

Substance Abuse and Its Prevention in Adolescents

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Abstract

Making up 20% of the world's population, adolescents are at the highest risk group for substance abuse. Adolescents who do not fully complete their cognitive, emotional, social, and physical development show various cognitive, behavioral, and psycho-social symptoms against addiction disorders and cause various problems at the individual and social levels. It is reported that prevention and early intervention programs for adolescents are the most appropriate method for solving this problem. In order for these prevention programs to be successful, it is necessary to identify the adolescents at risk and to be aware of the protective factors. Important responsibilities, therefore, fall on the governments, non-governmental organizations, teachers, families, and especially health professionals working in the field of public health and school health. In this paper, the risk factors that cause substance use in adolescents, protective factors, and prevention and prevention programs for substance addiction will be addressed. Especially the nurse, who has the opportunity to work with all members of society, has important duties. Nurses should organize prevention, early diagnosis/treatment, and rehabilitation programs for dependent children and families. In this article, the risk factors that cause substance use in adolescents, protective factors, drug addiction prevention and prevention programs, and the responsibilities of the nurse will be addressed.

Keywords: Addiction, adolescent, education, nursing, prevention, substance abuse

Introduction

Adolescence is defined as the transition period from childhood to adulthood. The World Health Organization (WHO) defines this period as between the ages of 10 and 19. Making up 20% of the world's population, adolescents are at the highest risk group for substance abuse (Mete et al., 2020; World Health Organization [WHO], 2021), which is because in this period, the brains of adolescents are still in development and they do not have sufficient maturity in cognitive, emotional, social, and physical aspects and have low awareness of their own limits (National Institute on Drug Abuse, 2020; WHO, 2021). Adolescents who do not fully complete their cognitive, emotional, social, and physical development show various cognitive, behavioral, and psycho-social symptoms against addiction disorders and cause various problems at the individual and social levels (American Psychiatric Association [APA], 2013; Thomasius et al., 2020). Considering addiction has some stages of development and transformation such as initiation, dependence, and

addiction, substance addiction encompasses a multivariate and complex process (Gulley & Izenwasser, 2021; Hendricks & Dom, 2021).

Substance use among individuals in adolescence stems from a variety of reasons. Curiosity comes first among them. Adolescents start using substances by contemplating what effects the substance will have on them (Bahar, 2018; Ritchi & Roser, 2019). Among other reasons for substance use, the circle of friends also has an important impact. It is extremely important for adolescents to get approval from their friends and to be a part of the circle. Since it is of great importance for adolescent to look different and be appreciated by the environment, adolescents tend to use substances. For this reason, the circle of friends and the group that the adolescent is a part of are important in shaping the adolescent's behavior and turning the adolescent into a substance addict (East et al., 2021). Another reason for adolescents to become a substance addict is that they feel helpless and alone in dealing with the problems they experience. Since the adolescent believes

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that he cannot find any solution to his problem and can see the substance as a way out for himself, he thinks of the substance as a way of coping with the problems encountered. Adolescents experiencing these feelings have a higher risk of substance abuse (Algarni et al., 2021).

When the change in the rate of substance abuse among adolescents in Europe is examined over a 20-year period, it is observed that there is a decrease in alcohol, cigarette, and cannabis consumption (European Monitoring Center for Drugs and Drug Addiction [EMCDDA], 2019, 2021). According to the data of The European School Survey Project on Alcohol and Other Drugs (European School Survey Project on Alcohol and Other Drugs [ESPAD], 2015), the rate of substance use in the 15 – 16 age group is higher in boys than girls, the use of cannabis and psychoactive substances is higher in boys, and the use of cigarette is higher in girls. According to ESPAD (2019) data, there has been a new growth in nicotine use over the last 10 years. In ESPAD countries, 41% of students were smokers with the average prevalence of smoking approximately the same in boys (43%) and girls (40%). Although there are high differences between countries in the prevalence of alcohol use, there is a slight downward trend among adolescents overall between 1995 and 2019. The countries with the highest lifetime use of ecstasy, Lysergic Acid Diethylamide (LSD), or other hallucinogens were found in Estonia and Latvia. There has been a 5% increase in the rate of gambling students in the last 12 months, with the highest rate in Georgia (12%) and the lowest in the Netherlands (1.3%). Gambling disorder was found to be higher in boys than in girls (6.3% for boys and 2.4% for girls). In the last two decades, the increasing popularity of smartphones and tablets and the ease of access to social media and online games have gradually made this a serious problem. The emergence of new addictive substances reveals the necessity of monitoring changes related to substance addiction in the long term (ESPAD, 2019). In Turkey, according to the results of the research conducted by the Ministry of Interior, General Directorate of Security, Department of Combating Narcotic Crimes (2018), the highest rate (35.4%) of those who used drugs at least once in their life was in the 15 – 24 age group. The age group with the highest rate of substance use was the 15 – 34 age group (65%), the average age for the first-time users was 19, and the highest substance use was among high school graduates (Republic of Turkey Ministry of Interior General Directorate of Security Department of Combating Narcotic Crimes, 2018a).

According to the results of the Address-Based Population Registration System, as of the end of 2020, the proportion of the child population in the 0 – 17 age group (22,750,657) was 27.2% of the total population (TUIK, 2021). Preventive and protective interventions for protecting adolescents from risky behaviors—substance addiction—are the leading investments made/planned to be made for today’s children, which have a very high population compared to developed countries. It is reported that prevention and early intervention programs for adolescents are the most appropriate method for solving this problem. The fact that the effort and cost spent for the treatment and reintegration of substance addicts into society are much higher than the effort and cost spent on prevention reveals the importance of prevention studies. It is obligatory for different institutions and organizations to work together to prevent substance addiction

in adolescents (Eleventh Development Plan, 2019; European Drug Report, 2021). In order for these prevention programs to be successful, it is necessary to identify the adolescents at risk and to be aware of the protective factors (Albayrak & Balcı, 2014; Karadeniz et al., 2018). Important responsibilities, therefore, fall on the governments, non-governmental organizations, teachers, families, and especially nurses and other health professionals working in the field of public health and school health. In this paper, the risk factors that cause substance use in adolescents, protective factors, prevention, prevention programs, and the roles of nurses in the prevention of substance addiction will be addressed.

For this purpose, "Pubmed, Cochrane, Science Direct, EBSCOhost" databases were searched by two researchers. The search was carried out in English with the keywords "addiction," "adolescent," "prevention," "substance abuse," "education," and "nursing."

Risk Factors Causing Substance Abuse and Protective Factors

There are some risk factors that cause substance abuse and increase susceptibility in adolescents. These are as follows (Muchiri & dos Santos, 2018; Öztaş et al., 2018):

- Having a family history of substance use disorder,
- Beginning to use substances at an early age,
- Presence of comorbid psychiatric disease,
- Substance use by parents/friends,
- Low academic performance.

The potential effects of risk factors vary depending on age, gender, culture, and the environment in which adolescents live (Albayrak & Balcı, 2014). The consequences are as important as the risk factors that cause substance addiction in adolescents. These consequences include traffic accidents, committing crimes, being a victim in a crime, exhibiting risky behaviors, the emergence of very serious and multidimensional consequences that may extend to neurological disorders, difficulties in fulfilling developmental tasks, and inability to evaluate the possibilities that are important for a successful transition to young adulthood (Karatay & Gürarşlan, 2019; Öztaş et al., 2018).

Protective factors to prevent substance addiction in adolescents are that adolescents should have problem-solving skills, make healthy decisions, have effective interpersonal communication, manage stress and anger, have a family support system (positive family relationships, strong ties, commitment, belief in family values, etc.), and have life skills. Knowing the risk factors that will cause substance addiction in adolescents, the consequences of addiction and protective factors are important to strengthen the effectiveness of efforts to prevent substance abuse (Albayrak & Balcı, 2014).

Preventing Substance Abuse

Preventive interventions for substance abuse are considered to be the most effective and economical method of combat (Dabaghi & Valiopur, 2016). With these interventions, it is aimed to prevent substance use, to prevent experimentation with and regular usage of substance at an early age, to reduce substance use and related

behavioral and emotional problems, to delay the age of onset of all kinds of addictive substances, and to make the person stronger and more determined against substance use (Özbay et al., 2018; Yoldaş & Demircioğlu, 2020).

Interventions to prevent substance addiction in Turkey are carried out under the responsibility of different institutions and organizations such as Ministries of National Education, Youth and Sports, Health, Interior, Justice, Family, Labor and Social Services, Labor and Social Security, Customs and Trade, etc. A serious policy development was declared in Turkey by publishing the National Drugs Policy and Strategy Document by the aforementioned ministries. For example, while the Ministry of National Education is involved in the training and prevention of addiction, the Green Crescent Society devotes all its strength to the fight against substance addiction and prepares and implements training programs within the scope of protective and preventive interventions against it. Despite all these efforts, the increasing rate of substance abuse in Turkey makes it an unavoidable task to carry out preventive interventions with more effective methods and to reach wider masses (Eleventh Development Plan, 2019; Republic of Turkey Ministry of Interior General Directorate of Security Department of Combating Narcotic Crimes, 2018b).

For this reason, all partners, practitioners, politicians, non-governmental organizations, relevant institutions, youth representatives, and researchers should be included in the scope of the study and cooperation should be ensured in order to effectively and comprehensively carry out the interventions planned to be implemented. Thanks to the positive effect of cooperation in preventing substance abuse, it is safe to state that more successful results are observed in preventive interventions in which parents, teachers, public leaders, business circles, religious leaders, and young people participate. In the prevention programs implemented in Turkey, it is seen that informing the individuals at risk of substance use and addiction about substance use and its negative consequences is effective (Eleventh Development Plan, 2019; Yoldaş & Demircioğlu, 2020).

Article 58 of the Constitution of the Republic of Turkey states that "...The State shall take necessary measures to protect youth from addiction to alcohol and drugs, crime, gambling, and similar vices, and ignorance." The statement stipulates that the responsibility of protecting adolescents from risks and empowering them against risks should be undertaken by the state itself (<https://www.mevzuat.gov.tr/MevzuatMetin/1.5.2709.pdf>). The legal basis of preventive interventions is addressed in The Law No. 5395 on Child Protection, Law No. 6291 on Probation Services, Law No. 638 on the Organization and Duties of the Ministry of Youth and Sports, etc., as well as many laws, regulations, legislations and protocols (<https://www.mevzuat.gov.tr/MevzuatMetin/1.5.5395.pdf>). In this respect, all institutions combating addiction should know and effectively implement all relevant laws, bylaws, existing regulations, and protocols (Eleventh Development Plan, 2019)

Environmental and universal protective measures should be taken to prevent substance addiction among adolescents. Through environmental measures, it is aimed to combat substance addiction by changing the cultural, social, physical, and economic environment in which adolescents make their choices

regarding substance use. In the fight against addiction, the policies to be implemented by institutions for environmental prevention are not left to their own initiative but are guaranteed by laws and regulations (TUBİM, 2012).

Universal measures include school, familial, and community-based prevention strategies. School-based prevention interventions, which are within the scope of universal measures to prevent substance addiction in adolescents, aim to increase the awareness of society, and develop responsibility at individual, familial, and social levels. School-based interventions are handled in three groups: programs without interaction and based on information exchange only, programs that focus on helping individuals develop insight into their own emotions and behaviors, and programs that focus on problem-solving skills related to substance use (Nazım & Köseoğlu, 2019). Family-based prevention starts in early childhood. These strategies include strengthening the emotional development of the child, increasing the child's resistance to substance use, and improving social skills (Albayrak & Balcı, 2014). In society-based prevention strategies to prevent substance use among adolescents, public institutions and organizations work on raising awareness in society on the fight against substance use and prevention of addiction, thanks to programs and projects prepared in accordance with their fields of work (Eleventh Development Plan, 2019). Leveraging the power of the press is one of the most effective ways to prevent substance abuse. Considering that audio and visual media shape human life in all segments of society, it has an important role in the fight for preventing substance addiction. The media has an important role in primary protection for substance use through the dissemination of culture and norms against substance use, checking the broadcast related to it and the imposition of sanctions on irresponsible, encouraging and dissuasive broadcast, prohibition of cigarette and alcohol advertisements, encouraging positive attitudes, and broadcasting the positive messages of active and influential people in the society. In addition, it is important to prevent prejudice and stigmatizing attitudes toward children who use substance and to increase the sensitivity of the media on this issue (Albayrak & Balcı, 2014).

Substance Abuse Prevention Programs

Although initiatives to prevent substance addiction are carried out by many public institutions and organizations, preventive interventions for the use of substances still have not reached sufficient levels in our country. Therefore, substance use prevention programs are seriously needed (Griffin & Botvin, 2010). Again, due to the low success rates of medical treatments and rehabilitation programs for substance-addicted individuals, the high probability of starting to use substance again, and the ease of access to drugs today, it has become more important to ensure that the individual denies and protects himself from the drug, rather than preventing the individual from accessing to drugs (Özbay et al., 2018). For this reason, prevention programs play a very serious role in the fight against substance addiction, with their function of delaying the age of onset of substance use and making it more difficult to start the use of other substances (Siyez & Palabıyık, 2009). Therefore, it seems possible to keep individuals completely away from substance addiction, thanks to the life skills to be gained at an early age through prevention programs (Özbay et al., 2019).

The prevention programs have intervention domains such as individual, familial, school, social, and environmental areas. Considering the characteristics and conditions of each domain, it functions as both a risk factor and a protective factor. For this reason, preventive interventions targeting the individual, familial, school, social, and environmental domains offer important opportunities (Özbay et al., 2018; Yoldaş & Demircioğlu, 2020).

It is reported that family-based interventions are important in prevention programs developed against substance use. The aim of family-based prevention programs is to provide parents with skills that will help them to keep their children away from drugs. In these programs, it is aimed to inform families about basic parenting, helping their children, and gaining skills for family cooperation and functionality (Kumpfer, 2014; Small & Huser, 2016). Studies (Kumpfer, 2014; Small & Huser, 2016) show that a functional family with strong and healthy relationships protects children and adolescents from risks, which proves the importance of family-based prevention programs.

School-based prevention programs also play an important role in reducing substance abuse and delinquency risks in adolescents. Because adolescents spend most of their time in and around school, the school ensures that prevention programs are implemented at an early age (Griffin & Botvin, 2010; UNODC, 2020). The purpose of school-based prevention programs is to empower students against drugs, substance use, and the negative consequences of substance use by equipping them with life skills (UNODC, 2020). In this direction, school-based preventive programs, which have positive effects, come to the fore, which, for example, are Project School Using Coordinated Community Efforts to Strengthen Students (SUCCES), Project Towards No Drugs Abuse (TND), Project ALERT, Project Life Skills Training (LST), etc. When examined in general, these programs aim to develop anti-substance norms, problem-solving and goal-setting skills, as well as self-management skills such as coping with anxiety and stress. When the effectiveness of these programs was investigated, it was found that the rate of smoking, alcohol use, and cannabis use of the young people who participated in the program decreased compared to those who did not participate in the program, an increase was observed in the level of knowledge about the effects of substances, their attitudes toward not using substances, and a decrease in their desire and tendency toward substance use (Gorman & Conde, 2010; <https://www.lifeskillstraining.com/>; <http://www.sascorp.org/success.html>; <https://youth.gov/content/project-towards-no-drug-abuse-project-tnd>). As a result, schools are in a higher priority position with their protective, preventive, and developer roles in the prevention of substance use. However, in order to prevent substance addiction, applicable and sustainable programs are needed at both national and international levels (Özbay et al., 2018).

The importance of implementing programs to prevent substance addiction is especially emphasized with the cooperation and coordination of family, school, and society, and it is reported that effective results will be obtained from community-based prevention programs. In community-based prevention programs, it is aimed to cooperate with schools, families, mass media, and public and non-governmental organizations to protect and strengthen

adolescents against substance use in a coordinated way (Özbay et al., 2018, 2019; Yoldaş & Demircioğlu, 2020).

The aim of the addiction prevention programs is to make the individual knowledgeable about addictive substances, recognize the risks, develop a sense of responsibility and decision-making skills, develop problem-solving and communication skills, develop conflict management and self-regulation skills as well as social skills, and gain the ability to cope with substance cravings. Thus, the individual shall be protected against the substance by making himself stronger through knowledge and skills. To this end, important points as to the issues to be observed in an effective prevention program were established in the literature. In developing prevention programs, the following criteria should be considered (Özbay et al., 2018, 2019; Yoldaş & Demircioğlu, 2020):

- Applicability and acceptability,
- Being efficient on substance use behaviors,
- Setting measurable goals,
- Aiming at different stages of prevention,
- Targeting more than one item,
- Developing messages suitable for gender and culture,
- Ensuring that the prevention program and its effects are enduring,
- Not relying solely on information,
- Emphasizing that substance use is not a common and normal behavior,
- Enabling adolescents to gain resistance,
- Having the purpose of increasing psycho-social abilities,
- Allowing for volunteers,
- Using interactive training methods,
- Choosing appropriate strategies for the target audience,
- Benefiting from different practitioners,
- Supporting the program process with research,
- Planning a long-term/continuous program
- Creating supportive and recurring programs,
- Making use of different channels to reach the target audience,
- Designing the program and developing methods in specific to school, family, and society,
- Adherence to the application etc.

Within the scope of education programs aimed at preventing substance use, an ongoing practice in all countries for years has been to give information seminars on substance abuse to the students gathered in conference halls of schools. However, the effectiveness of such activities has been controversial in recent years (Albayrak & Balcı, 2014; Özbay et al., 2018). On the other hand, it is reported that programs that include the development of psychosocial skills as well as giving information are much more effective (Botvin, 2015; Botvin & Griffin, 2015; Dabaghi & Valiopur, 2016). In the programs targeting the development of psychosocial skills, adolescents' skills in communication, building relationship and coping, self-awareness, etc., are aimed to improve (UNICEF, 2019). Therefore, today, evidence-based prevention programs are implemented in programs aiming to develop psychosocial skills to prevent substance use in children and adolescents. Evidence-based prevention programs should be based on an academic/scientific theory, produce measurable positive results, ensure the continuity of the positive

effects, have the capacity to be replicated and disseminated, be applicable at school, family and community levels, and be based on psychosocial theories that focus on the etiology of adolescent substance use, risk, and protective factors (Bulut & Yeşilkayalı, 2020; Kumpfer & Magalhaes, 2018). In the studies (Bulut & Yeşilkayalı, 2020; Gazioğlu & Canel, 2015), it has been understood that the most effective program, especially in school-based prevention programs, is the life skills development program.

In the substance use prevention programs of adolescents, there is a multidimensional substance use prevention program developed by Dabaghi and Valipour (2016). This program aims to develop adolescents' life skills (decision-making, communication, self-awareness, coping with stress and rejection), to identify the need to protect their body, and to improve their ability to deal with substance use and stress. The life skills training program developed by Botvin (2015) is based on providing adolescents with life skills such as self-knowledge, conflict resolution, confidence, social skills, communication skills, overcoming anger and anxiety, and decision-making. The 4-H Model, which is a life skills training program, refers to the dimensions of my head, my heart, my hands, and my health with the initials "H" in English and includes preventive interventions for individuals at risk of substance use (Botvin, 2015; Botvin & Griffin, 2015).

In Turkey, the Positive Youth Development Life Skills Program was created based on the 4-H Model. With this program, it is aimed to develop the characteristics of the individual and to give him the strength to overcome all the difficulties he shall encounter in his life, facilitate the life of the individual with life skills, increase the quality of life, and improve the individual's skills in competence, trust, establishing relationships, and helping others through the individual's character structure, etc. (Cesim et al., 2019). It is recommended to determine the life skills needs of adolescents with addiction risk and to enrich the programs in this context with needs analysis studies to be carried out by taking different individual characteristics and social realities in Turkey into account (Özbay et al., 2018).

In line with the recommendations of different researchers, the characteristics of effective prevention programs are as follows (Baş, 2019; Small & Huser, 2016):

- The characteristics and needs of the group to which the program will be implemented should be taken into account,
- The program should be focused on psychosocial development,
- Knowledge, emotions, attitudes, and behaviors should be acquired together with life skills,
- The program should include different teaching methods,
- The duration of the program should be long enough to achieve the highest level of objectives,
- Positive relationships should be developed and positive achievements should be emphasized,
- The program should have cultural sensitivity,
- The program should be carried out in harmony with the family, peers, school, and society in an ecological context,
- The effectiveness of the program should be proven with standard measurement tools and methods.

Roles of Nurses in the Prevention of Substance Abuse

The prevention and treatment process of substance abuse is a long-term change and teamwork is very important in this process. Nurses who take part in the team and whose general authorities and responsibilities are established by the regulation (Hemşirelik Yönetmeliğinde Değişiklik Yapılmasına Dair Yönetmelik, Türkiye Cumhuriyeti Resmi Gazetesi, 2011) should fulfill their responsibilities. According to this regulation, important responsibilities are given to the school health nurses, community mental health nurses, and alcohol and substance addiction center nurses regarding substance addiction. The roles of nurses, who are one of the members of the health care team in the prevention of addiction, are to diagnose the risks related to substance abuse and to take the necessary precautions; to provide education and raise awareness about the prevention of substance use; to provide a supportive, rehabilitative, and therapeutic approach to adolescents and families; to be an effective member of the health care team; to take an active role as a healthcare professional; to provide training to other members of the healthcare team; to conduct research for the development of nursing practices; and to share these with their colleagues (Imkome, 2018; Naegle & Fougere, 2017). Nurses should follow the legal regulations in order to develop and strengthen their own roles, receive training in the areas they need, contact their fellow colleagues working on substance addiction and should get in touch with the Psychiatric Nursing Association, research the resource people and organizations to cooperate in the society, and get press and visual media coverage for substance addiction (Soltis-Jarrett, 2020; Srivastava et al., 2018).

Conclusion and Recommendations

Overcoming addiction in adolescence is one of the primary problems that await solutions today. This problem, by its very nature, requires a multilateral and coordinated struggle. With the acceleration of globalization and the advancements in technology today, it is necessary to exploit national and international resources effectively in order to establish technology-supported monitoring and evaluation systems for the development of the individual, to create risk maps, and to strengthen risk groups. In the effective fight against substance abuse, protective, preventive programs, and rehabilitative interventions should be systematic, holistic, multi-sectoral, interdisciplinary, and based on mutual communication. In this context, great responsibilities fall on the shoulders of nurses. The main strategies to be implemented by nurses in preventing substance addiction are to protect the person from a risky situation, to eliminate the risk before a problem occurs, and to apply interventions for treatment and rehabilitation in the adolescent whose substance addiction is detected. Considering that the time and cost allocated for the rehabilitation of substance-addicted individuals is very high, prevention interventions should be carried out by nurses with effective programs at the national level. Comprehensive models should be developed that can generate successful results in different risk situations and focus on strengthening the positive characteristics of adolescents in the developmental process. Preventive interventions should be in line with the 21st-century realities and contemporary standards, aiming at the empowerment of the individual.

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References

- Albayrak, A., & Balci, S. (2014). The prevention of drug abuse in young adults. *Journal of Education and Research in Nursing*, 11(2), 30 – 37. Retrieved from <https://jer-nursing.org/EN/genclerde-madde-ba-gimliginin-onlenmesi-13762>
- Algarni, M., Hadi, M. A., Yahyouche, A., Mahmood, S., & Jalal, Z. (2021). A mixed-methods systematic review of the prevalence, reasons, associated harms and risk-reduction interventions of over-the-counter (OTC) medicines misuse, abuse and dependence in adults. *Journal of Pharmaceutical Policy and Practice*, 14(76), 1 – 16. [CrossRef]
- American Psychiatric Association. What is a substance use disorder? Retrieved from <https://www.psychiatry.org/patients-families/addiction/what-is-addiction>
- Bahar, A. (2018). Causes of drug use and the role and importance of communicative approaches during the addiction period: A case study through police records. *Connectist*, 55, 1 – 36. [CrossRef]
- Baş, A. U. (2019). Okul-temelli önleme: Etkili okul-temelli önleme programlarının özellikleri. *Okul Psikolojik Danışmanlığı Dergisi*, 2(1), 73 – 94. Retrieved from <https://dergipark.org.tr/tr/pub/opd/issue/46711/570121>
- Botvin, G. J. (2015). *Life skills training: Promoting health and personal development*. Princeton Health Press.
- Botvin, G. J., & Griffin, K. W. (2015). Life skills training: A competence enhancement approach to tobacco, alcohol, and drug abuse prevention. In L. M. Scheier (Ed.), *Handbook of adolescent drug use prevention: Research, intervention strategies, and practice*. American Psychological Association.
- Bulut, T., & Yeşilkayalı, E. (2020). Çocuk ve gençlerde madde bağımlılığının önlenmesine yönelik programların incelenmesi. *Sosyal Çalışma Dergisi*, 4(1), 27 – 32. Retrieved from <https://dergipark.org.tr/tr/download/article-file/1139118>
- Cesim, Ö. B., Abaoğlu, H., Çelik, Z., & Demirok, T. (2019). Çocuk ve ergenlerde yaşam becerileri ve ergoterapi. *H. Ü. Sağlık Bilimleri Fakültesi Dergisi*, 6(3), 265 – 275. [CrossRef]
- Dabaghi, P., & Valipour, H. (2016). Effectiveness of a multidimensional prevention program on reducing substance trends among young people. *Addicta: The Turkish Journal on Addictions*, 3(1), 77 – 85. [CrossRef]
- East, K., McNeill, A., Thrasher, J. F., & Hitchman, S. C. (2021). Social norms as a predictor of smoking uptake among youth: A systematic review, meta-analysis and meta-regression of prospective cohort studies. *Addiction*, 116(11), 2953 – 2967. [CrossRef]
- European Monitoring Center for Drugs and Drug Addiction (EMCDDA). (2019). *ESPAD REPORT 2019: Results from the European school survey project on alcohol and other drugs*. Retrieved from http://www.espad.org/sites/espad.org/files/2020.3878_EN_04.pdf
- European Monitoring Center for Drugs and Drug Addiction (EMCDDA). (2021). *European drug report 2021: Trends and developments*. Retrieved from https://www.emcdda.europa.eu/publications/edr/trends-developments/2021_en
- Gazioğlu, A. E. İ., & Canel, A. N. (2015). A school-based prevention model in the fight against addiction: Life skills training. *Addicta: The Turkish Journal on Addictions*, 2(2), 23 – 44. [CrossRef]
- Gorman, D. M., & Conde, E. (2010). The making of evidence-based practice: The case of project ALERT. *Children and Youth Services Review*, 32(2), 214 – 222. [CrossRef]
- Türkiye İstatistik kurumu (TUIK). (2021). İstatistiklerle çocuk, 2020. *y%C4%B1m%C4%B1nda%20%27%2C2%20oldu*. Retrieved from <https://data.tuik.gov.tr/Bulten/Index?p=İstatistiklerle-Cocuk-2020-37228#:~:text=Birle%C5%9Fmi%C5%9F%20Milletler%20tan%C4%B1m%C4%B1na%20g%C3%B6re%3B%200>
- Constitution of the Republic of Turkey. (1982). *Law no. 2709*. Retrieved from <https://www.mevzuat.gov.tr/MevzuatMetin/1.5.2709.pdf>
- Griffin, K. W., & Botvin, G. J. (2010). Evidence-based interventions for preventing substance use disorders in adolescents. *Child and Adolescent Psychiatric Clinics of North America*, 19(3), 505 – 526. [CrossRef]
- Gulley, J. M., & Izenwasser, S. (2021). Adolescent drug addiction. *Pharmacology, Biochemistry, and Behavior*, 203, 173151. [CrossRef]
- Hendriks, V. M., & Dom, G. (2021). Proactive psychiatry in addiction. *Tijdschrift voor Psychiatrie*, 63(2), 125 – 128. Retrieved from <http://www.tijdschriftvoorpsychiatrie.nl/en/issues/561/articles/12474>
- Imkome, E. U. (2018). Nursing care for persons with drug addiction. *Drug Addiction*, 49 – 70. [CrossRef]
- Karadeniz, H., Birincioğlu, İ., Ketenci, H. Ç., & Karabacak, V. (2018). Evaluation of drug addiction in eastern Black Sea Region (2010 – 2013). *Karadeniz Chemical Science and Technology*, 2, 32 – 36. Retrieved from <https://dergipark.org.tr/tr/download/article-file/498655>
- Karatay, G., & Gürarlan, N. G. (2019). Factors affecting substance use and self-efficacy status of students in eastern Turkey. *Ciência and Saúde Coletiva*, 24(4), 1317 – 1326. [CrossRef]
- Kumpfer, K. L. (2014). Family-based interventions for the prevention of substance abuse and other impulse control disorders in girls. *International Scholarly Research Notices*, 2014, 308789. [CrossRef]
- Kumpfer, K. L., & Magalhães, C. (2018). Strengthening families program: An evidence-based family intervention for parents of high-risk children and adolescents. *Journal of Child and Adolescent Substance Abuse*, 27(3), 174 – 179. [CrossRef]
- Mete, B., Söyler, V., & Pehlivan, E. (2020). Adölesanlarda sigara içme ve madde kullanma prevalansı. *Bağımlılık Dergisi*, 21(1), 64 – 71. Retrieved from <https://dergipark.org.tr/tr/download/article-file/985953>
- Muchiri, B. W., & dos Santos, M. M. L. (2018). Family management risk and protective factors for adolescent substance use in South Africa. *Substance Abuse Treatment, Prevention, and Policy*, 13(1), 24. [CrossRef]
- Naegle, M., & Fougere, M. A. (2017). Nursing roles in the care of patients with substance use disorders. *Journal of Addictions Nursing*, 28(3), 109. [CrossRef]
- National Institute on Drug Abuse. (2020). *Drugs, brains, and behavior: The science of addiction*. Retrieved from <https://www.drugabuse.gov/sites/default/files/soa.pdf>
- Nazım, A. Ö., & Köseoğlu, M. (2019). Bağımlılık yapıcı madde kullanımıyla mücadelede etkili bir uygulama alanı: Okul sosyal hizmeti. *Anadolu Psikiyatri Dergisi*, 20(1), 116 – 118. Retrieved from <https://alpha-psychiatry.com/Content/files/sayilar/57/116-118.pdf>
- Eleventh Development Plan. (2019). *Objectives and Policies of the Plan*. Retrieved from https://www.sbb.gov.tr/wp-content/uploads/2021/12/Eleventh_Development_Plan_2019-2023.pdf
- Özbay, Y., Büyükoztürk, Ş., Tomar, İ. H., Eşici, H., Aliyev, R., Yancar, C., & Kurnaz, Z. (2019). Protective and preventative factors in struggling with addiction: The role of life skills. *Addicta: The Turkish Journal on Addictions*, 6(3), 907 – 961. [CrossRef]
- Özbay, Y., Yılmaz, S., Büyükoztürk, Ş., Aliyev, R., Tomar, İ. H., Eşici, H., Yancar, C., & Akyılmaz, F. D. (2018). Substance dependence: Reinforcing the individual for a clean life. *Addicta: The Turkish Journal on Addictions*, 5(1), 113 – 130. [CrossRef]
- Öztaş, D., Kalyon, A., Ertuğrul, A., Gündoğdu, Ç., Balcıoğlu, H., Sağlan, Y., Yancar, C., & Akyılmaz, F. D. (2018). Evaluation of risk factors affecting substance use among tenth-grade students. *BioMed Research International*, 2018, 1407649. [CrossRef]

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- Project SUCCESS (schools using coordinated community efforts to strengthen students). Retrieved from <http://www.sascorp.org/success.html>
- Project towards no drug abuse (project TND). Retrieved from <https://youth.gov/content/project-towards-no-drug-abuse-project-tnd>
- Ritchie, H., & Roser, M. (2019). *Opioids, cocaine, cannabis and illicit drugs. Our world in data*. Retrieved from <https://ourworldindata.org/illicit-drug-use>
- Siyez, D., & Palabıyık, A. (2009). Günebakan madde bağımlılığını önleme eğitim programının lise öğrencilerinin madde kullanım sıklığı, uyuşturucu maddeler hakkındaki bilgi düzeyleri ve yanlış inanışları ile madde reddetme becerileri üzerindeki etkisi. *Elektronik Sosyal Bilimler Dergisi*, 8(28), 56 – 67. Retrieved from <https://dergipark.org.tr/tr/download/article-file/70102>
- Small, S., & Huser, M. (2016). Family-based prevention programs. In R. J. R. Levesque (Ed.), *Encyclopedia of adolescence*. Springer International Publishing.
- Soltis-Jarrett, V. (2020). Integrating behavioral health and substance use models for advanced PMHN practice in primary care: Progress made in the 21st century. *Archives of Psychiatric Nursing*, 34(5), 363 – 369. [CrossRef]
- Srivastava, K., Chaudhury, S., Bhat, P. S., & Mujawar, S. (2018). Media and mental health. *Industrial Psychiatry Journal*, 27(1), 1 – 5. [CrossRef]
- The United Nations Children’s Fund (UNICEF) (2019). Mental health and psychosocial technical note. Retrieved from <https://www.unicef.org/media/73726/file/UNICEF-MH-and-PS-Technical-Note-2019.pdf>
- Thomasius, R., Arnaud, N., Holtmann, M., & Kiefer, F. (2020). Substance-related disorders in adolescence and young adulthood. *Zeitschrift für Kinder- und Jugendpsychiatrie und Psychotherapie*, 48(6), 448 – 452. [CrossRef]
- TUBİM 2012 yılı Türkiye raporu. Türkiye, yeni gelişmeler, trendler, seçilmiş konular. Retrieved from <http://www.sck.gov.tr/wp-content/uploads/2020/02/2012-T%C3%BCrkiye-Uyu%C5%9Fturucu-Raporu.pdf>
- Türkiye Cumhuriyeti İçişleri Bakanlığı Emniyet Genel Müdürlüğü Narkotik Suçlarla Mücadele Daire Başkanlığı. (2018a). *Türkiye genel nüfusta tütün, alkol ve madde kullanımına yönelik tutum ve davranış araştırması raporu*. Retrieved from <http://www.narkotik.pol.tr/kurumlar/narkotik.pol.tr/Duyurular/T%C3%9CRK%C4%B0YE%E2%80%99DE%20GENEL%20N%C3%9CFUSTA%20T%C3%9CT%C3%9CN%20ALKOL%20VE%20MADDE%20KULLANIMINA%20Y%C3%96NEL%20B0K%20TUTUM%20VE%20DAVRANI%C5%9E%20ARA%C5%9ETIRMASI.pdf>
- Türkiye Cumhuriyeti İçişleri Bakanlığı Emniyet Genel Müdürlüğü Narkotik Suçlarla Mücadele Daire Başkanlığı. (2018b). *Türkiye Uyuşturucu Raporu*. Retrieved from <http://www.narkotik.pol.tr/kurumlar/narkotik.pol.tr/Duyurular/2018%20TURKIYE%20UYUSTURUCU%20RAPORU.pdf>
- United Nations Office on Drugs and Crime (UNODC). (2020). Handbook on youth participation in drug prevention work. Retrieved from https://www.unodc.org/res/prevention/youth-initiative/resources_new_html/Handbook_on_Youth_Participation.pdf
- World Health Organization (WHO). (2021). *Adolescent Health*. Retrieved from https://www.who.int/health-topics/adolescent-health#tab=tab_1
- Hemşirelik Yönetmeliğinde Değişiklik Yapılmasına Dair Yönetmelik, Türkiye Cumhuriyeti Resmi Gazetesi. (2011). Retrieved from <https://www.saglik.gov.tr/TR,10526/hemşirelik-yonetmeliginde-degisiklik-yapilmasina-dair-yonetmelik.html>
- Yoldaş, C., & Demircioğlu, H. (2020). Madde kullanımını ve bağımlılığını önlemeye yönelik psikoeğitim programlarının incelenmesi. *Bağımlılık Dergisi*, 21(1), 72 – 91. Retrieved from <https://dergipark.org.tr/tr/download/article-file/970369>