiction has consequences that extend far beyond the material realm [37]. This addiction has a negative impact on relationships with relatives, it increases stress and the long-term predominance of the sympathetic system, which, along with associated conditions, may reduce the body's resistance and lead to chronic diseases, and it is characterized by higher mortality and suicide rates (Table 1) [34, 35, 38]. On the other hand, there are reports of positive effects of gambling when it is only a form of pure fun. Such activity may improve self-esteem, cognitive functions such as memory, coordination, problem thinking and constitute a form of social life [35].

Addiction to gambling very often coexists with other mental disorders such as mood disorders, schizophrenia, phobias, neurotic and personality disorders, post-traumatic stress disorders, and also with organic diseases (resulting from, for example, stroke, dementia and serious brain injuries) [36, 39, 40, 41].

Moreover, the abuse of psychoactive substances, such as alcohol and drugs, is common among addicts [39, 40]. However, it is difficult to say unequivocally whether mental health problems are the cause or consequence of gambling addiction, or are caused by a common pathomechanism involving neurotransmitters and hormones, especially dopamine and the reward system [9, 37, 40]. There are studies showing an association between gambling addiction and the use of dopaminergic drugs such as levodopa, pramipexole, ropinirole, piribedil (used especially in patients with Parkinson's disease) and antipsychotics such as aripiprazole [9, 42].

It is worth noting that addiction to gambling does not have objective physical symptoms such as alcohol addiction. For this reason, the identification of patients is not so obvious. The importance of primary care physicians

in preventing serious gambling problems is emphasized [37]. Several screening tests based on the criteria of the disorder diagnosis have been proposed, such as the South Oak Gambling Screen (SOGS), the Diagnostic Interview for Gambling Severity (DIGS), the Lie / Bet Questionnaire, and the Early Intervention Gambling Health Test (EIGHT) [39].

Treatment of this addiction includes non-pharmacological treatment such as psychological therapy with behavioral, cognitive and behavioral-cognitive approaches, support through so-called Gamblers Anonymous, learning to play in a controlled way, brief interventions, the provision of advice and information and pharmacological treatment (selective serotonin reuptake inhibitors, opioid receptor antagonists, mood stabilizers are used) [39]. It is also important to treat coexisting mental disorders and other addictions simultaneously; however, this undoubtedly becomes more difficult and demanding and the prognosis is worse [40].

Cigarettes

Nicotine is one of the most psychoactive substances used internationally. It can be delivered in a variety of forms such as cigarettes, e-cigarettes, nicotine replacement therapy products and water pipes. Cigarettes are still the most popular product containing this substance. Nevertheless, heat-not-burn systems and e-cigarettes are gaining popularity [43].

Tobacco overuse is another problem leading to increased mortality rate and decreased life expectancy. It is assessed that more than 70 out of 7000 chemical compounds found in cigarette smoke may be carcinogens [44]. The problem of smoking is wrongly considered as a complication affecting mainly the young population. In European countries, the prevalence of cigarette use in the group of older adults (aged 65–74) is 8.4% and 12.2% for women and men respectively [45]. Data from the United States shows that cigarette use is less frequent in the population aged 65 and older in comparison to the younger group (aged 45–64), 9.3% and 22.6% respectively [46].

According to the Diagnostic and Statistical Manual of Mental Disorders (Fifth Edition), tobacco use disorders, known as nicotine use disorders,

include criteria such as uncontrolled substance use, adverse effects on social functioning and daily activities, withdrawal symptoms and substance use despite knowledge of its harmfulness. Two out of eleven criteria should be observed within a 12-month period to diagnose the disorder [45]. To evaluate the level of nicotine dependence, the Fagerstrom Test is commonly used. It includes six questions related to smoking habits [47].

Tobacco use disorder occurs more frequently in the population characterized by alcohol use disorder, low socioeconomic status, life stressors and psychiatric components such as depression or anxiety [45]. As many previous studies, research by Quittschalle et al. proved that frequency of smoking is associated with severity of depression in the elderly population. However, the exact explanation of whether cigarette use causes depression or depression makes nicotine dependence worse is not known [48].

Due to the cumulative effect of tobacco use, the elderly population is at higher risk of experiencing health consequences. Smoking increases the risk of cardiovascular diseases, peripheral artery diseases, uncontrolled asthma, sinusitis and osteoporosis. It is known that smoking is a risk factor for lung, bladder, kidney, head and neck cancer development. Getting older naturally affects lung function and tobacco use accelerates the destruction process. Furthermore, community-acquired pneumonia occurs more likely in elderly smokers (Table 1) [45].

A significant consequence of smoking in elderly patients may be cognitive impairment (Table 1). Tobacco use is associated with a higher prevalence of vascular dementia or Alzheimer disease.

As is commonly known, the elderly population struggle with sleep disorders more often than the younger population (Table 1) [49]. Some studies showed that tobacco smoking influences sleep. In the Saif Aldeen AlRyalat et al. randomized controlled study, an association between nicotine dose and sleeping problems is shown. The higher the daily nicotine dose, the more sleep interruption is observed [50]. It is important to consider smoking as a risk factor of insomnia and sleeping troubles in older patients.

Smoking cessation is more challenging in elderly patients. This group may have less knowledge about cigarette misuse harm and its health

consequences. Additionally, nicotine use disorder affects those patients for a longer time [45, 51]. As mentioned in the research of Doaa Abdel-Hady and Abdel-Hady El-Gilany, most studies have shown decreasing nicotine use while aging. However, their study proved no significant difference in the rate of giving up smoking among the younger and older population.

The decision to stop smoking cigarettes among those who are 60 or older is influenced by many factors. Successful tobacco cessation happens more likely in patients who have been smoking for a shorter period of time, a smaller daily dose of nicotine, lack of alcohol abuse, and those with social support. Taking more medication due to comorbidities also contributes to effective smoking cessation.

Unlike previous studies that identified normal cognitive function as a factor increasing cigarette cessation, in the Jiska Cohen-Mansfield study it was proven that cognitive dysfunction facilitates successful non-smoking. These contrasting results may be due to differences in average age among the compared study groups and inconsistency in cognitive function diagnosis [46]. Further research is needed to clarify the association between cognitive impairment and successful tobacco cessation.

Table 1. Characteristic symptoms of abuse depending on the type of addiction

Type of addiction	Characteristic symptoms
Drugs	<ul style="list-style-type: none"> • impairment of physical and cognitive functions • increased risk of dementia • fractures and traffic accidents
Alcohol	<ul style="list-style-type: none"> • cognitive impairment • confusion • increased risk of depression • social functioning disorders
Gambling	<ul style="list-style-type: none"> • loss of family relationships • deceiving relatives about addiction • long-term stimulation of the sympathetic nervous system
Cigarettes	<ul style="list-style-type: none"> • sleep disorders • uncontrolled asthma • memory dysfunction • severe community-acquired pneumonia

Discussion

The issue of addiction among the elderly is a significant one for both users themselves and the general public. With an aging population and an increasing number of addicts in every age group, this could become difficult to address and an overwhelming problem in the near future. It is important to note that any type of addiction can lead to progressive health problems that, among the elderly, can create an increased need for care, including health care. Increased physical and mental morbidity can lead to increased use of medications, polypharmacy, and increasing dependence of an individual's functioning on medication. The inability to meet one's need for an addictive agent for a variety of reasons (e.g., financial, health, physical) can lead to attempts to substitute one addiction for another, ultimately never achieving recovery from addiction.

The results of our review of the literature clearly indicate an increased prevalence of drug addiction among the elderly compared to younger people. At the same time, we found rather disturbing findings in the research results showing that addictions among the elderly can often result from inattentive management of the geriatric patient by the physicians who treat them [2]. Inappropriate drug selection, drug combinations that lead to drug interference or that exacerbate drug side effects, can lead to self-modification of therapy, especially for sleeping pills or analgesics [35]. It is the responsibility of the physician to monitor the patient's proper medication intake. It is also the physician's responsibility to recognize signs of addiction in the patient. This is a particularly difficult task because for the most common addictive agents, such as alcohol, opioids, or sedatives and hypnotics, the signs of addiction in older adults are nonspecific. They may resemble typical changes that occur with age, including dementia, depression, anxiety disorders, cognitive impairment, or decreased independence [2, 21, 35].

Many studies of addiction in the elderly identify common predisposing factors such as loneliness, not feeling needed, and chronic illness [12]. Therefore, it can be suspected that the treatment of addiction among the elderly

will be different from that of younger people. Activating older adults professionally and socially will be important in treatment. In the case of chronic diseases that require multi-drug therapy, the most important thing will be the appropriate selection of medications and, above all, patient education.

Just as we indicated above, addiction often leads to complications that result in the use of more and more drugs. It is no different with nicotine addiction. Patients find it easier to quit only when their health situation forces them to do so, by which time the consequences of a long-standing addiction may already be irreversible. As noted in the Cohen-Mansfield study, people who quit smoking used more medication than those who continued to smoke. It can be assumed that a significant influence on quitting smoking here was the consequences of addiction, which will most often manifest themselves after the age of 50–60. Thus, there may be a difference in the prevalence of nicotine addiction among people over 65 and the younger group aged 45–64, where smoking is about 2.5 times more common [46].

Gambling addiction in older adults has a slightly different background than other addictions. Initially, gambling can have a positive effect on the elderly, giving them a sense of control over their lives, reducing feelings of loneliness by belonging to a certain community, and to some extent providing mental exercise that can delay the onset of dementia [35, 36]. At the same time, gambling is an additional stressor on the body that can significantly impair the health of older adults [35]. Is gambling then good or bad for older people? It is not easy to clearly delineate the point at which social gaming becomes a life-threatening addiction. Older adults are often unaware of the problem and so do not seek help [36].

As in any addiction, whether it is drugs, alcohol, cigarettes, or gambling, one of the most important people who can detect the addiction and act in advance is the patient's family physician. The reluctance to ask geriatric patients about stimulant use or gambling should not hinder this important task of preventing harmful addictions [2, 37].

Conclusions

Addictions in older adults are not the same as those in younger adults and should be considered separately. Older adults are particularly vulnerable to drug addiction. The physician has a significant role in recognizing and treating addiction in older patients, regardless of the type of addiction. More research is needed on the relationship of addiction to mental illness, such as the relationship of depression to nicotineism or the disruption of dopaminergic transmission in gambling addiction. Also important for further research is the question of the influence of cognitive dysfunction on the effectiveness of smoking cessation.

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