

DRUG PREVENTION PROGRAMS FOR ADOLESCENTS: WHAT DID WE LEARN IN THE LAST 20 YEARS?

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This review aims at giving an overview of empirical data obtained over the past twenty years on the efficacy, quality, and availability of adolescent substance abuse prevention and treatment. Since the growing amount of evidence showed that substance abuse should be treated as a top-priority public health problem instead of a criminal justice issue, establishing and delivering the evidence-based prevention and treatment programs came into focus. Findings of the recent meta-analyses nominated the ecological models of family-based therapy as treatments of choice, as well as any other approach that integrates family therapy with evidence-based technics of cognitive-behavioral therapy and motivational interventions. Unfortunately, existing data still indicate the modest rankings of interventions quality, as well as significant limitations when it comes to prevention and treatment availability and delivery.

KEY WORDS: substance abuse / prevention / adolescents

INTRODUCTION

Substance abuse (SA) by accounting for 11% of the total burden of disease, proved to be one of the leading health risk factors (GBD 2013 Risk Factors Collaborators, 2015). Globally, there are approximately 35 alcohol use-related deaths and four illicit drug use-related deaths per 100 000 population; moreover, SA accounts for almost 13 disability-adjusted life years lost per 1000 population (WHO, 2010). Additionally, social and economic costs of drug use only in England and Wales in 2000 ranged from £10.1bn to £17.4bn (McDougall & Culyer, 2002). On the other hand, economic analysis of costs and consequences of the treatment of drug misuse provided evidence on its cost-effectiveness (Godfrey et al., 2004).

Adolescents (12–26 years) have been recognized as a particularly vulnerable group, especially those whose parents misuse drugs, young offenders, sex workers, looked-after children, young homeless, and school excluders/truants (Canning et al., 2004). According to the Substance Abuse and Mental Health Services Administration [SAMHSA] (2004a), approximately 8.9% of the total adolescent population (i.e., 2.2 million) in the USA in 2003 suffered from SA. Comparably, in the random sample of

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4,023 early adolescents, the 12-month substance abuse and dependence prevalence was 8.2% for boys and 6.2% for girls (Kilpatrick et al., 2003).

There are many reasons for developing specialized preventive and treatment programs for adolescents only. Some of them are that adolescents have higher rates of dual diagnosis, different developmental needs, and higher rates of binge and opportunistic use in comparison with adults (Brannigan et al., 2004). Furthermore, it was shown that the earlier the use of drugs, the higher the risk for substance use disorders, and the higher their severity (Robins & Przybeck, 1985). Finally, sooner the treatment begins, the duration and impact of SA are minimized (Dennis et al., 2005).

1. EFFECTIVENESS OF SA PROGRAMS

Four levels of prevention are defined by the European Commission of Social Sciences (1998): 1) primary prevention aiming at preventing the onset of a substance-related problem; 2) secondary prevention applied in high-risk groups or when a problem exists but is not yet fully manifested; 3) Tertiary prevention (Type A) aimed at treating the fully manifested problem aiming at preventing future harm, and 4) Tertiary prevention (Type B) preventing relapse. Secondary and tertiary prevention is usually also called "treatment". Concerning the therapeutic setting, one can differentiate hospital inpatient, outpatient therapy, and therapeutic community programs (e.g., school-based programs). Also, interventions could be distinguished based on: 1) their theoretical background (e.g., behavioral, cognitive-behavioral, family-oriented, etc.); 2) population (targeted or universal), and 3) whether sessions are individual or group; led by professional, peer or self-guided; intensive or brief; mediated or not by internet/computer, etc.

Around 20 years ago, the UK's Health Development Agency did a systematic review of the existing knowledge on adolescent SA prevention programs. Main conclusions could be summarized as follows: 1) programs were mainly focused on primary prevention and more often on tobacco, alcohol and marijuana misuse than on illicit drugs; 2) program's effects were small and more likely to decrease with time; 3) there was a lack of programs and studies in pre-adolescents and early adolescents, and 4) significant methodological limitations and problems were found (e.g., research biases, lack of programs for people in-high-risk, absence of long-term follow-ups, etc.) (Canning et al., 2004). Both school-based interventions and universal prevention programs were estimated as being more effective for lower-risk adolescents than those at higher risk or adolescents who already use the drugs. Some more specific findings and implications were also emphasized: 1) police-led information-based programs seem to be ineffective, 2) programs led by teacher show different results, mainly in raising awareness or changing attitude, 3) peer-led programs proved to be most beneficial for the child or young person delivering the program, 4) British parent-oriented programs have not been adequately evaluated, although there is an indication that such programs are poorly attended, especially by highrisk families (Canning et al., 2004).

How did we proceed since then? Weisz et al. (2006) compared evidence-based treatments (EBTs) with usual clinical care. They reported the small to medium effects at posttreatment, slightly increased at follow-up, in favor of EBTs. Different authors continued investigating the effectiveness of various (EB) interventions. For example, a meta-analysis on effects of outpatient treatments for adolescent SA done in the sample of 2,307 adolescents revealed several important conclusions: 1) Multidimensional Family Therapy (MDFT), Multi-Systemic Therapy (MST), Functional Family Therapy

(FFT), Cognitive Behavioural Therapy interventions (CBT-I and CBT-G) emerged as well-established models for SA treatment, 2) Brief Strategic Family Therapy (BSFT), Behavioural Family Therapy (BFT) were probably efficacious, 3) promising support was identified for the Minnesota 12-step approach, Transitional Family Therapy (TFT), and Strength Oriented Family Therapy (SOFT), 4) none of the treatment approaches were superior to any others (Waldron & Turner, 2008). Similarly, Behavioral Treatment, Teaching Family, and MDFT maintained significant reductions in cannabis use at 12 months posttreatment (Bender et al., 2011). Interestingly, the authors also reported similarly moderate effects for individual and FBT. In line with this are the conclusions made by Tripodi and Bender (2011) that FBTs and individual-based treatments had similar, small-to-moderate effects on alcohol or marijuana outcomes in samples of juvenile offenders. Finally, only ecological family therapy, individual/group CBT, and brief MI interventions (targeting motivation to reduce SA) proved their effectiveness in two or more methodologically stronger studies (Becker & Curry, 2008).

On the other hand, when it comes to the treatment-comparison, a meta-analysis suggested that family therapy (FFT, MFT, FSN, and MST) is the treatment with the most robust evidence of comparative effectiveness (Tanner-Smith et al., 2013). Similar findings were reported five years earlier (Liddle et al., 2008). Once more, FBTs had statistically significant but small effects as compared to treatment-as-usual and as compared to alternative therapies (Baldwin et al., 2012).

Comparable effects of programs aimed at treating co-occurring problems of SA, such as suicidality (Esposito-Smythers et al., 2011), delinquency (Baldwin et al., 2012), and depression (Kendall et al., 2004) were found. Also, the combined effects of CBT for SA and medications were investigated (Riggs et al., 2011; Riggs et al., 2007).

Further steps in investigating new approaches have been made. For instance, a meta-analysis of the effects of brief alcohol interventions showed small reductions in alcohol consumption and alcohol-related problems among adolescents and young adults (Tanner-Smith & Lipsey, 2015). These effects persisted for up to one year after the intervention, and no moderation effects of participant demographics, intervention length, or intervention format were found. In comparison with other brief interventions, MI was associated with the most substantial effects (Tanner-Smith & Lipsey, 2015). Furthermore, MI showed small effects on alcohol and drug use, and to some extent, a larger effect on tobacco use, although long-term maintenance of the effects remained unclear (Jensen et al., 2011).

Following the indications that interventions could be appropriately delivered via web-based video teleconferencing (WBVTC) (Hogue et al., 2014), researchers started investigating the usefulness of this medium in the SA field. A meta-analysis on the effectiveness of internet and computer interventions in reducing the frequency of cannabis use indicated significant small short-term effects and no moderation roles of gender, setting, age, individual vs. family dyad, etc. (Tait et al., 2013). Also, computer-delivered interventions seem to reduce the quantity and frequency of drinking among college students, and their effects were comparable to alternative alcohol-related comparison interventions (Carey et al., 2009).

Debate on how to prevent, reduce and control, potentially iatrogenic effects, such as the “deviancy training”, in group therapy, which is among the most usual forms of treatment, raised as well (Kaminer, 2005). For instance, it was found that group treatment intervention was beneficial for marijuana users with more severe use histories (Battjes et al., 2004). In contrast, adolescents who entered treatment with less severe use

histories reported greater marijuana use at follow-up. Thus, Knudsen (2009) suggested a division of high and low-intensity users into two treatment groups, as well as additional training for counselors in group facilitation to reduce potential iatrogenic effects.

Finally, Hogue et al. (2014) updated us with the analysis of 19 comparative studies done 2007-2013 and categorized corresponding treatments based on the level of empirical support designations (Chambless & Hollon, 1998). These were their conclusions: 1) ecological FBT, group and individual CBT were deemed Well Established; 2) behavioral FBT and MI were considered to be Probably Efficacious; 3) drug counseling was deemed to be Possibly Efficacious; and 4) four integrated treatment models were considered to be Well Established or Probably Efficacious (Hogue et al., 2014).

2. SA PROGRAMS' QUALITY

Cuijpers (2002) formulated EB quality criteria for school-based drug prevention programs, among which were interactive delivery methods, the “social influence model”, focus on norms, a commitment not to use and intentions not to use, adding community interventions, the use of peer leaders, and adding life skills to programs. Canning et al. (2004) added booster sessions and intensity. Studies, however, indicated that not all the elements are comparably relevant for each type of treatment. For example, a review of alcohol and tobacco computer interventions found no advantage for guided interventions (Rooke et al., 2010).

Still, both Canning et al. (2004) and Waldron and Turner (2008) stated that no study actually tested assumed mediators and mechanisms of change. The situation has slightly changed since then, although studies were conducted mainly from the same group of authors investigating MI. Some of the investigated mediators were motivation to change (Murphy et al., 2010; Magill et al., 2017), changes in protective behavioral strategies (Murphy et al., 2012), self-efficacy for change and intention to drink (Magill et al., 2017). Interestingly, Henderson et al. (2009) reported that MDFT, in comparison with CBT-G, was more connected to parental monitoring, which in turn increased the adolescents' abstinence.

2.1. Empirical evidence on SA programs quality

Nine proposed elements of effective treatment for adolescent SA were assessed in 144 programs and results were worrying: 1) mean rating was 23.8 out of 45; 2) top-quartile programs were not more likely to be accredited; 3) the majority of interventions only scored at least 4 on qualified staff, and 4) the elements with the poorest-quality performance were: assessment and treatment matching, engaging and retaining teens in treatment, gender and cultural competence, and treatment outcomes (Brannigan et al., 2004).

On the ground of this study, several groups of authors did their examinations in the following years. One of them was performed by Mark et al. (2006). They assessed, to some extent, different treatment components in USA facilities that had at least ten adolescent clients. Main results were not generally positive, but a bit more promising: 1) although programs provided comprehensive assessments of the SA needs of their clients, they rarely attended to other health needs that frequently co-occur with adolescent SA;

2) programs did not offer specific curricula to meet the developmental and cultural needs of clients, and 3) many facilities, however, did conduct discharge planning and provided aftercare (Mark et al. 2006).

Two years later, Becker and Curry (2008) reviewed 31 clinical trials and reported modest overall levels of quality-of-evidence across studies. Finally, Knudsen (2009) presented comparable results: 1) the data on nine domains of treatment quality revealed medium levels of quality and 2) none of the programs approached the maximum possible value of this scale, while the highest percentage of actual components reported by a program was about 79% of the possible components.

3. PROGRAMS' AVAILABILITY AND DELIVERY

Despite that providing effective adolescent intervention has become a public health priority already in the beginning of 21st century (Physician Leadership on National Drug Policy, 2002) and that there were 4291 registered adolescent specialty treatment programs in 2003 (Godley & White, 2005), only about one-third of SA facilities had adolescent specialty programs and only about 10% of adolescents with needing treatment entered treatment in 2006 (SAMHSA, 2007a). In line with this are the later findings of Knudsen (2009) that a substantial percentage of treatment organizations either excluded adolescents from admission or integrated them into programs serving adults.

World Health Organization (WHO, 2017) has recently published a comprehensive report on the worldwide situation when it comes to the SA treatments availability: 1) more than 80% of countries have less than 60% national school-based prevention coverage, whereas 35% of the low- and lower-middle-income countries reported having no national coverage, and 2) the main focus of drug use prevention where children and adolescents (78% of countries) while alcohol prevention targeted children and adolescents only in 38%. Concerning the quality of delivery, again results were not very positive: 1) no training programs for the treatment of substance use disorders was found in 52% of low-income countries and 16% of high-income countries; 2) 57% of low-income countries and 17% of high-income countries reported no professional development/education in substance use prevention; 3) more than one-third of countries (and 60% of low-income countries) reported no availability of postgraduate training programs for any of the workforces for the treatment of substance use disorders, while 40% have no postgraduate training programs for the workforce engaged in prevention, and finally, 4) the highest availability of postgraduate training was for psychiatrists (52% of countries) and other doctors (49%), and the lowest for counselors (23%) and community health workers (19%).

4. RECOMMENDATIONS FOR FUTURE

Based on the substantial (amount of) scientific and practical evidence, the 2016 United Nations General Assembly Special Session on drugs (UNGASS 2016) has released the Outcome Document stating that substance-related disorders are “complex multifactorial health disorders”, more specifically brain disorders, that are preventable and treatable, even in the most severe forms, and “not the result of moral failure or criminal behavior” (Volkow et al., 2017). These conclusions, as well as the stance that “criminal sanctions are ineffective at preventing or addressing these disorders” were

adopted unanimously by all the UN members. Moreover, the UNGASS 2016 Outcome Document provided some practical recommendations: 1) elimination of stigma and discrimination and promotion of a shift from exclusion and blame toward support and compassion; 2) addressing SA disorders as public health problems instead of criminal justice issues; 3) implementation of EB prevention programs, both universal and targeted to high-risk individuals, whereas the highest priority should be given to interventions targeting children and youth; 4) application of EB treatments followed by a chronic care model as used for other chronic conditions, which along with routine screening should be integrated into the general health care system and be affordable and accessible; 5) engagement of scientific experts in policymaking and evaluation; 6) engagement of the diverse stakeholders, within and between countries, in coordinated policymaking, and 7) supporting drug-related research (Volkow et al., 2017).

Some recommendations regarding specific interventions could also be derived based on the existing and still growing amount of evidence. Namely, concerning the decision on which intervention to adopt, Hogue et al. (2014) suggested the following: 1) any of the several well-established ecological models of FBT; 2) CBT integrated with Motivational Enhancement Therapy; 3) a combination of different EBTs; and 4) usage of WBVTC for boosting the accessibility, cost-effectiveness, and sustainability of SA outpatient programs. It seems that most of the existing treatments apply an eclectic and integrative strategy, using a mix of CBT, FBT, and MI (Knudsen et al., 2009). Also, participation in the 12-step mutual-help groups, Alcoholics Anonymous, and Narcotics Anonymous during the treatment are the usual continuing care resource at discharge (Knudsen et al., 2008). Finally, Ennett et al. (2003) emphasized that the use of EB prevention programs (e.g., Life skills training, Project ALERT) must be more widely promoted and that training is needed to ensure that the programs will be implemented as intended.

Cacciola and colleagues (2015) updated the list of crucial criteria for testing treatment quality. Revised key components of effective adolescent SA programs are assessment, attention to mental health, comprehensive, integrated treatment, family involvement, developmentally informed programs, engage and retain adolescents in treatment, staff qualification and training, culturally competent program, continuing care and recovery supports, and program evaluation.

Last but not least, the recommendations for future research in the area of adolescent SA prevention could be derived. There is an urgent need for randomized control studies on systematically chosen and theoretically justified moderators and mediators of program effectiveness. Furthermore, researchers should focus on the process of tailoring prevention and treatment modalities to different cultural contexts, as well as long-term follow-up effects, and the drop out rates. Finally, the social and public health impact of different drug policies and SA prevention strategies in different countries should be evaluated.

REFERENCES

1. Baldwin, S. A., Christian, S., Berkeljon, A., & Shadish, W. R. (2012). The effects of family therapies for adolescent delinquency and substance abuse: A meta-analysis. *Journal of marital and family therapy*, 38(1), 281-304.
2. Battjes, R. J., Gordon, M. S., O'Grady, K. E., Kinlock, T. W., Katz, E. C., & Sears, E. A. (2004). Evaluation of a group-based substance abuse treatment program for adolescents. *Journal of Substance Abuse Treatment*, 27(2), 123-134.

3. Becker, S. J., & Curry, J. F. (2008). Outpatient interventions for adolescent substance abuse: a quality of evidence review. *Journal of consulting and clinical psychology, 76*(4), 531.
4. Bender, K., Tripodi, S. J., Sarteschi, C., & Vaughn, M. G. (2011). A meta-analysis of interventions to reduce adolescent cannabis use. *Research on Social Work Practice, 21*(2), 153-164.
5. Brannigan, R., Schackman, B. R., Falco, M., & Millman, R. B. (2004). The quality of highly regarded adolescent substance abuse treatment programs: Results of an in-depth national survey. *Archives of Pediatrics & Adolescent Medicine, 158*(9), 904-909.
6. Cacciola, J. S., Meyers, K., Ward, S., Rosenwasser, B., Arria, A., & McLellan, A. T. (2015). Assessing adolescent substance abuse programs with updated quality indicators: the development of a consumer guide for adolescent treatment. *Journal of child & adolescent substance abuse, 24*(3), 142-154.
7. Carey, K. B., Scott-Sheldon, L. A., Elliott, J. C., Bolles, J. R., & Carey, M. P. (2009). Computer-delivered interventions to reduce college student drinking: A meta-analysis. *Addiction, 104*(11), 1807-1819.
8. Chambless, D. L., & Hollon, S. (1998). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology, 66*, 7-18.
9. Cuijpers, P. (2002). Effective ingredients of school-based drug prevention programs: A systematic review. *Addictive behaviors, 27*(6), 1009-1023.
10. Dennis, M. L., Scott, C. K., Funk, R., & Foss, M. A. (2005). The duration and correlates of addiction and treatment careers. *Journal of substance abuse treatment, 28*(2), S51-S62.
11. Ennett, S. T., Ringwalt, C. L., Thorne, J., Rohrbach, L. A., Vincus, A., Simons-Rudolph, A., & Jones, S. (2003). A comparison of current practice in school-based substance use prevention programs with meta-analysis findings. *Prevention Science, 4*(1), 1-14.
12. Esposito-Smythers, C., Spirito, A., Kahler, C. W., Hunt, J., & Monti, P. (2011). Treatment of co-occurring substance abuse and suicidality among adolescents: a randomized trial. *Journal of consulting and clinical psychology, 79*(6), 728.
13. GBD 2013 Risk Factors Collaborators. (2015). Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet (London, England), 386*(10010), 2287.
14. Godfrey, C., Stewart, D., & Gossop, M. (2004). Economic analysis of costs and consequences of the treatment of drug misuse: 2-year outcome data from the National Treatment Outcome Research Study (NTORS). *Addiction, 99*(6), 697-707.
15. Henderson, C. E., Rowe, C. L., Dakof, G. A., Hawes, S. W., & Liddle, H. A. (2009). Parenting practices as mediators of treatment effects in an early-intervention trial of multidimensional family therapy. *The American journal of drug and alcohol abuse, 35*(4), 220-226.
16. Hogue, A., Henderson, C. E., Ozechowski, T. J., & Robbins, M. S. (2014). Evidence base on outpatient behavioral treatments for adolescent substance use: Updates and recommendations 2007-2013. *Journal of Clinical Child & Adolescent Psychology, 43*(5), 695-720.
17. Jensen, C. D., Cushing, C. C., Aylward, B. S., Craig, J. T., Sorell, D. M., & Steele, R. G. (2011). Effectiveness of motivational interviewing interventions for adolescent substance use behavior change: a meta-analytic review. *Journal of consulting and clinical psychology, 79*(4), 433.
18. Kaminer, Y. (2005). Challenges and opportunities of group therapy for adolescent substance abuse: A critical review. *Addictive behaviors, 30*(9), 1765-1774.
19. Kilpatrick, D. G., Ruggiero, K. J., Acierno, R., Saunders, B. E., Resnick, H. S., & Best, C. L. (2003). Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity: results from the National Survey of Adolescents. *Journal of consulting and clinical psychology, 71*(4), 692-700. DOI: 10.1037/0022-006X.71.4.692

20. Knudsen HK, Abraham AJ, Johnson JA, Roman PM. (2009). Buprenorphine adoption in the National Drug Abuse Treatment Clinical Trials Network. *Journal of Substance Abuse Treatment*. 37:307–312.
21. Knudsen HK, Ducharme LJ, Roman PM. (2008). Clinical supervision, emotional exhaustion, and turnover intention: A study of substance abuse treatment counselors in the Clinical Trials Network of the National Institute on Drug Abuse. *Journal of Substance Abuse Treatment*. 35:387–395.
22. Knudsen, H. K. (2009). Adolescent-only substance abuse treatment: Availability and adoption of components of quality. *Journal of Substance Abuse Treatment*, 36(2), 195-204.
23. Liddle, H. A., Dakof, G. A., Turner, R. M., Henderson, C. E., & Greenbaum, P. E. (2008). Treating adolescent drug abuse: A randomized trial comparing multidimensional family therapy and cognitive behavior therapy. *Addiction*, 103(10), 1660-1670.
24. Magill, M., Colby, S. M., Orchowski, L., Murphy, J. G., Hoadley, A., Brazil, L. A., & Barnett, N. P. (2017). How does brief motivational intervention change heavy drinking and harm among underage young adult drinkers?. *Journal of consulting and clinical psychology*, 85(5), 447.
25. Mark, T. L., Song, X., Vandivort, R., Duffy, S., Butler, J., Coffey, R., & Schabert, V. F. (2006). Characterizing substance abuse programs that treat adolescents. *Journal of Substance Abuse Treatment*, 31(1), 59-65.
26. McDougall, C. G. G. E. C., & Culyer, A. (2002). The economic and social costs of Class A drug use in England and Wales, 2000. *Home Office Research, Development and Statistics Directorate*.
27. Murphy, J. G., Dennhardt, A. A., Skidmore, J. R., Borsari, B., Barnett, N. P., Colby, S. M., & Martens, M. P. (2012). A randomized controlled trial of a behavioral economic supplement to brief motivational interventions for college drinking. *Journal of consulting and clinical psychology*, 80(5), 876.
28. Murphy, J. G., Dennhardt, A. A., Skidmore, J. R., Martens, M. P., & McDevitt-Murphy, M. E. (2010). Computerized versus motivational interviewing alcohol interventions: Impact on discrepancy, motivation, and drinking. *Psychology of Addictive Behaviors*, 24(4), 628.
29. Riggs, P. D., Mikulich-Gilbertson, S. K., Davies, R. D., Lohman, M., Klein, C., & Stover, S. K. (2007). A randomized controlled trial of fluoxetine and cognitive behavioral therapy in adolescents with major depression, behavior problems, and substance use disorders. *Archives of Pediatric and Adolescent Medicine*, 161, 1026–1034.
30. Riggs, P. D., Winhusen, T., Davies, R. D., Leimberger, J. D., Mikulich-Gilbertson, S., Klein, C., ... Liu, D. (2011). Randomized controlled trial of osmotic-release methylphenidate with cognitivebehavioral therapy in adolescents with Attention-Deficit= Hyperactivity Disorder and Substance Use Disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 50, 903–914.
31. Robins, L. N., & Przybeck, T. R. (1985). Age of onset of drug use as a factor in drug and other disorders. *NIDA Res Monogr*, 56(1), 178-192.
32. Rooke, S., Thorsteinsson, E., Karpin, A., Copeland, J., & Allsop, D. (2010). Computer-delivered interventions for alcohol and tobacco use: a meta-analysis. *Addiction*, 105(8), 1381-1390.
33. Stein, L. A., Colby, S. M., Barnett, N. P., Monti, P. M., Golembeske, C., Lebeau-Craven, R., & Miranda, R. (2006). Enhancing substance abuse treatment engagement in incarcerated adolescents. *Psychological Services*, 3(1), 25.
34. Tait, R. J., Spijkerman, R., & Riper, H. (2013). Internet and computer based interventions for cannabis use: a meta-analysis. *Drug and alcohol dependence*, 133(2), 295-304.
35. Tanner-Smith, E. E., & Lipsey, M. W. (2015). Brief alcohol interventions for adolescents and young adults: A systematic review and meta-analysis. *Journal of substance abuse treatment*, 51, 1-18.

36. Tanner-Smith, E. E., Wilson, S. J., & Lipsey, M. W. (2013). The comparative effectiveness of outpatient treatment for adolescent substance abuse: A meta-analysis. *Journal of substance abuse treatment, 44*(2), 145-158.
37. Tripodi, S. J., & Bender, K. (2011). Substance abuse treatment for juvenile offenders: A review of quasi-experimental and experimental research. *Journal of Criminal Justice, 39*(3), 246-252.
38. Volkow, N. D., Poznyak, V., Saxena, S., Gerra, G., & UNODC-WHO Informal International Scientific Network. (2017). Drug use disorders: impact of a public health rather than a criminal justice approach. *World Psychiatry, 16*(2), 213-214.
39. Waldron, H. B., & Turner, C. W. (2008). Evidence-based psychosocial treatments for adolescent substance abuse. *Journal of Clinical Child & Adolescent Psychology, 37*(1), 238-261.
40. Weisz, J. R., Jensen-Doss, A., & Hawley, K. M. (2006). Evidence-based youth psychotherapies versus usual clinical care: a meta-analysis of direct comparisons. *American Psychologist, 61*(7), 671.
41. World Health Organization. (2010). *Atlas on substance use (2010): resources for the prevention and treatment of substance use disorders*. Geneva: World Health Organization.
42. World Health Organization. (2017). *ATLAS on substance use 2017: Resources for the prevention and treatment of substance use disorders*.

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PROGRAMI PREVENCIJE UPOTREBE DROGE MEĐU ADOLESCENTIMA: ŠTA SMO NAUČILI U PROTEKLIH 20 GODINA?

Cilj ovog rada je da pruži pregled empirijskih podataka dobijenih u poslednjih dvadeset godina o efikasnosti, kvalitetu i dostupnosti prevencije i tretmana zloupotrebe supstanci među adolescentima. Budući da sve veći broj nalaza ukazuje da zloupotrebu supstanci treba tretirati kao prioritetni zdravstveni problem zajednice, umesto kao krivično delo, fokus je stavljen na razvoj i primenu proverenih preventivnih programa i tretmana. Nalazi skorašnjih meta-analiza izdvajaju ekološke modele porodične terapije kao tretmane izbora, a uz njih i pristupe koji integrišu porodičnu terapiju sa na dokazima utemeljenim tehnikama kognitivno-bihevioralne terapije i motivacionih intervencija. Nažalost, postojeći podaci ukazuju na skroman kvalitet postojećih programa, kao i na značajna ograničenja u dostupnosti i sprovođenju prevencije i tretmana.

KLJUČNE REČI: zloupotreba supstanci / prevencija / tretman / adolescenti