Driving Change Through Addiction Prevention Advocacy: Strategies for Lasting Impact and Effective Messaging

¹Abiola T., ²Orovwigho A., ³Fajimolu O. O.

¹Department of Medical Services, Federal Neuropsychiatric Hospital, Kaduna-Nigeria; ²Department of Clinical Services, Federal Neuropsychiatric Hospital, Enugu-Nigeria; ³Carleton Clinic, Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust, Carlisle, Cumbria, United Kingdom.

Corresponding author:

Abiola T. Department of Medical Services, Federal Neuropsychiatric Hospital, Kaduna-Nigeria.

Email: abiolatob@yahoo.com

Abstract

Background: Addiction, a significant global health challenge, contributes to 1.3% of global disability-adjusted life years (DALYs), indicating a severe impact on health and social systems. Economic analyses underscore the cost-effectiveness of prevention over treatment, emphasizing the crucial role of advocacy in shaping public policy and community well-being.

Methods: This essay examines two foundational models of addiction prevention (i.e., the Leavell and Clark's and the IOM [Institute of Medicine] models) and applies their principles to the domain of advocacy. It explores the development of comprehensive communication strategies and policy influences through a framework that integrates evidence-based practices for lasting change.

Results: Frameworks provided by the models offer clarity on effective advocacy strategies, going beyond awareness to concrete policy shifts. The success of these strategies is evidenced by a decrease in substance use rates, underscoring the maxim that prevention triumphs over cure. The essay juxtaposes the CHAMPS initiative with Ogel's work, highlighting the necessity of age-specific interventions.

Conclusion: Effective addiction prevention advocacy is pivotal for societal health. By integrating the strategies outlined in the models of prevention, such advocacy can become a transformative force in reducing the prevalence of substance use disorders. The approach must be comprehensive, data-driven, and capable of evolving with the population's needs to ensure it resonates across different life stages.

Keywords: Addiction Prevention, Advocacy, Public Policy, Substance Use Disorders, Health Promotion, Evidence-Based Practices.

Introduction

One of the most challenging global health problems is addiction, which affects many people who suffer from alcohol and drug use and their disorders. These problems are a major source of disability worldwide, as shown by the Global Burden of Disease Study led by Degenhardt and colleagues¹. They found that these disorders contribute to 1.3% of global disability-adjusted life years (DALYs), a measure that highlights the severe consequences of addiction for health

and social systems across different populations. This alarming statistic not only shows the need to address substance use problems, but also emphasizes the need for preventive interventions. through advocacy and effective messaging that have a strong impact, create change, and make a lasting positive difference for the well-being of communities around the world.

In an economic analysis by Miller & Hendrie², they found addiction that prevention programs can save up to \$18 in costs related to crime, lost work productivity, and healthcare for every dollar spent, compared to a \$12 return from treatment programs. This impressive cost-benefit ratio establishes prevention as a key element in the modern management of crime and violence. As substance use disorders remain a major cause of global disability, it becomes more apparent that prevention initiatives need to be prioritized along with treatment efforts. This crucial strategy not only helps to reduce the

immediate economic impact but also to lessen the long-term burden of addiction on society.

Designing and implementing effective prevention strategies requires a comprehensive understanding of the complex nature of addiction. Prevention strategies are actions that aim to prevent or delay the initiation of drug use, as well as the development of more severe drug use disorders. The World Health Organization formalized this definition in 2010, which serves as the basis for prevention advocacy efforts³. These efforts include a range of activities that seek to reduce the first exposure to drugs and prevent the escalation to habitual use, which can result in chronic health problems. Such preventative actions are essential in the public health approach to substance abuse, supporting the advocacy efforts that aim to inform policy, influence societal attitudes, and ultimately shape individual behaviors towards a healthier and

more informed community. As we examine challenges and opportunities the of advocating for change in the field of addiction prevention, it becomes evident that the effectiveness of our message depends on understanding thorough of these preventative actions and their ability to create lasting change within populations at risk of substance abuse. We explore the dynamic context of prevention advocacy, highlighting its role as a driver of change. This study investigates how evidence-based strategies and influential messaging can connect with different audiences, thereby creating an environment that promotes sustainable health behaviors and choices.

Methodology

The review used two basic models of addiction prevention to explain the approach for creating persuasive messages for a lasting positive change. The first model, by Leavell and Clark⁴, outlines three connected strategies of prevention: Primary Prevention,

which fosters health and specific protection; Secondary Prevention, which stresses early detection and prompt intervention; and Tertiary Prevention, which concentrates on rehabilitation and relapse prevention. The second model, based on the IOM (Institute of Medicine) Model⁵, shows a sequential series of actions: Promotion, which aims to build a resilient environment; Prevention, which includes Universal, Selective, and Indicated efforts; Treatment, which involves case identification and standardized treatment protocols; and Recovery, which supports abstinence and rehabilitation. In particular, the essay reviewed the two prevention models and applied their principles to the setting of advocacy. The study also assessed how these models helped to create effective communication strategies and influence policy and public perception. The goal is to establish a systematic framework addiction prevention advocacy that is based on evidence-based practices, ensuring that

the message not only reaches but also motivates actionable change.

Results

Leavell and Clark's and the IOM's models provided a clear framework for investigating effective strategies in addiction prevention advocacy. The framework for these strategies as shown in Table 1, go beyond just raising awareness, but are also crucial for bringing about concrete public policy changes. The nature of practices to assist in understanding the success of advocacy in addiction prevention approaches that are based on prevention models are presented in Table 2. Table 3 shows how interventions for advocacy should vary across different stages of life. This was based on the new approaches introduced UNODC's **CHAMPS** bv (CHildren AMplified Prevention Services) initiative, which covers and compares with the 2003 Ogel's work. The three tables illustrate the methods of the advocacy practices and the following review of related

literature showed that the strategies had led to a notable reduction in substance use rates and associated issues, confirming the notion that prevention is preferable to treatment.

Discussion

Advocacy is a crucial factor that helps to reduce the harms and problems that addiction causes in society. The findings will be explored and discussed according to the different types of advocacy that are relevant for preventing addiction.

The Imperative of Addiction Prevention Advocacy/Campaigns

Advocacy in addiction prevention manifests as a pivotal force that significantly diminishes the societal scourges birthed by addiction. Historically, concerted advocacy initiatives have been linked to substantial societal benefits, including a notable 30% reduction in drunk driving fatalities within a decade, a testament to the efficacy of these campaigns⁶. This elucidated how

Table 1: Addiction Prevention Framework According to the Models of Prevention

S/No	Types of Prevention	Description
1	Primary Prevention in	Aligning with Leavell and Clark's model, this section explored advocacy
	Advocacy	initiatives aimed at health promotion and specific protection to preclude the
		initiation of substance use.
2	Enhancing Secondary	This examined how advocacy can support early detection and timely
	Prevention through	intervention, crucial in the secondary prevention strategy to curtail the
	Advocacy	progression of substance use.
3	Tertiary Prevention and	Discussed the role of advocacy in supporting rehabilitation efforts and
	Advocacy for Recovery	preventing relapse as part of tertiary prevention.
4	Promotion through	Inspired by the IOM Model, and it discussed how advocacy efforts can
	Advocacy	contribute to creating resilient environments conducive to wellness.
5	Advocacy Across the	Addressed Universal, Selective, and Indicated prevention efforts within
	Prevention Spectrum	advocacy campaigns and how each targets different populations.
6	Advocacy in the	Looked at how advocacy aids in the identification of cases and support for
	Treatment Phase	standardized treatment protocols as part of the IOM Model's Treatment phase.
7	Advocacy's Role in	This covered how advocacy initiatives can support long-term abstinence and
	Sustaining Recovery	rehabilitation, aligning with the Recovery stage of the IOM Model.

Table 2: Broad Categories of Addiction Advocacy Prevention Practices

S/No	Practices Identified	Description
1	The Imperative of Addiction	Discussing how advocacy shapes policy and public
	Prevention Advocacy/Campaigns	consciousness, leading to reduced substance use and related
		harms.
2	Analysis of Addiction Prevention	An examination of the elements that contribute to the failure of
	Program Pitfalls	some prevention programs.
3	The Necessity of Employing	Underlining the importance of strategic approaches in advocacy
	Effective Strategies for Prevention	for optimal outcomes.
	Advocacy	
4	Blueprints for Successful Advocacy	Outlining the methodologies that bolster the efficacy of
		prevention advocacy campaigns.
5	Best Practices in Addiction	Detailing the recommended actions for advocates to enhance the
	Prevention Advocacy	impact of prevention messages.
6	Pitfalls to Avoid in Addiction	Highlighting common mistakes in advocacy strategies and their
	Prevention Advocacy	potential negative consequences.
7	Crafting the Message for Addiction	Guidelines on the tone, content, and delivery of prevention
	Prevention Campaigns	messages for maximum resonance.
8	Age-Specific Messaging in Addiction	Emphasizing the importance of tailoring prevention messages to
	Prevention Advocacy	the developmental stage of the target audience.
9	Future Directions in Addiction	Mapping the path forward for advocacy campaigns to innovate
	Prevention Advocacy	and adapt in the face of evolving challenges.

Table 3: Messaging for Different Age Groups in Addiction Prevention Advocacy

Age Range	CHAMPS Model Interventions	Ogel's Focus Areas
Pregnancy	Prenatal care targeting mother's health	Not Specified
0 - 6 years	Early child development, pre-school education	Education on healthy eating and decision- making
6 - 9 years	Emphasizing school involvement and life skills	Introduction to dangers of smoking, alcohol
9 - 11 years	Continuing life skills education	Strengthening refusal skills, family rules
11 - 14 years	Treatment for substance use, if needed	Conflict resolution, taking responsibility
14 - 19 years	Focus on future planning, societal responsibilities	Furthering future planning, societal impact of actions
21+ years	Not specified in CHAMPS	Discussion on substance effects, personal accountability

strategically crafted messages in prevention advocacy can precipitate such impactful outcomes. The success stories of advocacy in reducing alcohol-related mortality, makes an irrefutable case for the importance of sustained and strategic advocacy in the broader context of addiction prevention.

<u>Analysis of Addiction Prevention Program</u>

Pitfalls

The discourse of addiction prevention programs often portrays a binary outcome - success or failure. In this review, we face the hard truth that many of these programs fall short, and the causes are manifold. Mostly, these programs flounder when they neglect to foster self-awareness and autonomy,

especially among the youth who are in developmental stages that require empowerment rather than obedience to external goals⁷. Moreover, the attraction of drugs, often glorified by celebrity influence, is downplayed, while the charm of healthy role models is weak in comparison⁸. Educational methods that make the mistake of attributing addiction only to spiritual shortcomings or of confusing fleeting ecstasy with true happiness only confuse young minds instead of directing them⁹. However, the story is not completely bleak. When prevention programs are guided by effective strategies that connect with the target audience, success is palpable^{10,11}.

Such strategies are marked by their cultural competence, their awareness of the distinct environment in which individuals live, and their resilience against the superficial glamorization of drug use. It involves an honest recognition of the complexities that push individuals, particularly the youth, toward substance use and offers attractive alternatives that match their inherent values and notions of happiness. By addressing the misperception that substance use equals a feasible coping strategy and presenting relatable, appealing role models, these programs can reverse the paradigm from failure to success.

This appreciation of both the drawbacks that lead to the collapse of certain prevention programs and the strategic insights that support the effective ones is vital to effective advocacy-related addiction prevention practices. By learning from our mistakes and our achievements, addiction prevention advocacy can shift toward approaches that

truly resonate, maintain, and foster positive behavioral change.

The Necessity of Employing Effective Strategies for Prevention Advocacy

Effective strategies in prevention advocacy are very important. The key to successful advocacy is good communication, which means sending information on purpose. Advocacy is about using communication in a smart way to not only share knowledge but also to touch the emotions of the audience. Communication has two goals - knowledge sharing and emotional connection - and they support the effect of advocacy efforts. This is why using effective strategies in prevention advocacy is crucial, because these strategies make sure that the message not only gets to the right audience but also creates the wanted cognitive and emotional reactions^{12,13}.

To understand the role of communication in advocacy, we need to ask three main questions: why we communicate, what

happens because of our communication, and

how we communicate¹⁴. The first question is about sending knowledge and stirring emotions, showing the need to educate and relate to the audience on a deeper level. The second question is about the results of communication, focusing on the possible emotional and attitudinal changes that advocacy tries to make. The last question covers the whole approach to communication, combining knowledge sharing with emotional connection and attitudinal change to make the audience understand and agree with the message. This complex relationship of knowledge, emotion, and attitude explains the reason for advocating certain things and not others in addiction prevention campaigns. In other words, the subsection shows the need for addiction prevention advocacy to use effective communication strategies that not only inform but also motivate and activate. By carefully thinking about the

meaning of communication and its effect, advocates can create messages that are not only listened to but also felt and followed, leading to positive change in the area of addiction prevention.

Blueprints for Successful Advocacy

To communicate effectively and create lasting change in public perceptions of substance use, addiction prevention advocacy needs to follow some best practices^{15,16}. These are the recommended and discouraged approaches of addiction prevention advocacy that highlight the need for a nuanced and sensitive way of influencing social and individual attitudes and actions regarding substance use. By building strategies on empathy, factual information, and captivating storytelling, advocacy can facilitate meaningful change in addiction prevention and support a healthier, more informed society. The best and worst practices of addiction prevention advocacy emphasize an

important balance between educating and engaging without condescending or scaring the intended audience¹⁷. Effective communication strategies should aim to create a space for honest conversation, where information about substance use is integrated with wider life skills and personal growth rather than standalone warnings filled with fear or moral criticism.

Best Practices in Addiction Prevention Advocacy

To communicate information about addiction in a credible way, honesty, openness, and educational value are essential. Saying "I do not know" when unsure shows the honesty of the advocate and maintains the trust of the audience.

Making up facts or forcing personal opinions can damage the credibility of the message and push away the people we want to reach. The main purpose of these conversations should be to inform and change attitudes, especially about how

addiction relates to social norms, behaviors, and society in general.

A key part of this communication is creating a space for dialogue, where questions are welcome and common myths about addiction are challenged. Presenting substance use as a health issue puts addiction prevention in a positive social context, similar to preventive actions like cancer screenings, and makes these conversations more normal. Using realistic examples from real-life situations makes the message more relatable and shows the actual consequences of substance misuse. This method helps people see how addiction affects them personally, and makes the discussion more relevant to their lives. Having peers as messengers can greatly increase the impact of prevention messages. Peers, who share their stories of substance use and its effects, give powerful testimonies that connect on a personal level, especially with youths and adults who tend

to be doubtful of traditional prevention

messages. Also, breaking the illusion and glamour of substance use, especially among young people, requires emphasizing the lesstalked-about negative physical effects of drugs, going against the often glamorized image in media and by celebrities⁸. However, care must be taken not to spark interest in substance use among the young or to rely on a purely restrictive, prohibitive approach. Such strategies can backfire, possibly stigmatizing youth and hindering effective communication. The preference for indirect messaging over direct antisubstance narratives guides the conversation towards positive, engaging dialogue rather than causing resistance or rejection^{15,16}.

Pitfalls to Avoid in Addiction Prevention

Advocacy

In the realm of addiction prevention advocacy, the methodologies employed can profoundly influence the effectiveness of the message conveyed. Particularly when

engaging with youth, a demographic often at the crossroads of independence and vulnerability, the nuances of communication become even more critical¹⁸. It's imperative that advocates refrain from approaches that can inadvertently entrench the behaviors they aim to prevent. This discussion delves into the pitfalls that can undermine the efficacy of addiction prevention efforts, offering insights for constructing more impactful advocacy strategies.

A cardinal misstep in addiction prevention is resorting to lectures, guilt, or shame as tools of persuasion¹⁹. Such tactics not only alienate the youth but can also stigmatize substance use, paradoxically enhancing its appeal as a symbol of rebellion and adult autonomy. Furthermore, sensationalizing past experiences of drug use without highlighting the inherent risks can romanticize substance experimentation, leading youths to underestimate the potential for adverse outcomes. This can be

particularly damaging in cultures where independence is celebrated and risk-taking behaviors are normalized.

Equally counterproductive are scare tactics¹⁷, which, rather than deterring substance use, might incite defiance, especially among adolescents inclined to challenge authority. This resistance is compounded if the audience perceives the advocacy message as exaggerated or untruthful, resulting in a dismissal of the intended message. Additionally, vivid portrayals of drug use, whether in educational materials or media, risk not only glamorizing the act but also inadvertently providing a tutorial on substance misuse.

Crafting the Message for Addiction Prevention Campaigns

Addiction prevention campaigns serve as a pivotal tool in the ongoing effort to educate the public, particularly youth, about the risks associated with substance use. The core of effective messaging in these campaigns lies

in confronting prevalent misconceptions head-on, as illustrated by statements from various health and advocacy organizations. For instance, the Cambridge Prevention Coalition's "Reality Check" underscores the critical point that substances like alcohol and marijuana pose significant dangers to adolescent brains, which continue to develop into the mid-twenties. This fact challenges the common dismissive attitudes towards these substances, emphasizing the unique vulnerabilities of teen neurology.

Furthermore, the Massachusetts Department of Public Health's Bureau of Substance
Abuse Services²¹ provides a stark warning about the dangers of inhalants i.e. "inhalants are poisons and are dangerous like other poisons". Hence, this commonplace item, when used as drugs, inflict widespread harm on the body. Such messages are crucial in addiction prevention efforts, highlighting the immediate and pervasive risks of substance misuse. This approach of presenting

unvarnished truths seeks to recalibrate societal and individual perspectives on seemingly benign or recreational drug use.

Renowned figures have also contributed compelling analogies that resonate with broader audiences. Dr. Zakir Naik's comparison of alcoholism to a "legal disease sold in a bottle" and George Bernard Shaw's poignant depiction of a cigarette underscore the paradoxical normalization of substances that entail significant health risks. Similarly, the first author, Tajudeen Abiola, defines addiction as a "long-lasting abuse of the user's brain" succinctly captures the essence of substance dependency and its profound neurological impacts.

In synthesizing these perspectives for
"Driving Change Through Addiction
Prevention Advocacy: Strategies For Lasting
Impact And Effective Messaging," the essay
will explore how these messages, rooted in
stark reality and poignant metaphor, can
inform strategies that foster meaningful

dialogue, challenge prevailing norms, and ultimately cultivate a more informed and health-conscious public. The objective is to craft advocacy messages that not only inform but also resonate deeply, prompting individuals to reconsider their views on substance use and its societal acceptance.

Age-Specific Messaging in Addiction Prevention Advocacy (See Table 3)

The CHAMPS initiative, under the auspices of UNODC²², serves as a quintessential model for age-specific addiction prevention advocacy. The essence of crafting a strategic and effective approach to such advocacy lies in the meticulous consideration of the developmental journey of the target audience. Informed by Ogel K.'s work²³, the visual timeline within the CHAMPS model delineates a progression of educational focuses, meticulously tailored to the evolving stages of a child's life. This initiative stands as a testament to nurturing the growth of children in a manner that

safeguards them against the risks of

substance abuse, thereby bolstering their resilience from the very onset of their lives. CHAMPS is an adaptive and proactive system that supports children's changing cognitive and emotional needs from infancy to adolescence. It prevents addiction through a mix of services that cover every child's situation and risks. The Ogel's model, shows the educational focus areas that change with age. Both help children avoid substance abuse by building their resilience from the start, matching their methods to their development, integrating services and tailoring attention. Hence, advocacy-related addiction prevention interventions should work, at least on two levels: creating a national strategy for service integration and aligning those services with the developmental stages of children's growth. The UNODC Review of Prevention Systems (RPS)²⁴ tool serves as the linchpin for this comprehensive strategy, underpinning the

targeted prevention efforts with evidencebased practices.

In practice, this means laying a foundation of healthy lifestyle education from the earliest stages of life, reinforcing refusal skills and family roles in later childhood, and fostering personal responsibility and future planning in adolescence. The aim is to cultivate resilience against the allure of substance use by making informed decision-making and healthy living a part of an individual's identity from the start.

Future Directions in Addiction Prevention Advocacy

In the pursuit of designing impactful addiction prevention programs, it is imperative to hone in on specific problems while targeting modifiable risk factors.

Successful advocacy hinges on a comprehensive approach that is not only multifaceted but also meticulously tailored based on a thorough assessment of the target population. This entails a granular

understanding of the unique characteristics, needs, and interests of individuals, whether the intervention is universal, selective, or indicated.

Employing multiple intervention methods expands the reach and enhances the effectiveness of the program. These methods must engage the individual at various levels — from personal to societal — crafting messages that resonate on a peer-to-peer level, within family dynamics, across educational and institutional settings, and throughout the community. The integration of interventions across these various social strata is crucial for a holistic approach that captures the complexity of addiction.

To amplify the reach and ensure the messaging permeates effectively, leveraging multiple outlets is key. Traditional media continues to play a vital role, but in the digital age, social media platforms have emerged as powerful tools for advocacy.

They offer the opportunity to engage with

audiences in real-time, facilitating a dynamic and interactive form of communication that can adapt to the evolving landscape of public health challenges.

Therefore, as we move forward in the realm of addiction prevention advocacy, it is clear that data-driven and well-designed interventions, which embrace a wide array of communication channels and address the different layers of influence in an individual's life, are the backbone of effective programs^{22,24}. As advocates, it is our responsibility to ensure that these programs are not only evidence-based but also adaptive, responsive, and engaging, paving the way for meaningful change and lasting impact.

Study's Strengths and Weaknesses

Strengths

1. Evidence-Based Approach: This essay is anchored on the solid ground of evidence,

drawing from significant studies such as those by Degenhardt et al.¹ and Miller & Hendrie², which highlight the profound impact of addiction on global health and the economic efficiency of prevention programs. By utilizing well-established models of addiction prevention by Leavell and Clark⁴ and the IOM⁵, the essay offers a structured framework for advocacy that is both theoretically sound and practically applicable.

- 2. Comprehensive Methodology: The methodology harnesses the strengths of two principal prevention models, offering a multi-layered approach to advocacy. This not only enriches the discourse with varied perspectives but also caters to a broad spectrum of prevention strategies ranging from primary to tertiary prevention, including promotion, treatment, and recovery.
- 3. Adaptability and Inclusivity: A major strength lies in the adaptability and

strategies. The CHAMPS initiative and the alignment with Ogel's work provide a dynamic template for tailoring interventions across different life stages, ensuring that messages are developmentally appropriate and resonate with diverse audience segments.

Weaknesses

- 1. Limited Specificity in Certain Age
 Categories: While the CHAMPS model and
 Ogel's research offer comprehensive
 insights, there are areas, such as
 interventions specified for the age of
 majority (21+ years), where the details
 remain vague or unspecified in the
 CHAMPS model. This could pose
 challenges in crafting precise and targeted
 messages for this age group.
- 2. Theoretical Framework vs. Practical
 Application: While the theoretical
 underpinnings of the advocacy strategies are
 robust, translating these frameworks into

practical, actionable plans may encounter obstacles. The complexity inherent in the multi-faceted nature of addiction and its prevention might require more detailed guidance on operationalizing the strategies.

3. Evaluation and Adaptability: While the essay outlines future directions, including the need for ongoing evaluation and adaptation, it implicitly acknowledges a weakness in the need for continuous refinement of advocacy strategies. The rapidly changing landscape of addiction and public health may outpace the adaptability of the strategies proposed, necessitating constant vigilance and responsiveness to emerging trends and data.

Overall, the review presents a compelling case for integrating evidence-based models into addiction prevention advocacy. Its strengths lie in its solid theoretical foundation, comprehensive approach, and emphasis on adaptability and inclusiveness. However, challenges remain in ensuring the

specificity of interventions for all age groups, translating theoretical frameworks into practical applications, and maintaining the flexibility needed to respond to the dynamic nature of addiction prevention.

Conclusion

The battle against addiction is pivotal for global health, highlighting the importance of robust prevention over treatment, as evidenced by previous studies, which advocate for prevention as a cost-effective and essential strategy for health and societal well-being. Integrating evidence-based prevention models into advocacy, leveraging Leavell and Clark's and the IOM frameworks, facilitates effective policy influence, societal norm shifts, and individual behavior changes. This approach, exemplified by the CHAMPS initiative, showcases the value of age-specific interventions and the capacity for scalable efforts that promise lasting impacts. The dynamic challenges of addiction necessitate

a nuanced, scientifically grounded, yet adaptable approach to prevention advocacy. Future directions emphasize refining strategies based on the CHAMPS model and Ogel's research, with continuous evaluation and adaptation of practices to remain effective in the ever-evolving public health landscape, ensuring advocacy messages resonate and drive substantial change in addiction prevention.

References:

- 1. Degenhardt L, Whiteford HA, Ferrari AJ, Baxter AJ, Charlson FJ, Hall WD, et al. Global burden of disease attributable to illicit drug use and dependence: Findings from the Global Burden of Disease Study 2010. Lancet. 2013;382(9904):1564-74. doi:10.1016/S0140-6736(13)61530-5.
- 2. Miller TR, Hendrie D. Substance Abuse Prevention Dollars and Cents: A Cost-Benefit Analysis. DHHS Pub. No. (SMA) 07-4298. Rockville (MD): Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration; 2008.
- 3. World Health Organization. Strategies to reduce the harmful use of alcohol: Draft global strategy. 2010. Available from: https://www.who.int/substance_abuse/activities/fadab/msbgsruplan.pdf.
- 4. Leavell HR, Clark EG. Preventive Medicine for the Doctor in His Community: An Epidemiologic Approach. New York: McGraw-Hill; 1958.
- 5. Institute of Medicine (US) Committee on Prevention and Control of Risky Behaviors. Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research. Washington (DC): National Academies Press (US); 1994.

- 6. National Highway Traffic Safety Administration (NHTSA). Traffic Safety Facts: Drunk Driving. Washington (DC): U.S. Department of Transportation. [Undated]. Available from: https://www.nhtsa.gov/risky-driving/drunk-driving.
- 7. National Institute on Drug Abuse. Principles of Substance Abuse Prevention for Early Childhood. 2019. Available from: https://www.drugabuse.gov/publications/principles-substance-abuse-prevention-early-childhood.
- 8. Motyka MA, Al-Imam A. Representations of psychoactive drugs' use in mass culture and their impact on audiences. Int J Environ Res Public Health. 2021;18(11):6000.
- 9. Moghadam MP, Sari M, Balouchi A, Madarshahian F, Moghadam K. Effects of storytelling-based education in the prevention of drug abuse among adolescents in Iran based on a readiness to addiction index. J Clin Diagn Res. 2016;10(11):IC06-IC09.
- 10. National Institute on Drug Abuse (NIDA). Principles of Substance Abuse Prevention for Early Childhood: A Research-Based Guide. National Institutes of Health; 2016.
- 11. Griffin KW, Botvin GJ. Evidence-Based Interventions for Preventing Substance Use Disorders in Adolescents. Child Adolesc Psychiatr Clin N Am. 2010;19(3):505-26.
- 12. Rogers EM. Diffusion of Innovations. 5th ed. New York: Free Press; 2003.
- 13. Bandura A. Social Foundations of Thought and Action: A Social Cognitive Theory. Englewood Cliffs (NJ): Prentice-Hall; 1986.
- 14. Watzlawick P, Bavelas JB, Jackson DD. Pragmatics of Human Communication: A Study of Interactional Patterns, Pathologies, and Paradoxes. New York: Norton; 1967.
- 15. National Institute on Drug Abuse. Principles of Drug Addiction Treatment: A Research-Based Guide. Third Edition. NIH Publication No. 12–4180. [Available at:

https://www.drugabuse.gov/publications/principles-drug-addiction-treatment-research-based-guide-third-edition]; 2014.

16. Center for Substance Abuse Prevention. Substance Abuse Prevention: The Intersection of Science and Practice. [Available at: https://store.samhsa.gov/product/Substance-Abuse-Prevention-The-Intersection-of-Science-and-Practice/sma19-5064]; 2019.

- 17. Job RF Soames. Effective and ineffective use of fear in health promotion campaigns. Am J Public Health. 1988;78(2):163-67.
- 18. National Institute on Drug Abuse. Preventing Drug Use among Children and Adolescents: A Research-based Guide for Parents, Educators, and Community Leaders. Second Edition. NIH Publication No. 04-4212(A). [Available at: https://www.drugabuse.gov/publications/preventing-drug-use-among-children-adolescents]; 2003.
- 19. Sussman S, Ames SL. Drug Abuse: Concepts, Prevention, and Cessation. Cambridge: Cambridge University Press; 2008.
- 20. Cambridge Prevention Coalition. Reality Check: for parents and guardians to prevent underage drinking. [Available at: https://www.cambridgema.gov/DHSP/~/media/D7D3 978CF13D4CC9B2AD0E8D68D2E671.ashx].
- 21. Massachusetts Department of Public Health, Bureau of Substance Abuse Services. [Available at: https://www.mass.gov/info-details/inhalant-use].

- 22. United Nations Office on Drugs and Crime. CHildren Amplified Prevention Services: the CHAMPS initiative. Vienna: United Nations Office on Drugs and Crime; 2024.
- 23. Ogel K. Age-appropriate education. In: Prevention and Intervention in Addiction. A powerpoint presentation delivered at the First International Capacity Building Program. International Federation of Green Crescents; Istanbul, Turkiye; 2016.
- 24. UNODC/WHO. International standards on drug use prevention, second updated edition. Vienna: United Nations Office on Drugs and Crime and the World Health Organization; 2018.

Funding: Nil

Conflicts of Interest: Nil