

Alcohol Addiction in Children and Adolescents

Çocuk ve Ergenlerde Alkol Bağımlılığı

 Meryem Karaaziz¹,  Hande Çelikay Söyler¹

¹Near East University, Nicosia, TRNC

ABSTRACT

Addiction is an uncontrollable desire for the repetition of a particular obsession, despite its negative impact on health and causing harm to social lives. Although it affects their well-being, people persist in pursuing and maintaining this compulsive behavior. Nowadays, substance addiction issues are emerging prominently in children and adolescents as much as in adults. Alcohol can lead to permanent and serious developmental disorders in the adolescent brain. Among these damages, there is a significant risk of losing mental health and experiencing severe psychiatric illnesses such as psychosis and schizophrenia. Especially during critical periods like childhood and adolescence, early alcohol use poses a biopsychosocial (biological, psychological, and social) problem leading to serious negative consequences in society. This study aims to address alcohol addiction in children and adolescents, discussing risk factors, potential problems they might face, treatment approaches, and providing recommendations for approaching this issue for both families and healthcare professionals.

Keywords: Addiction, alcohol addiction, child and adolescent

ÖZ

Bağımlılık, sağlıklarını olumsuz yönde etkilemesine, sosyal yaşamlarına zarar vermesine rağmen, insanların belirli bir takıntılı durumu yinelemeye yönelik engellenemeyen bir istek duymaları ve bunu sürdürmeye devam etmeleridir. Günümüzde, çocuk ve gençlerde de en az yetişkinler kadar madde bağımlılığı sorunları ciddi şekilde ön plana çıkmaktadır. Alkol ergen beyninde kalıcı ve ciddi gelişimsel bozukluklara yol açabilmektedir. Bu hasarların başında, akıl sağlığını yitirmek, psikoz, şizofreni gibi ağır psikiyatrik hastalıklar deneyimlemelerine oldukça ciddi bir risk oluşturmaktadır. Özellikle çocukluk ve ergenlik dönemi gibi önemli bir süreçte erken alkol kullanılmaya başlanmasının biyopsikososyal (biyolojik, ruhsal ve sosyal) alanda olumsuz ve ciddi hasarlara yol açan toplumsal bir sorun olduğu görülmektedir. Bu çalışmada, çocuk ve ergenlerin alkol bağımlılıkları, risk faktörleri, yaşayabilecekleri sorunlar, tedavi yaklaşımları ve aileler ile sağlık çalışanlarına bu konuya yaklaşım önerileri getirmek amaçlanmaktadır.

Anahtar sözcükler: Bağımlılık, alkol bağımlılığı, çocuk ve ergen

Introduction

Addiction is a treatable, chronic medical disease which involves complex interactions between genetics, environment, and life experiences that one persists although he or she is harmed (American Society of Addiction Medicine [ASAM] 2019). There are various types of addiction such as substance, cigarette, alcohol, eating, shopping, and technology addiction (Eryılmaz and Deniz 2019). Substance and behavioral addictions are defined as functional impairments in daily life characterized by prioritizing substance use or certain behaviors, preoccupation with them and their persistence despite negative consequences (Zou et al. 2017, Brand 2020).

The American Psychiatric Association (APA) initially classified the diagnosis category related to addiction as "psychoactive substance use disorders" in the DSM-III-R. Subsequently, in the DSM-IV, this classification was termed as substance-related disorders (O'Brien 2010). In the DSM-5, the diagnosis group was restructured as substance-related and addictive disorders. Conversely, in the International Classification of Diseases 11th Revision (ICD-11), alcohol addiction is defined as a disruption in regulating alcohol use due to recurrent or persistent alcohol consumption (WHO 2022). According to the ICD-11 criteria, features necessary for diagnosing alcohol addiction include impaired control over alcohol use, escalating priority of alcohol over other life aspects, continued or increased alcohol use despite harm, tolerance to its effects, withdrawal symptoms upon cessation, and a strong urge to consume alcohol. Typically, addiction traits manifest over at least 12 months, although a diagnosis may be established if daily alcohol use continues for at least 3 months (WHO 2022).

Childhood and adolescence mark pivotal stages for brain development. Consumption of addictive substances like alcohol during this time can result in lasting and severe developmental issues in the adolescent brain. These

Address for Correspondence: Hande Çelikay Söyler, Near East University Faculty of Arts and Sciences, Department of Psychology Nicosia, TRNC **E-mail:** hande.celikay@neu.edu.tr

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complications encompass mental health deterioration, severe psychiatric conditions such as psychosis and schizophrenia, presenting significant risks. Early initiation of alcohol use, particularly during these critical developmental phases, becomes a societal concern due to its potential to inflict profound biopsychosocial harm, affecting biological, psychological, and social aspects. The adverse repercussions of alcohol use encompass regretful behaviors, loss of consciousness, self or others' injuries, encounters with law enforcement, instances of sexual assault, and tragically, even suicide (Forster et al. 2023). Notably, alcohol-related injuries, suicides, and assaults stand as primary causes of death among young adults. Statistics indicate that about 10% of students report experiencing health, social, legal, or financial issues due to alcohol use at least once (American College Health Association [ACHA] 2019).

Contemporary issues are causing a sense of pessimism among not just children and adolescents, but also among adults globally. This trend is not limited to Türkiye alone; it's prevalent worldwide. Moreover, the proliferation of negative and pessimistic news through media channels contributes to heightened chaos and stress in society. Surprisingly, a recent study has revealed that alcoholic beverages have a diminished presence in the lives of young individuals compared to prior generations. This study also highlights how social media tends to magnify the issue of alcohol use among adolescents, possibly overstating its prevalence (Luomanen and Alasuutari 2022).

Alcohol use in adolescents leads to various physical, psychological, and social effects. Despite this, few healthcare personnel such as psychologists, psychiatric nurses, family physicians, etc. who work to protect the physical, mental, and social well-being of children and adolescents carry out a few studies on alcohol and substance addiction. This situation brings the diagnosis and treatment of alcohol use in children and adolescents to a halt in developed countries as well as in our country. Alcohol use in children and adolescents remains a significant health problem globally, despite public and policy efforts (United Nations Office on Drugs and Crime [UNODC] 2019). Commencing alcohol consumption at an early age can result in enduring neurobiological and neuropsychological effects specific to the developing adolescent brain (Kang et al., 2014). However, it also carries substantial economic costs and presents a serious risk for alcohol and other substance abuse issues in adulthood. Research by Arkes highlights the influence of economic conditions on teenage alcohol and drug use, indicating that a weaker economy correlates with increased cannabis, cocaine, and alcohol consumption among adolescents. Moreover, initiating alcohol use at an early age (<14 years) escalates the likelihood of experiencing suicidal thoughts and attempting suicide later in life (Ahuja et al. 2021).

An international study exploring the link between alcohol consumption and suicide rates reveals that solely alcoholic beverage consumption exhibits a positive and statistically significant relationship with suicide rates. Interestingly, countries with lower overall alcohol consumption and reduced prevalence of alcohol use tend to display higher suicide rates (Testa et al. 2019). Additionally, investigations into suicide-related factors in children and adolescents demonstrate elevated suicide attempt rates among middle and high school students who engage in drug, alcohol, or tobacco use compared to those who abstain (Ahuja et al. 2021).

This study aims to furnish insights into alcohol addiction among children and adolescents, elucidating the associated risk factors, potential challenges they might encounter, various treatment approaches, and providing recommendations for families and healthcare professionals.

Epidemiology

Harmful use of alcohol results in the death of approximately 3 million people each year and the cost of diseases and injuries caused by alcohol use is high. The World Health Organization (WHO) has reported that the age of starting substance use and showing signs of addiction has decreased to 5-14 years. In a comprehensive study conducted in 2011 by the Turkish Monitoring Center for Drugs and Drug Addiction (TMCDD) with a total of 129 schools and 11812 students in 32 provinces, it was found that 19,4% of the students tried alcoholic beverages. One of the important findings of the study is that the age of onset of substance use is gradually decreasing (TUBİM 2012). 34.2% of 10th grade students participating in a study conducted in Istanbul in 2014 reported that they had tried alcohol at least once in their life (Evren et al. 2014). In another study conducted in Turkey 23.6% of adolescents who applied to addiction centers for help stated that they had alcohol use problems (Yüncü et al. 2014). According to the data of TMCDD, it is known that the rate of alcohol use at least once among students aged 8-15 in Turkey is 40%. In a study conducted with 2973 students studying at Ege University, it was found that alcohol use at least once in a lifetime was 76,2%, the risk of alcohol addiction was 12,1% and heavy drinking was 37,2% (Aldemir et al. 2018). In the Turkish Republic of Northern Cyprus (TRNC), alcohol use among 3rd grade secondary school students was found to be 61.96% in 1999. Again, in a study conducted among 5th grade primary school students in TRNC in 2015, it was seen that the rate of alcohol use at least once in their

lifetime was 23.5% (Çakıcı et al. 2017). In the current studies conducted in the TRNC in 2019, it was observed that this rate decreased in both groups and the use of illegal substances increased. It has been determined that smoking-alcohol use and being drunk are risk factors for addiction (Çakıcı et al. 2019). At this point, it is possible to say that the use of cigarettes and alcohol carries the risk of being a transition substance to the use of illegal psychoactive substances.

In the United States, it was found that the lifetime prevalence of alcohol use problems among youth is 8% (Merikangas and McClair 2012). In another recent study conducted in the USA, it was reported that the rate of 11-year-old students who tried alcohol at least once in their lifetime was 25.7%. In the study investigating the use of alcohol and other drugs in schools in Europe, the frequency of alcohol and other drug use among students in the last 30 days was questioned and it was seen that the frequency of use varies between 50-70% in many countries (The European School Survey Project on Alcohol and Other Drugs [ESPAD] 2016).

According to the WHO, the current drinking prevalence is highest in Europe (59.9%), followed by America (54.1%) (WHO 2022). A study on alcohol consumption in Russia examined the prevalence of alcohol use and the overall consumption level to see whether the overall decline in consumption was statistically significant between 2006 and 2018 and it found that the frequency of alcohol use in the last 30 days decreased from 72.2% to 58.1% in women and from 84.3% to 69.5% in men (Radaev and Roshchina 2021). Bryant and Kim (2013), in several studies regarding alcohol consumption, have found that such a change in lifestyle increases the risk of excessive alcohol consumption among immigrants and that a higher cultural adaptation level in immigrants predicts the likelihood of greater alcohol consumption. They have argued that the reason for the increase in alcohol consumption among immigrants is that immigrants consume alcohol to gain social acceptance and use it as a social ticket. In a study conducted with Korean adolescents, it was found that smoking, alcohol use and early initiation of sexual activity in adolescents are significantly associated with the socioeconomic status of adolescents. The early onset of prevalence of smoking, alcohol use and engaging in sexual activity risk behaviors (≤ 12 years) were found to be 4.8% 10% and 1.4%, respectively. The prevalence of early initiation of these risk behaviors was observed to be lower compared to Western Countries (Valencia et al. 2019).

According to reports of the World Health Organization, per capita, alcohol consumption is lowest among children younger than 15 years in Muslim-majority countries, including Iran (less than 2.5 liters of pure alcohol per year). According to a modeling study carried out, per capita alcohol consumption remains lowest in Middle East and North African countries. The reason for this may be the fact that people living in the Middle East and North Africa are Muslims; therefore, avoid alcohol consumption (Manthey et al. 2019). In studies investigating the impact of the COVID-19 pandemic on youth alcohol use, the rate of increase during the onset of the pandemic was found to be lower than before the pandemic (Gohari et al. 2022). Increased social isolation was thought to be the likely cause of the decline in alcohol use (Dumas et al. 2020).

Clinical Presentation

The addiction cycle proceeds as follows; it emerges as a process that progresses in the form of experimenting with the thought that nothing will happen once, using it regularly, using it every day and addiction (Gürsel et al. 2004). Substance use purposes manifest themselves in three ways and these are “experimental use” (to discover themselves); “social use” (to be approved by family and friends); “characterological/operational use” (to escape from loneliness, alienation, emptiness, and other problems). Children and adolescents, who experience alcohol for the first time, enjoy the mood change and reach a sense of relief in the short-term with the removal of intractable emotions and start to need and use this substance regularly. Alcohol use, which increases with the feeling of comfort in the short-term, begins to show itself in the long-term with the state of addiction and its difficulties. The addicted youth becomes now dependent on alcohol to eliminate withdrawal symptoms and feel normal, experiences significant difficulties in academic life and faces with high rates of mental and social problems (Dilbaz et al. 2019).

Research indicates that the primary influencer in initiating alcohol addiction and recovering from it is the social circle, with family ranking as the third most crucial factor. A study highlights that women tend to turn to alcohol due to issues related to self-esteem, while men often resort to it as a coping mechanism for depression and anxiety. Insights from a research study involving 100 participants with alcohol addiction who participated in Alcoholics Anonymous meetings reveal that individuals maintaining sobriety for over two years and having strong perceived social support tend to sustain longer alcohol-free lives. They exhibit elevated self-esteem and employ problem-focused coping strategies more effectively (Yücel et al., 2020). Moreover, a clinical observational study examined alcohol craving in abstinent individuals and those recovering from alcohol dependence and withdrawal syndrome.

According to clinical observation, these patients periodically show symptoms of asthenia, anorexia, anxiety, irritability, aggression, insomnia, hyperactivity, and pleasant sensation seeking, boredom and depression. Alcohol use disorder is characterized by multifactorial pathogenesis with various clinical manifestations such as mental and behavioral disorders, internal medicine diseases, and neurological or psychiatric problems. Alcohol use is supported not only by operant conditioning processes, but also by the association of classical conditioning processes, that is, stimuli that were previously neutral in drinking situations with the generation and induction of alcohol cravings that lead to habitual use, the frequent association of alcohol with pleasant situations, mood elevation, disinhibition, and the suppression of the negative effects (Batra et al. 2016). Alcohol addiction has a high comorbidity with many other psychological disorders, including depressive disorders, anxiety disorders, attention-deficit-hyperactivity disorder, and personality disorders (non-social or avoidant personality disorder) including emotional instability and alcohol-induced aggression (Heinz et al. 2011). In a study, they listed psychiatric problems accompanying alcohol use as bipolar i (46%), bipolar type ii (39%), schizophrenia (34%), personality disorder (29%), and major depressive disorder (17%) (Arikan 2011). There are some symptoms of alcohol use in children, such as a decrease in school performance, changes in the friend environment, avoidance of contact with the environment, introversion, sudden changes in mood, not giving importance to personal care, avoiding plans, trembling in the hands and insomnia. The diagnosis of substance use disorder in children and adolescents is evaluated according to the DSM-V diagnostic criteria used for adults (Eker et al. 2013). Furthermore, there are many psychometric assessment scales used in both clinical and research settings, especially for children and adolescents to be diagnosed with alcohol and substance addiction.

Etiology

Biological Factors

There are studies showing that alcohol addiction is associated with genetic predisposition. In a meta-analysis study of twins and adopted children, it was found that approximately 50% of alcohol use disorders are inherited (Verhulst et al. 2015). Therefore, alcohol use common in the family potentially creates a tendency towards alcohol for the child. In a study examining whether the children of alcohol-dependent fathers differ from those of non-alcoholic fathers in terms of both behavioral and cognitive functions, and psychopathology, it was found that children of alcohol-dependent fathers receive psychiatric diagnoses at a higher rate than children of non-alcoholic fathers (Kültür et al. 2006). In a study conducted in Finland, alcohol use problems and mental and behavioral problems of children who were born in 1997 and whose parents were alcohol-dependent were examined. Mental or behavioral problems were observed in 15.4% of boys and 0.6% of girls who were followed up for 15 years. In addition, it has been observed that the alcohol addiction of the mother or father increases the risk of alcohol addiction of the child (Raitasalo et al. 2019). In a study conducted on 2800 adolescents in the 14-15 age group in Australia, it was examined how their parents' being heavy drinkers influenced children. It was found that the father's drinking is more strongly associated with the periodic heavy drinking of the female adolescent living in the same house and that the heavy drinking of the mother does not make a difference in terms of gender on the girls and boys, and the heavy drinking of the parents is an important risk factor for the adolescent (Homel, & Warren 2019).

According to the findings of a recent study, the relationship between the frequency of alcohol use by mothers and adolescent excessive drinking is stronger for girls and the relationship between the frequency of alcohol use by fathers and adolescent excessive drinking is stronger for boys (Espinosa-Hernandez et al. 2022). In a longitudinal study, data from children followed from infancy to age 14 found that boys and girls who experience precocious puberty have a higher risk of drinking alcohol during adolescence, compared to their peers who experience puberty on time (Bucci et al. 2021).

Alcohol involvement sometimes starts but more often escalates between 16 and 20 years of age, when youths are also experiencing dramatic physical, emotional, and social changes. Specifically, a variety of forms of hazardous drinking emerge during middle to late adolescence and, for many youths, these problematic patterns of drinking continue to escalate through 18 to 20 years of age, the period of greatest risk for the onset of an alcohol use disorder (Brown et al. 2008). In a study, the results of toxicological analysis of children and adolescents in Izmir in 2015-2016 were retrospectively analyzed and it was aimed to determine the substance use profile of children and adolescents. As a result of the study, alcohol and/or drugs were detected in 13.2% of the cases, with cannabis (33%), amphetamine-type stimulants (15%), polysubstance use (15%) and alcohol (13%) being the most common among the positive cases. While cannabis, polysubstance use and amphetamine-type stimulants were most common in males, ethyl alcohol, amphetamine-type stimulants and benzodiazepines

were most common in females. In 2016, a significant increase was observed in the rate of substance use compared to the previous year (Aslan et al. 2022). In a study evaluating trends and gender differences in alcohol and substance use behavior in young people who applied to an addiction center in Istanbul for treatment, the substance use tendencies of 2755 children between 2011 and 2014 were examined. As a result of the study, there was an increase in the total number of young people admitted for substance use in 2014 (31.4% in 2011, 68.6% in 2014). From 2011 to 2014, there was a significant increase in polysubstance use and in the number of girls applying for treatment. In 2014, there was an increase in the use of alcohol, ecstasy, synthetic cannabinoids and heroin, and a decrease in the use of volatile drugs, cannabis, and prescription drugs (Doksat et al. 2016).

Sociocultural Factors

Familial and environmental factors play an important role in sociocultural variables. A child whose parents smoke is four times more likely to smoke than a child whose parents do not smoke. It has been found that the presence of psychiatric, marital, or legal problems in the family and the absence of social support are associated with the increase in substance use (Cloninger et al. 1995). In the research carried out, it was found that the substance use of adolescents whose peers use substances is increasing (Jacob and Johnson 1997; Karaaziz and Keskindağ 2016). However, it is reported that the prevalence of substance use is higher in children and adolescents who are homeless (Kaya Kılıç and Aslantürk 2019). The media has also a significant impact on substance use (Oktuğ Zengin 2013). In a study examining the effect of advertisements on alcohol consumption in 17 countries between 1970 and 1983, it was found that there was a 16% decrease in alcohol consumption in countries that banned alcohol advertisements compared to those that did not (Saffer 1991). In addition to all these, the expectation effect creates a serious risk factor for alcohol addiction in children and adolescents.

The existence of thoughts that alcohol facilitates social relations causes the person to start using alcohol more easily and earlier. Moreover, it is observed that curiosity, wannabe, and modelling family members who drink are risk factors for starting alcohol in children and adolescents (Karaaslan 2017). In a study conducted with Danish adolescents, the relationship between sociocultural and school-related risk factors and alcohol consumption of 1453 15-year-old students was examined. Whereas school-related risk factors were effective in the alcohol consumption of adolescent girls with low socioeconomic status, dislike for a school affected the drinking behavior of adolescent girls with high socioeconomic status. It was found that inadequate parental support and dislike for school are associated with drinking behavior in male adolescents with low socioeconomic status while difficulty in decision-making skills is associated with drinking behavior in adolescents with high socioeconomic status (Anette et al. 2007). In a study conducted with 7037 university students in Brazil, risky behaviors while driving on low alcohol were examined and it was found that age group, illegal substance use, gender, marital status, and employment status affect risk-taking behavior in traffic (Gonçalves et al. 2012). In a study involving 671084 adolescents from 33 countries, including North America and European countries, the alcohol consumption of adolescents and the alcohol policies of the countries they live in were examined. Along with the fact that limiting the affordability of alcohol is the most effective policy, it has been found that the adolescent's perception of the low or high socioeconomic level of her or his family is a factor that increases alcohol consumption (Leal-López et al. 2020).

Although many sociocultural variables are involved in adolescent alcohol use, most studies focus on school and family risk factors. In a study conducted with individuals who have immigrated to Izmir, it has been found that the rate of starting substance use is higher than the rate of starting substance use of individuals who have not immigrated due to the feelings of anxiety, loneliness and alienation arising from exposure to negative conditions such as unemployment, working conditions, the number of children and siblings and difficulty in adapting to the city and culture (Şaşman Kaylı et al. 2016). In a study comparing alcohol and substance use of English and French adolescents' 15-16 age groups were compared. When the variables predicting alcohol and substance use in adolescents were examined, it was found that the parents' knowledge of their children's whereabouts on Saturday evenings is the strongest factor and that while the family structure is important in both countries, paternity relationships are very important among French students (Ledoux et al. 2002).

In a study conducted on one of the social networking sites, Facebook 189 adolescents were asked to review pre-made profile pages for their older peers with and without alcohol use. Craving, attitudes towards alcohol use and how images affect perceived vulnerability were investigated. As a result of the research, it was found that adolescents who perceive their alcohol use as normative are at higher risk in terms of cognitions that predict alcohol use (Litt and Stock 2011). In a study examining the effect of visual media on alcohol and cigarette use, it was found that the participants who watched the movies estimated that the alcohol and cigarette use took longer than they usually do and that it created an increasing effect on craving (Yedekçi 2017). In a study conducted with Ugandan youth, a positive correlation was found between the positive perception of alcohol advertisements

and alcohol consumption in society, and alcohol consumption. In terms of factors that may exacerbate the link between the positive perception of alcohol advertisements in the society and the intention to drink alcohol, it was also found that only a non-drinking peer group is protective and buffers against the intention to drink (Swahn et al. 2022).

Psychological Factors

Individuals who experience situations such as negative adolescence and childhood experiences, lack of self-confidence, failure, hopelessness, negative relationships in the family and beliefs that they are not valued may start using substances to get rid of their negative affect (Karaaziz and Keskindağ 2016). In studies carried out, it is observed that there is a significant relationship between substance abuse and personality disorders. It has been discovered that personality disorders that accompany substance addiction often include antisocial personality disorder, dependent personality disorder, borderline personality disorder and passive-aggressive personality disorder (Davison et al. 1998). In particular, difficulty in expressing emotions, hypersensitivity, inability to cope with stress, difficulty in establishing relationships, low self-esteem, rebellion, intolerance of authority, impulsivity, inability to control oneself, failure in school, aggressive behavior, introversion, the tendency to commit crimes, presence of psychiatric problems greatly increase the risk of alcohol use (Gürsel et al. 2004).

There are also some comorbid psychiatric conditions that should not be overlooked when alcohol addiction in children and adolescents is studied. It is known that alcohol and substance use in children and adolescents can often be encountered as risk factors in the diagnosis and follow-up of diseases such as attention deficit and hyperactivity disorder (ADHD), oppositional defiant disorder, conduct disorder, bipolar disorder, depression and anxiety disorder (Lynskey et al. 2010). It has been found that there are multiple factors such as individual factors and personality traits (lack of self-confidence, being easily disappointed, being frustrated as a result of curiosity and trial-and-error, escaping from a problem) and environmental factors (family environment, peers, society) in alcohol use of adolescents (Maula and Yuniastuti 2017). In a study examining the relationship between personality traits and alcohol use, it was observed that personality traits influence the risk of heavy drinking. It was found that participants with high scores on neuroticism, openness, and extraversion or with low scores on conscientiousness are less likely to reduce their drinking to a reasonable level (Hell et al. 2022).

Treatment

Diagnosing alcohol addiction, recognized as a "biopsychological" condition by the World Health Organization and the American Psychiatric Association, is crucially reliant on an "expert" assessment that the affected individual acknowledges. Particularly in cases of alcohol and substance addictions, comprehending the problem, accepting it, and sustaining determination to address it pose significant challenges for the patient, rendering the treatment of the disease arduous (Akin 2018). The most efficacious approach to addiction treatment involves preventing substance use entirely. Alongside implementing preventive measures against addiction, effective drug therapies and psychotherapy should be prioritized.

Self-Help Groups

Self-help groups have demonstrated a notable reduction in relapses among addicted adolescents while also contributing to a decrease in crime rates (Pagano et al. 2015). Among these groups, Alcoholics Anonymous (A.A.) stands as the most renowned. Headquartered in New York, A.A. operates in 181 countries and over 650,000 cities, boasting 1,967,613 active members and 120,455 groups according to 2021 data. Utilizing the 12 Steps to Recovery program, A.A. not only aids individuals in overcoming alcohol addiction but also equips them with a new approach applicable to their lives (Yıldız 2021).

In Türkiye, A.A. gatherings initially convened once a week at the Department of Psychiatry in Ege University in 1988. Subsequently, A.A. groups were established in various cities across the country, including Ankara, Istanbul, Bursa, Tekirdağ, and more (Alcoholics Anonymous Turkey 2021). New members of A.A. are assigned a sponsor (mentor) who has maintained sobriety for at least a year, providing crucial guidance, daily support, responsibility, and serving as a role model to aid the new member in maintaining sobriety. The 12 Steps program aims to facilitate the necessary psychological, emotional, and spiritual changes essential for individuals to abstain from alcohol. This program endeavors to establish psychological well-being and developmental growth that can compete with the immediate rewards associated with alcohol use, enhancing stress coping mechanisms and easing the transition to an abstinent and sober lifestyle (Kelly et al. 2020).

The 12 Steps program encourages new members to acknowledge their inability to control addiction and seek help, engage in moral introspection about their past actions, and display behaviors to make amends for any harm caused. Ultimately, the program guides individuals to lead a sober life by discerning between positive and negative choices daily. These self-help groups, led by peers and not professionals, form a pivotal component of addiction recovery, fostering a non-judgmental environment conducive to open discussion about members' challenges and vulnerabilities. Comparable to certain forms of group psychotherapy, these groups offer a sense of belonging and shared experiences, mitigating negative influences such as shame, loneliness, and guilt. Research with adolescents has demonstrated the efficacy of the 12 Steps program, showcasing that participants tend to maintain sobriety more effectively compared to non-participants (Yalom and Leszcz 2008).

Drug Therapies

Pharmacotherapy holds a significant role in effectively addressing alcohol and drug addiction, complementing psychological and social interventions (Watson and Lingford-Hughes 2007). Current drug therapies for alcohol dependence primarily aim at various neurotransmitters and brain receptors, including dopamine, serotonin, opioid peptides, glutamate, and GABA (Gilpin and Koob 2008). Alongside psychological interventions like cognitive-behavioral therapy and motivational interviewing, medical treatments such as disulfiram, naltrexone, acamprosate, and nalmefene are utilized in alcohol dependence treatment across Europe and the United States (Wang et al. 2020).

Addiction, constituting a challenging set of disorders, persists due to psychological behaviors that lead to continuous substance abuse despite known consequences. This is further compounded by the neuropharmacological properties of the abused substance, activating the mesolimbic reward neural circuit. A review examining alcohol treatment highlighted that pharmacological addiction treatments typically target specific pathways to inhibit physiological aspects like cravings or aim to substitute the abused substance with a less potent or addictive alternative. However, the study emphasizes that pharmacology alone cannot completely cure addiction. Rather, current pharmacological treatments reduce the risk of relapse, and the therapy setting remains crucial to address the intricate interplay between psychology and neurobiology (Nigam and Pandurangi 2021). Another study conducted by Sofuğlu et al. (2013) concluded that a combination of drugs targeting cognitive functions alongside behavioral approaches might offer beneficial outcomes in addiction treatment.

Psychotherapy

Addiction treatment is a long process. Psychotherapy is an important part of addiction treatment, and its main goal is to increase the understanding of addiction, improve adherence to treatment, prevent relapse, rebuild a healthy lifestyle, and maintain long-term abstinence. Many psychotherapy methods such as motivational interviewing, Cognitive Behavioral Therapy, Family Therapies, Group Therapies, Mindfulness-based Cognitive Therapy, Avoidance Therapy, and Individual Therapy have been developed (He and Tao 2017). In a study, it was observed that the motivation of patients with substance addiction changed. Using psychological analysis, the study found that the motives of drug-addicted patients as the cause of their actions are mostly related to past drug-related pleasurable memories and that by using these pleasurable memories they identify an attractive opportunity in the future (Garifullin 2021). Motivational interviews, cognitive therapies, behavioral therapies, awareness and acceptance therapies, Positive psychotherapies, and ACT therapies aiming to rediscover and renew the diseases existing in the addicted person with their coping skills (Karaaziz and Keskindağ 2016) and many other new generation psychotherapy methods are used in the field of addiction (Erdem and Bildik 2019).

Family Therapies

Family therapy for addicts is the treatment of family groups. In treatment, the functioning of families, the relations of family members with each other, communication, roles in the family, sharing of responsibility, healthy communication styles, nature of addiction, etc. issues are discussed (Kılıçarslan 2007). As a result of a study carried out, it was observed that family therapy is an effective mechanism in reducing adolescent substance abuse and related behavioral consequences (Tambling et al. 2022). According to the data of a review article, while 9 out of 12 studies showed statistically significant improvement after the intervention; we can say that studies that did not show significant improvement were not effective because they had lower methodological quality. In addition, the potential iatrogenic effects of seven studies were investigated and it was found that four studies reported minor or moderate adverse effects in a small proportion (5-8%) of participants potentially related to the intervention. The resulting data suggest that family therapy is an effective intervention with significant mental health benefits, but the amount and overall quality of the evidence is low (Konkolý Thege et al. 2021).

Psychoeducation

Psychoeducation is education which is used to prevent and reduce potential addiction to addictive substances such as alcohol, cigarettes, and drugs. In Turkey, there are programs aiming at preventing substance use and addiction such as Social Activities Project, Peer Support Project, Turkey Anti-Addiction Training Program (TBM), Smoking, Alcohol and Substance Addiction Treatment Program (SAMBA). In other countries, there are also many addiction prevention programs such as Project Towards No Drug Abuse, Tall Wind: A Subproject of Lighthouse, Me, and the Others. The SAMBA program, which is effective in the treatment of substance addiction, is an accepting, structured psychoeducation program that includes interactive activities and didactic advice and can be applied to different addictions. Although the SAMBA program is mainly based on CBT, it utilizes Dialectical Behavioral Therapy (DBT), Awareness and Acceptance Therapy, and Motivational Interviewing techniques (Yoldaş and Demircioğlu 2020).

Occupational Therapies

In studies examining the effectiveness of occupational therapies in the treatment of addiction, it has been found that it is an effective method in developing a new role and creating a social identity beyond the substance user identity. Occupational therapy is a therapy that serves people whose ability to function in daily life is impaired due to physical illness or injury, developmental problems, the aging process, mental illness, or emotional problems, and is applied to engage the person, mind, attention and involve people in daily life activities. Its purpose is to help an individual achieve an independent, productive, and fulfilling lifestyle (Gürsel 2011).

Intervention Studies

Considering alcohol use as a pivotal risk factor for alcohol abuse and addiction, significant attention in prevention and intervention studies has been directed towards addressing this prevalent issue among young individuals. In the Netherlands, a study excluded weekly drinkers and never-drinkers, randomly assigning participants to four conditions: parent intervention, student intervention, combined intervention, and a control group. Students in the intervention groups were trained to enhance self-control and foster healthier attitudes towards alcohol consumption, while parents received guidance on implementing restrictive parenting rules and cultivating appropriate attitudes towards alcohol. The study concluded that weekly drinking initiation was delayed across all three experimental groups, with the combined intervention proving to be the most effective. Consequently, interventions targeting early adolescents should integrate components focusing on both adolescent self-control development and parental rule-setting (Koning et al., 2010).

Another study involving participants with an average age of 16.4 years implemented the Smart Choices 4 Teens program, evaluating alcohol usage frequency, volume, attitudes towards alcohol, and peer influence. Results indicated the program's effectiveness in preventing alcohol consumption and associated problematic behaviors among older adolescents (Byrnes et al., 2019).

In a different study, the SAAF program was administered to both parents and adolescents reporting alcohol consumption frequency and volume over the past three months. The findings consistently linked family-based factors with the onset and escalation of alcohol use during adolescence, highlighting the SAAF program's ability to attenuate alcohol use escalation among middle school-aged youth over a 34-month period (Kogan et al., 2019).

In Australia, an extensive study with 8th-grade students over three years incorporated four conditions: Universal intervention, selective intervention, combined intervention, and a control group. The universal intervention included all students regardless of alcohol usage, while the selective intervention identified high-risk students through the Substance Use Risk Profile Scale. Results revealed that the three experimental groups exhibited reduced alcohol consumption, binge drinking, and alcohol-related harms compared to the control group at the three-year follow-up, with sustained beneficial effects observed over time. Delaying the onset of alcohol consumption during adolescence appears to hold significant long-term implications (Slade et al., 2020). A study in Brazil involving both alcohol-using and non-using students showcased the effectiveness of the Tamojunt0.0 intervention program in indirectly preventing lifelong alcohol use and binge drinking. Additionally, it emphasized the importance of school-based prevention programs (Garcia-Cerde et al., 2023).

Conclusion

As evident from this assessment, alcohol addiction poses a significant threat to individuals and societies, spreading rapidly and presenting considerable challenges in treatment. Particularly in the current epoch of

epidemic outbreaks and heightened stressful events, both adults and young individuals, looking up to these adults as role models, experience profound mental distress. Throughout history, physicians have suggested that a moderate amount of alcohol possesses stress-relieving and anxiety-dampening properties. Consequently, the heightened vulnerability of children and adolescents to alcohol use during these challenging periods cannot be disregarded.

Raising awareness among educators, administrators, healthcare professionals, students, and notably parents is deemed crucial in addressing this issue. The primary and most pivotal role of the family in averting alcohol use is to set an example for their children. Children keenly observe their parents' behaviors daily, using them as models to shape their own attitudes and actions. Family relationships represent a child's earliest encounters with human interactions, serving as the foundation for learning and practicing social behaviors. Similarly, regarding alcohol use, a child witnessing their parents' alcohol consumption may perceive it as a normal facet of life. Therefore, it becomes imperative to engage children in educational programs that inform them about the consequences of alcohol use.

Moreover, fostering the ability to refuse, make informed decisions, engage in personal development, and cultivate healthy hobbies becomes essential. Teaching healthy coping mechanisms, especially in managing stress, is crucial. However, it is equally important to educate healthcare professionals, families, teachers, and others on how to effectively approach children, seeking guidance from experts. It's critical to curb the societal normalization of alcohol and substance use, emphasizing the long-term costs over the short-term calming effects. Throughout these efforts, it's crucial for adults—be it family members or healthcare professionals—to adopt a supportive rather than critical or stigmatizing stance towards children and young individuals seeking help. Additionally, governmental policies addressing potential dependencies and the repercussions of alcohol and substance use should be established. These policies should include the organization of informative initiatives such as brochures, dramatic events, theater productions, conferences, seminars, interviews, and awareness programs to educate and enlighten the public.

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