Zbornik Instituta za kriminološka i sociološka istraživanja, 2026, Vol. 45, Br. 3, str.

Pregledni rad
DOI: 10.47152/ziksi2026033
UDK:

An Education-Oriented Framework for Evidence-Based School-Based Substance Use Prevention

Branislava Popović-Ćitić,[1] Dragana Bogićević[2] & Lidija Bukvić[3]

University of Belgrade – Faculty of Special Education and Rehabilitation, Belgrade, Serbia

Introduction: School-based substance use prevention has shifted from information-oriented drug education towards evidence-based approaches grounded in prevention science. However, prevention science, implementation research, and international and European prevention frameworks address different but complementary aspects of prevention, and their implications are not always organised within a coherent perspective for educational practice. *Objective*: This paper aims to develop an education-oriented conceptual framework for evidence-based school-based substance use prevention by organising complementary principles from prevention science, implementation research, and international and European prevention frameworks according to the functions they serve within school-based prevention. *Methods*: The paper employs a conceptual-analytical approach centred on the International Standards on Drug Use Prevention, the European Drug Prevention Quality Standards, and the European Prevention Curriculum, supported by purposively selected theoretical and empirical literature relevant to school-based prevention. The sources were examined in terms of the functions they address within educational practice rather than through a systematic review of the evidence. *Results*: The proposed framework comprises five interconnected functional components: (1) evidence-informed decision-making, (2) developmental and contextual responsiveness, (3) comprehensive preventive action, (4) implementation quality, and (5) evaluation and continuous improvement. Professional capacity, leadership, resources, and intersectoral collaboration are

Correspondence: popovb@eunet.rs; University of Belgrade – Faculty of Special Education and Rehabilitation, Visokog Stevana 2, 11000 Belgrade, Serbia
[1] ORCID https://orcid.org/0000-0002-1076-5838
[2] ORCID https://orcid.org/0009-0007-0388-2968
[3] ORCID https://orcid.org/0000-0001-8161-1337

ONLINE FIRST

conceptualised as enabling conditions operating across these components, while schools are positioned within a wider prevention system. *Conclusion*: The framework does not propose new prevention principles but organises existing knowledge into an education-oriented perspective. It highlights that strengthening school-based substance use prevention requires coherence between evidence, identified needs, preventive action, implementation, and evaluation, supported by organisational and system-level conditions.

KEYWORDS: school-based substance use prevention / prevention science / evidence-based prevention / implementation quality / educational practice / prevention policy

Introduction

Preventing substance use among adolescents is an important public health, educational, and social policy concern worldwide. Despite substantial advances in understanding the developmental pathways leading to substance use, experimentation with psychoactive substances remains common during adolescence – a developmental period characterised by heightened vulnerability, increasing autonomy, and greater exposure to peer influence (National Research Council & Institute of Medicine, 2009; United Nations Office on Drugs and Crime [UNODC] & World Health Organization [WHO], 2018). Early initiation of substance use is associated with an increased risk of subsequent substance-related and other behavioural and health problems (Hawkins et al., 1992; National Research Council & Institute of Medicine, 2009; UNODC & WHO, 2018). Recent findings from the European School Survey Project on Alcohol and Other Drugs (ESPAD) 2024 survey indicate that alcohol remains the most commonly used psychoactive substance among European adolescents, while cannabis continues to be the most frequently used illicit drug. Although long-term trends indicate declines in the use of several established substances, the increasing use of electronic cigarettes highlights the continuing need for effective, evidence-based prevention during adolescence (ESPAD Group, 2025).

Schools occupy an important position within this preventive landscape because they provide sustained access to large numbers of young people during critical stages of development and offer an important setting for universal prevention before substance use behaviours become established (Faggiano et al., 2014; UNODC & WHO, 2018). Beyond providing knowledge about psychoactive substances, schools can strengthen social

ONLINE FIRST

and emotional competencies, foster supportive peer relationships, enhance school connectedness, and promote healthy behavioural norms, all of which are recognised as protective factors against substance use initiation and escalation (European Monitoring Centre for Drugs and Drug Addiction [EMCDDA], 2019; Hawkins et al., 1992; Nation et al., 2003; UNODC & WHO, 2018).

Despite this recognised potential, the effectiveness of school-based substance use prevention varies considerably. Although school-based interventions can contribute to preventing or reducing substance use, their effects vary across substances, intervention types, and outcomes, while implementation in routine school practice remains an additional challenge (Durlak & DuPre, 2008; Faggiano et al., 2014; Jenkins et al., 2026). In many educational settings, prevention continues to rely on one-off lectures, information dissemination, fear-based messaging, or isolated awareness campaigns – approaches for which evidence of sustained effectiveness remains limited (UNODC & WHO, 2018). A central challenge is therefore how prevention should be designed, implemented, and evaluated in accordance with contemporary scientific evidence.

These developments reflect the emergence of prevention science as an interdisciplinary framework linking knowledge about developmental processes, risk and protective factors, intervention development, implementation, and evaluation (Coie et al., 1993; Nation et al., 2003; National Research Council & Institute of Medicine, 2009). Within Europe, these principles have been further developed through the European Drug Prevention Quality Standards (Brotherhood & Sumnall, 2011) and the European Prevention Curriculum (EMCDDA, 2019), which promote evidence-informed prevention planning, implementation, and professional competence.

Although substantial evidence has accumulated regarding effective school-based substance use prevention, translating this evidence into educational practice remains challenging. Prevention science, implementation research, and international and European prevention frameworks provide complementary guidance, but they address different functions and levels of prevention, ranging from evidence-informed decision-making and intervention selection to implementation quality, evaluation, professional competence, and system-level conditions. Their implications for school-based prevention are therefore not always organised within a single education-oriented conceptual perspective.

ONLINE FIRST

Against this background, this paper examines how key principles from prevention science, implementation research, the International Standards on Drug Use Prevention (UNODC & WHO, 2018), the European Drug Prevention Quality Standards (Brotherhood & Sumnall, 2011), and the European Prevention Curriculum (EMCDDA, 2019) can be conceptually organised to inform evidence-based school-based substance use prevention. The aim is to develop an education-oriented conceptual framework that distinguishes the functions and levels represented across these complementary sources and clarifies their relationships within educational practice. The framework addresses school-based prevention broadly, encompassing student-focused, classroom, whole-school, and relevant environmental approaches, while positioning schools within a wider prevention system.

Conceptual Approach and Scope

This paper is a conceptual analysis of evidence-based school-based substance use prevention rather than a systematic, scoping, or integrative review. Its purpose is to organise complementary insights from prevention science and contemporary international and European prevention frameworks into an education-oriented conceptual perspective. The analysis centres on the International Standards on Drug Use Prevention (UNODC & WHO, 2018), the European Drug Prevention Quality Standards (EDPQS; Brotherhood & Sumnall, 2011), and the European Prevention Curriculum (EUPC; EMCDDA, 2019). These frameworks were selected because, taken together, they provide complementary guidance on the scientific foundations, quality standards, implementation, and professional competencies relevant to evidence-based substance use prevention.

The conceptual analysis was additionally informed by theoretical and empirical literature addressing the effectiveness of school-based substance use prevention, risk and protective factors, implementation and sustainability, fidelity and adaptation, evaluation, school climate and whole-school approaches, environmental prevention, and prevention systems. Sources were selected purposively according to their relevance to the conceptual question addressed in the paper, including established foundational literature and more recent research in areas necessary to clarify the scope and functioning of school-based prevention. The literature was therefore used to support conceptual development and was not

ONLINE FIRST

identified through a systematic search intended to provide an exhaustive review of all available evidence.

For the purposes of conceptual development, principles and recommendations from these complementary sources were considered in terms of the functions they serve within school-based prevention. Rather than treating them as equivalent dimensions, the proposed framework organises them into five interconnected functional components: evidence-informed decision-making; developmental and contextual responsiveness; comprehensive preventive action; implementation quality; and evaluation and continuous improvement. Professional capacity, leadership, resources, and intersectoral collaboration are conceptualised as enabling conditions that operate across these components. This functional organisation is intended to clarify how different forms of evidence and prevention guidance relate to one another within educational practice rather than to propose new principles of prevention.

The scope of the framework extends beyond classroom-based universal prevention. School-based substance use prevention is understood to include universal, selective, and indicated approaches, as well as student-focused interventions, classroom-based programmes, whole-school strategies, and relevant environmental prevention measures. Schools are also situated within a wider prevention system involving families and communities, health and social services, educational authorities, and other relevant actors. Accordingly, the framework is intended primarily as a conceptual resource for school practitioners, school leaders, and educational decision-makers concerned with the planning, implementation, evaluation, and continuous improvement of substance use prevention.

From Traditional Drug Education to Prevention Science

The evolution of school-based substance use prevention reflects a broader shift in the understanding of how behavioural and health-related problems can be prevented. For much of the twentieth century, prevention was primarily conceptualised as an educational activity aimed at increasing young people's knowledge about the harmful effects of alcohol, tobacco, and other psychoactive substances. This traditional approach assumed that providing factual information would enable adolescents to make rational decisions and consequently avoid substance use. Prevention therefore

ONLINE FIRST

commonly relied on classroom lectures, awareness campaigns, expert presentations, fear-based messages, or testimonials intended to discourage experimentation.

Although these approaches reflected genuine concern for adolescent health and well-being, their underlying assumption – that knowledge alone leads to behavioural change – proved insufficient when subjected to empirical evaluation. Systematic reviews and meta-analyses have shown that information-based and non-interactive approaches generally produce limited effects on substance use, while more interactive, psychosocial, and skills-based approaches tend to show more favourable outcomes (Faggiano et al., 2014; Foxcroft & Tsertsvadze, 2011; Tobler et al., 2000). These findings shifted attention towards the theoretical foundations, developmental appropriateness, implementation quality, and empirical support of prevention interventions.

At the same time, adolescent substance use came to be understood not as the direct consequence of inadequate knowledge but as a complex developmental phenomenon shaped by interactions among individual, family, peer, school, community, and broader environmental influences. From this ecological perspective, substance use reflects the cumulative influence of multiple risk and protective factors operating across developmental stages and contexts (Hawkins et al., 1992). Prevention therefore shifted from information provision towards addressing modifiable risk and protective factors and strengthening developmental resources associated with healthier outcomes (Catalano et al., 2004; Hawkins et al., 1992). Prevention science does not represent a single explanatory theory but connects knowledge about aetiology and developmental processes with intervention development, implementation, and evaluation (Coie et al., 1993; National Research Council & Institute of Medicine, 2009).

The influence of prevention science extends beyond substance use prevention. Within crime prevention, for example, Farrington (2003, 2007) emphasises the importance of knowledge about risk and protective factors, rigorous programme evaluation, and systematic implementation. These principles are also relevant to school-based substance use prevention, where preventive action addresses developmental processes and social environments associated with multiple behavioural and health outcomes.

For schools, this shift has two important implications. First, prevention cannot be reduced to transferring information about psychoactive

ONLINE FIRST

substances or developing individual competencies. Schools are developmental environments in which peer and adult relationships, school connectedness, organisational norms, participation, policies, and school climate may influence behavioural outcomes alongside individual-level factors (EMCDDA, 2019; UNODC & WHO, 2018). Second, the effectiveness of preventive interventions depends not only on their content but also on how they are selected, adapted, implemented, monitored, and evaluated (Durlak & DuPre, 2008; UNODC & WHO, 2018).

Taken together, these developments support viewing school-based substance use prevention as a broader evidence-informed process rather than a collection of discrete educational activities. The following framework organises these requirements according to their functions and relationships within educational practice.

A Functional Framework for School-Based Substance Use Prevention

The International Standards on Drug Use Prevention, EDPQS, and EUPC organise prevention knowledge in complementary ways, addressing developmental stages and levels of risk, the prevention cycle and quality standards, prevention settings and approaches, and professional competencies (Brotherhood & Nobre-Sandoval, 2025; Brotherhood & Sumnall, 2011; EMCDDA, 2019; UNODC & WHO, 2018).

Rather than introducing a new prevention model, the framework conceptually organises these complementary elements into five interconnected functional components: evidence-informed decision-making; developmental and contextual responsiveness; comprehensive preventive action; implementation quality; and evaluation and continuous improvement. These components represent different functions within school-based prevention rather than equivalent dimensions or sequential stages. Professional capacity, leadership, resources, and intersectoral collaboration operate as enabling conditions across the framework, while schools themselves are situated within a wider prevention system involving families, communities, health and social services, educational authorities, and other relevant actors.

ONLINE FIRST

Evidence-Informed Decision-Making

Scientific evidence provides the foundation for prevention planning, programme selection, and decision-making. Evidence indicates that preventive interventions differ substantially in their effectiveness, with contemporary research continuing to show variation in the effects of school-based substance use interventions (Jenkins et al., 2026). Some commonly used prevention activities produce little benefit or, in some circumstances, unintended negative effects (Coie et al., 1993; Nation et al., 2003; UNODC & WHO, 2018). Consequently, prevention decisions should be guided by rigorous evaluation studies, systematic reviews, and established knowledge regarding developmental pathways, risk and protective factors, mechanisms of behavioural change, and intervention effectiveness (Hawkins et al., 1992; National Research Council & Institute of Medicine, 2009). Scientific evidence, however, represents only one source of information required for prevention decision-making. Needs and resource assessments provide evidence about the characteristics of the student population, patterns of substance use and related risk and protective factors, existing preventive activities, and resources available within the school and its wider environment (Brotherhood & Sumnall, 2011; UNODC & WHO, 2018). Bringing these sources of information together allows schools to identify prevention priorities and select evidence-based interventions or strategies that correspond to identified needs rather than relying primarily on tradition, intuition, or programme availability.

Developmental and Contextual Responsiveness

Adolescent substance use develops through interactions between individual characteristics and broader ecological influences, including family, peer, school, and community environments. Prevention should therefore reflect students' developmental stage and the timing of substance use initiation while recognising that different groups require different forms and levels of support (Hawkins et al., 1992; Onrust et al., 2016; UNODC & WHO, 2018). This includes distinguishing between universal approaches intended for the general student population, selective approaches addressing groups with elevated risk, and indicated approaches for individuals showing risk characteristics or early substance-related behaviours without necessarily meeting criteria for a substance use disorder (EMCDDA, 2019; UNODC & WHO, 2018). This differentiation also has an equity dimension, as students and groups with greater levels of

ONLINE FIRST

risk or fewer supportive resources may require additional forms of support beyond universal provision. At the same time, interventions should be responsive to local school contexts. Contextual responsiveness requires identified needs and resources to be interpreted in relation to the specific school context, including its student population, organisational capacity, community resources, and patterns of substance use. Contextual responsiveness may also require adaptation of evidence-based interventions to local circumstances. However, adaptation should be purposeful and should take account of the intervention's core components and mechanisms of action (Wiltsey Stirman et al., 2019). The relationship between contextual adaptation and fidelity is therefore addressed further under implementation quality.

Comprehensive Preventive Action

School-based substance use prevention encompasses multiple forms and targets of preventive action rather than a single type of programme. Student-focused interventions remain an important component and may develop knowledge, social and emotional competencies, self-regulation, communication, decision-making, problem-solving, and skills for responding to social influence (Catalano et al., 2004; EMCDDA, 2019; Jenkins et al., 2026; UNODC & WHO, 2018). However, prevention should not be confined to changing individual students. Schools are also social and organisational environments in which relationships, norms, policies, participation, connectedness, and school climate may shape substance-related behaviour and broader developmental outcomes (Ponsford et al., 2024). Preventive action may therefore include classroom interventions, whole-school policies and practices, efforts to strengthen supportive relationships and school connectedness, and environmental measures that influence the conditions in which behavioural choices are made (Ponsford et al., 2024; UNODC & WHO, 2018). Environmental prevention complements individually oriented approaches by modifying aspects of the social, physical, or economic environment that shape behavioural opportunities and choices (EMCDDA, 2018, 2019). Connections with families and communities further extend prevention beyond the boundaries of the school itself. The appropriate combination of these approaches depends on identified needs, target populations, available evidence, and the role of the school within the wider prevention system.

ONLINE FIRST

Implementation Quality

The outcomes of evidence-based interventions depend in part on the quality of their implementation. Implementation research demonstrates that effectiveness depends not only on intervention content but also on the conditions and processes through which interventions are delivered (Durlak & DuPre, 2008; Fitzgerald et al., 2026; Fixsen et al., 2005). In school settings, implementation quality includes systematic planning, organisational readiness, stakeholder engagement, appropriate implementation support, and attention to fidelity, adaptation, and sustainability (Damschroder et al., 2022; Fitzgerald et al., 2026). Fidelity does not necessarily require rigid replication: adaptations may be needed to ensure developmental and contextual relevance, but they should be deliberate, documented, and considered in relation to the intervention's core components and mechanisms of action (Wiltsey Stirman et al., 2019). Implementation quality also depends on whether schools have sufficient organisational support and resources to maintain preventive activities beyond short-term projects or isolated initiatives (Aarons et al., 2011; Fitzgerald et al., 2026). Implementation quality is also supported by the enabling conditions identified across the framework, including professional capacity, leadership, resources, and intersectoral collaboration. These conditions contribute to organisational readiness, implementation support, and sustainability, while also supporting other prevention functions.

Evaluation and Continuous Improvement

Implementation and process monitoring provide information about whether preventive activities are being delivered as intended, whom they reach, and what implementation challenges arise, while outcome evaluation addresses whether intended changes are being achieved (Brotherhood & Sumnall, 2011; Proctor et al., 2011). Routine quality monitoring can additionally identify changes in implementation conditions and areas in which preventive practice may require adjustment. Evaluation therefore serves not only to assess effectiveness but also to generate information for continuous improvement. Findings from monitoring and evaluation can inform decisions about programme continuation, modification, additional implementation support, or changes in prevention priorities (Brotherhood & Sumnall, 2011; UNODC & WHO, 2018). In this sense, evaluation completes a feedback loop: information generated through implementation and outcomes becomes part of the evidence base for subsequent needs

ONLINE FIRST

assessment, decision-making, and prevention planning (UNODC & WHO, 2018). The framework should therefore be understood as dynamic and iterative rather than as a linear sequence of activities.

Taken together, the five components describe interconnected functions within school-based substance use prevention. Evidence-informed decision-making establishes what is known and what needs to be addressed; developmental and contextual responsiveness specifies for whom, when, and under what conditions prevention is required; comprehensive preventive action concerns the forms and targets of prevention; implementation quality addresses how preventive action is delivered and sustained; and evaluation and continuous improvement generate feedback for subsequent decisions and practice. Professional capacity, leadership, resources, and intersectoral collaboration operate across these functions as enabling conditions rather than as a separate component of prevention.

The framework also positions the school within a wider prevention system. Families and caregivers, community organisations, health and social services, educational authorities, and other relevant actors may contribute resources, expertise, referral pathways, complementary interventions, and environmental conditions that schools cannot provide or influence independently (EMCDDA, 2019; UNODC & WHO, 2018). School-based prevention should therefore not imply that responsibility for preventing adolescent substance use rests with schools alone. Rather, schools contribute through their educational and developmental role while coordinating preventive action with actors across the broader prevention system.

Implications for Educational Policy and School Practice

Strengthening school-based substance use prevention requires more than adopting individual evidence-based programmes. Educational systems also need organisational conditions that enable schools to select, implement, evaluate, and sustain appropriate preventive responses as part of everyday practice.

Accordingly, prevention should not be limited to isolated lectures, awareness campaigns, or extracurricular activities. Instead, it should be embedded within school development planning, student well-being policies, health promotion strategies, and quality assurance processes. Routine needs assessment, implementation monitoring, outcome

ONLINE FIRST

evaluation, and continuous quality improvement enable schools to integrate prevention into everyday educational practice while remaining responsive to students' developmental needs and emerging substance use trends (Brotherhood & Sumnall, 2011; UNODC & WHO, 2018). This also implies that decisions about preventive action should not begin with the availability of a particular programme or activity, but with an assessment of needs, available evidence, target populations, and the capacity of the school and its partners to implement and sustain an appropriate response.

Achieving this goal also requires sustained investment in professional capacity. Teachers, school counsellors, psychologists, pedagogues, school leaders, healthcare professionals, and other practitioners need competencies that extend beyond programme delivery to include evidence-informed decision-making, needs assessment, selection and contextualisation of preventive approaches, implementation, monitoring, and the use of evaluation findings. Continuous professional development is therefore an important component of educational policy supporting evidence-based prevention. In this respect, the European Prevention Curriculum provides a structured framework for strengthening prevention competencies across the education, health, and social sectors (Brotherhood & Nobre-Sandoval, 2025; EMCDDA, 2019).

Intersectoral collaboration is equally important for translating the framework into practice. Coordination between education, public health, social protection, mental health services, local communities, and civil society organisations can provide schools with specialised expertise, referral pathways, complementary support, and resources that they cannot provide independently (Brotherhood & Sumnall, 2011; UNODC & WHO, 2018).

At the policy level, the framework shifts attention from prescribing individual prevention activities towards establishing the conditions under which schools can make and sustain evidence-informed prevention decisions. Educational authorities can support this process by providing clear quality criteria, access to evidence-based prevention guidance, opportunities for professional development, mechanisms for intersectoral coordination, and realistic expectations for monitoring and evaluation. Importantly, schools should not be expected to independently generate all of the expertise, resources, or evaluation capacity required for high-quality prevention; these functions also depend on support from the wider prevention system.

ONLINE FIRST

The Serbian context provides a relevant illustration of these broader implications. Recent national ESPAD findings indicate high levels of alcohol use among first- and second-year secondary school students in Serbia, with 59.3% reporting alcohol use in the previous 30 days. Cannabis use was reported by 7.6% of students at least once in their lifetime, while 8.3% reported lifetime use of tranquillisers or sedatives without a doctor's prescription (Institute of Public Health of Serbia "Dr Milan Jovanović Batut", 2025). These findings underscore the continuing relevance of school-based substance use prevention but, by themselves, do not indicate which preventive responses are most appropriate or how they should be implemented. Within the proposed framework, such prevalence data constitute one source of evidence to be considered alongside risk and protective factors, available resources, school contexts, and evidence on effective preventive approaches.

Applied to Serbia, the framework therefore suggests priorities for strengthening prevention practice rather than providing an evaluation of the existing national prevention system. These include strengthening the use of evidence and needs assessment in prevention decisions, matching preventive approaches to developmental and contextual needs, combining student-focused interventions with appropriate whole-school and environmental strategies, supporting high-quality implementation, and using monitoring and evaluation for continuous improvement. The European Prevention Curriculum and the European Drug Prevention Quality Standards provide relevant resources for developing professional capacity and quality-oriented prevention practice, while effective implementation also depends on leadership, resources, and coordination between schools and the wider prevention system (Brotherhood & Sumnall, 2011; EMCDDA, 2019).

Conclusion

This paper has organised complementary insights from prevention science, implementation research, and major international and European prevention frameworks into an education-oriented conceptual framework for school-based substance use prevention. It distinguishes interconnected prevention functions, their enabling conditions, and the school's position within a wider prevention system.

ONLINE FIRST

Strengthening school-based prevention requires coherence between prevention needs and evidence, student characteristics and contexts, selected preventive actions, implementation quality, and monitoring and evaluation. From an educational perspective, this directs attention to the conditions that allow schools to integrate prevention into everyday functioning while remaining connected to families, communities, services, and educational authorities.

The framework is a conceptual synthesis rather than an empirically validated model, and it draws on purposively selected international and European prevention frameworks and relevant literature rather than a systematic review of the evidence. The sources were not subjected to formal quality appraisal, and their purposive selection may have introduced selection or confirmation bias; the proposed framework has also not been validated through stakeholder consultation or empirical testing. Although the functional organisation was developed to distinguish different roles within school-based prevention, some conceptual overlap between components may remain, and the framework does not specify operational indicators for their assessment. Its applicability across different educational and prevention systems therefore requires further examination. Future research could examine the conceptual clarity and operationalisation of the proposed components and enabling conditions, involve relevant educational and prevention stakeholders, and assess the framework's usefulness and applicability across different school and prevention-system contexts.

Literatura

Aarons, G. A., Hurlburt, M., & Horwitz, S. M. (2011). Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Administration and Policy in Mental Health and Mental Health Services Research, 38*(1), 4–23. https://doi.org/10.1007/s10488-010-0327-7

Brotherhood, A., & Nobre-Sandoval, L. de A. (2025). How is the European Prevention Curriculum (EUPC) implemented in practice and what lessons have we learnt so far? Introduction to the special issue. *Journal of Prevention, 46*(5), 667–675. https://doi.org/10.1007/s10935-025-00877-4

Brotherhood, A., & Sumnall, H. R. (2011). *European drug prevention quality standards: A manual for prevention professionals*. European Monitoring Centre for Drugs and Drug Addiction. https://doi.org/10.2810/48879

ONLINE FIRST

Catalano, R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *The Annals of the American Academy of Political and Social Science, 591*(1), 98–124. https://doi.org/10.1177/0002716203260102

Coie, J. D., Watt, N. F., West, S. G., Hawkins, J. D., Asarnow, J. R., Markman, H. J., Ramey, S. L., Shure, M. B., & Long, B. (1993). The science of prevention: A conceptual framework and some directions for a national research program. *American Psychologist, 48*(10), 1013–1022. https://doi.org/10.1037/0003-066X.48.10.1013

Damschroder, L. J., Reardon, C. M., Widerquist, M. A. O., & Lowery, J. (2022). The updated Consolidated Framework for Implementation Research based on user feedback. *Implementation Science, 17*(1), 75. https://doi.org/10.1186/s13012-022-01245-0

Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology, 41*(3–4), 327–350. https://doi.org/10.1007/s10464-008-9165-0

ESPAD Group. (2025). *ESPAD report 2024: Results from the European School Survey Project on Alcohol and Other Drugs*. Publications Office of the European Union. https://doi.org/10.2810/3300854

European Monitoring Centre for Drugs and Drug Addiction. (2018). *Environmental substance use prevention interventions in Europe*. Publications Office of the European Union. https://www.euda.europa.eu/publications/technical-reports/environmental-substance-use-prevention-interventions-in-europe_en

European Monitoring Centre for Drugs and Drug Addiction. (2019). *European Prevention Curriculum: A handbook for decision-makers, opinion-makers and policy-makers in science-based prevention of substance use*. Publications Office of the European Union. https://doi.org/10.2810/328460

Faggiano, F., Minozzi, S., Versino, E., & Buscemi, D. (2014). Universal school-based prevention for illicit drug use. *Cochrane Database of Systematic Reviews* (12), CD003020. https://doi.org/10.1002/14651858.CD003020.pub3

Farrington, D. P. (2003). Developmental and life-course criminology: Key theoretical and empirical issues – The 2002 Sutherland Award Address. *Criminology, 41*(2), 221–255. https://doi.org/10.1111/j.1745-9125.2003.tb00987.x

Farrington, D. P. (2007). Childhood risk factors and risk-focused prevention. In M. Maguire, R. Morgan, & R. Reiner (Eds.), *The Oxford handbook of criminology* (4th ed., pp. 602–640). Oxford University Press.

Fitzgerald, A., James, P., Hollywood, E., Comiskey, C., Reilly, R., Annunziata, K., & Kelly, P. (2026). A systematic review and narrative synthesis of barriers and facilitators for the implementation of school-based substance misuse prevention programmes. *Global Implementation Research and Applications*. https://doi.org/10.1007/s43477-026-00235-4

ONLINE FIRST

Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature* (FMHI Publication No. 231). University of South Florida, Louis de la Parte Florida Mental Health Institute, National Implementation Research Network. https://nirn.fpg.unc.edu/wp-content/uploads/NIRN-MonographFull-01-2005.pdf

Foxcroft, D. R., & Tsertsvadze, A. (2011). Universal school-based prevention programs for alcohol misuse in young people. *Cochrane Database of Systematic Reviews* (5), Article CD009113. https://doi.org/10.1002/14651858.CD009113

Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112*(1), 64–105. https://doi.org/10.1037/0033-2909.112.1.64

Institute of Public Health of Serbia "Dr Milan Jovanović Batut". (2025). *Upotreba alkohola i droga među učenicima prvih i drugih razreda srednjih škola u Srbiji – ključni rezultati ESPAD istraživanja za 2024. godinu* [Alcohol and drug use among first- and second-grade secondary school students in Serbia: Key findings of the ESPAD 2024 survey]. https://www.batut.org.rs/download/aktuelno/OsnovniRezultatiDM2024.pdf

Jenkins, E., Karamouzian, M., Sabioni, P., Molyneux, T., Goodyear, T., Gadermann, A., Gunn, H., Knight, R., Carwana, M., Fast, D., & Storey, K. (2026). School-based substance use interventions: An overview of systematic reviews and meta-analysis. *International Journal of Mental Health and Addiction*. https://doi.org/10.1007/s11469-025-01606-y

Nation, M., Crusto, C., Wandersman, A., Kumpfer, K. L., Seybolt, D., Morrissey-Kane, E., & Davino, K. (2003). What works in prevention: Principles of effective prevention programs. *American Psychologist, 58*(6–7), 449–456. https://doi.org/10.1037/0003-066X.58.6-7.449

National Research Council, & Institute of Medicine. (2009). *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities* (M. E. O'Connell, T. Boat, & K. E. Warner, Eds.). The National Academies Press. https://doi.org/10.17226/12480

Onrust, S. A., Otten, R., Lammers, J., & Smit, F. (2016). School-based programmes to reduce and prevent substance use in different age groups: What works for whom? Systematic review and meta-regression analysis. *Clinical Psychology Review, 44*, 45–59. https://doi.org/10.1016/j.cpr.2015.11.002

Ponsford, R., Melendez-Torres, G. J., Miners, A., Falconer, J., & Bonell, C. (2024). Whole-school interventions promoting student commitment to school to prevent substance use and violence, and improve educational attainment: A systematic review. *Public Health Research, 12*(2), 1–290. https://doi.org/10.3310/DWTR3299

ONLINE FIRST

Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., Griffey, R., & Hensley, M. (2011). Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health and Mental Health Services Research, 38*(2), 65–76. https://doi.org/10.1007/s10488-010-0319-7

Tobler, N. S., Roona, M. R., Ochshorn, P., Marshall, D. G., Streke, A. V., & Stackpole, K. M. (2000). School-based adolescent drug prevention programs: 1998 meta-analysis. *The Journal of Primary Prevention, 20*(4), 275–336. https://doi.org/10.1023/A:1021314704811

United Nations Office on Drugs and Crime, & World Health Organization. (2018). *International standards on drug use prevention* (2nd updated ed.). https://www.unodc.org/documents/prevention/UNODC-WHO_2018_prevention_standards_E.pdf

Wiltsey Stirman, S., Baumann, A. A., & Miller, C. J. (2019). The FRAME: An expanded framework for reporting adaptations and modifications to evidence-based interventions. *Implementation Science*, *14*(1), 58. https://doi.org/10.1186/s13012-019-0898-y

Obrazovno usmeren okvir za školsku prevenciju upotrebe psihoaktivnih supstanci zasnovanu na dokazima*

Branislava Popović-Ćitić, Dragana Bogićević & Lidija Bukvić

Univerzitet u Beogradu – Fakultet za specijalnu edukaciju i rehabilitaciju, Beograd, Srbija

Uvod: Školska prevencija upotrebe psihoaktivnih supstanci pomera se od tradicionalne edukacije o drogama ka pristupima zasnovanim na dokazima i prevencijskoj nauci. Međutim, prevencijska nauka, istraživanja implementacije i međunarodni i evropski okviri bave se različitim, ali komplementarnim aspektima prevencije, čije implikacije nisu uvek organizovane u koherentnu perspektivu namenjenu obrazovnoj praksi. *Cilj*: Cilj rada je razvijanje obrazovno usmerenog konceptualnog okvira za školsku prevenciju upotrebe psihoaktivnih supstanci zasnovanu na dokazima, organizovanjem komplementarnih principa prevencijske nauke, istraživanja implementacije i međunarodnih i evropskih okvira prema funkcijama koje imaju u školskoj prevenciji. *Metod*: U radu je primenjen konceptualno-analitički pristup usmeren na Međunarodne standarde za prevenciju upotrebe droga, Evropske standarde kvaliteta u prevenciji droga i Evropski kurikulum za prevenciju, uz korišćenje ciljano odabrane teorijske i empirijske literature relevantne za školsku prevenciju. Izvori su razmatrani prema funkcijama koje imaju u obrazovnoj praksi, a ne u okviru sistematskog pregleda

ONLINE FIRST

dokaza. *Rezultati*: Predloženi okvir obuhvata pet međusobno povezanih funkcionalnih komponenti: (1) donošenje odluka zasnovano na dokazima, (2) razvojnu i kontekstualnu prilagođenost, (3) sveobuhvatno preventivno delovanje, (4) kvalitet implementacije i (5) evaluaciju i kontinuirano unapređivanje. Profesionalni kapacitet, rukovođenje, resursi i međusektorska saradnja predstavljaju uslove koji omogućavaju funkcionisanje svih komponenti, dok se škola pozicionira kao deo šireg sistema prevencije. *Zaključak*: Predloženi okvir ne uvodi nove principe prevencije, već postojeća znanja organizuje u obrazovno usmerenu perspektivu. Okvir ukazuje da unapređivanje školske prevencije upotrebe psihoaktivnih supstanci zahteva usklađenost između dokaza, utvrđenih potreba, preventivnog delovanja, implementacije i evaluacije, uz organizacione i sistemske uslove.

KLJUČNE REČI: školska prevencija upotrebe psihoaktivnih supstanci / prevencijska nauka / prevencija zasnovana na dokazima / kvalitet implementacije / obrazovna praksa / politika prevencije

PRIMLJENO: 5. 7. 2026.
REVIDIRANO: 4. 10. 2026.
PRIHVAĆENO: 19. 10. 2026.

ONLINE FIRST

∗ Predloženo citiranje: Popović-Ćitić, B., Bogićević, D., & Bukvić, L. (2026). An Education-Oriented Framework For Evidence-Based School-Based Substance Use Prevention. *Zbornik Instituta za kriminološka i sociološka istraživanja, 45*(3), pp–pp. https://doi.org/10.47152/ziksi2026033

©2026 by authors

This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution 4.0 International License (CC BY 4.0).