

School-Based Prevention of Youth Mental Health and Substance Use Disorders: An Umbrella Review

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Introduction

Presently, the strength and quality of evidence for school-based mental health and substance use programs varies widely. There is a need to prioritize interventions that are evidence-based, while being feasible to implement and sustain at scale. Prevention cannot address the full complexities of substance use and mental health concerns but remains a critical component in fostering recovery-oriented systems of care.

Methods

A literature search was conducted in MEDLINE to identify structured reviews and meta-analyses of evidence-based and promising prevention programs.

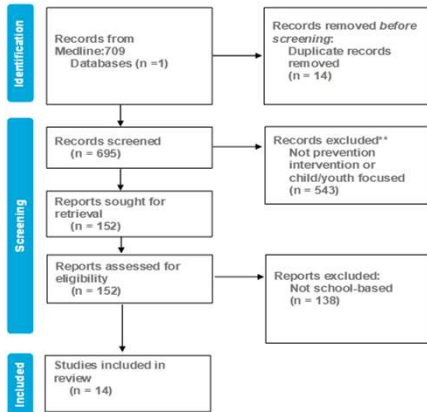


Figure 1: PRISMA Flow Diagram



Figure 2: Description of Methods

Evidence Summary of Prevention Programs

Following the completion of the screening process, primary international prevention intervention registries were screened for strong evidence-based programs (European Xchange prevention registry, California Evidence-Based Clearinghouse). The Evidence summary table provides a strategic synthesis of the most supported prevention programs.

Program Name	Age group	Tier	Mental Health & Well-Being	Substance Use	Conduct & Behavioral Regulation	Bullying & School safety	Social Emotional Learning, Life Skills, & Academic Dev.	Sustainability & Implementation Robustness
PAX Good Behavior Game (GBG)	Elementary (5-11)	Universal	Strong	Strong	Strong	Strong	Strong	Very long-term impacts (15 years); robust across countries but highly dosage-dependent.
The PATHS® Curriculum	Elementary (5-11)	Universal	Moderate	Low	Strong	Strong	Strong	Sustained effects up to 3 years; strong US evidence, mixed results in some European trials.
K/Na Antibullying Program	Elementary (5-11)	Universal / Indicated	Strong	Low	Strong	Strong	Moderate	Effects sustained 2 years; strong in Nordic/European contexts, null effects in UK trial.
Early Risers: Skills for Success	Elementary (5-11)	Selective	Strong	Moderate	Strong	Strong	Strong	Long-term impacts (up to 10 years); stronger in stable, lower-turnover settings.
Becoming Independent	Elementary (5-11)	Universal	Strong	Moderate	Strong	Moderate	Moderate	Short-term effects only; limited generalizability (tested in Germany).
Resourceful Adolescent (RAP-A)	Elementary (5-11)	Universal	Strong	Low	Strong	Strong	Strong	Effects sustained 18 months; positive in Australasia, null in UK trial.
School Health and Alcohol Harm Reduction Project (SHAHRP)	Elementary (5-11)	Universal	Low	Moderate	Low	Low	Moderate	Effects decay without boosters; durable knowledge gains, mixed long-term behavior change.
Coping Power Program (CPP)	Elementary, Early Adol (8-15)	Indicated / Selective	Strong	Strong	Strong	Strong	Strong	Sustained effects (3-5 years); robust across settings and countries when delivered with fidelity.
Olweus Bullying (OBPP)	Early Adol (11-15)	Universal / Selective	Moderate	Moderate	Strong	Strong	Strong	Effects strengthen over time (2-3 years); robust in Norway, variable across sites.
Unplugged	Early Adol (11-15)	Universal	Low	Low	Moderate	Moderate	Strong	Sustained effects to 24 months; consistent replication across multiple EU countries.
Botvin LifeSkills (LST)	Early Adol (11-15)	Universal	Moderate	Moderate	Moderate	Moderate	Strong	Long-term effects (up to 12 years) with boosters; strong US evidence, mixed EU results.
The life skills programme IPSY	Early Adol (11-15)	Universal	Low	Strong	Low	Low	Strong	Substance effects sustained 4.5 years; alcohol effects diminish without boosters.
Body Project	Late Adol (15-18)	Selective	Strong	Moderate	Low	Low	Strong	Sustained effects 3 years; robust across diverse international populations.
PreVenture®	Early Adol (11-15), Late Adol (12-18)	Indicated / Selective	Strong	Strong	Strong	Strong	Strong	Sustained reductions up to 7 years; strong cross-national replication (UK, NL, Canada).

Legend:
■ **Strong:** Reliable, consistent effect documented in multiple rigorous trials or longitudinal studies.
■ **Moderate:** Inconsistent findings, results vary by context or subgroup
■ **Low:** Outcomes assessed but consistently found to be non-significant
■ **Not relevant:** Outcome area not a primary focus of the program.

Results: Evidence Based Planning

- Universal, school-based prevention works at scale:** Universal programs produce clinically meaningful population-level benefits, reducing anxiety/depression They are cost-effective and reduce stigma.¹
- Whole-school anti-bullying programs reduce bullying:** A key risk factors for later mental health problems, substance use, violence, and suicidality.³
- Match "Active ingredients" to developmental age:** Prevention is effective when developmentally timed. Developing foundational skills like emotional regulation, interpersonal skills, and school connectedness in elementary and refusal skills, social competence, and correcting misperceptions about peer behaviour in adolescence.^{2,4}
- Match delivery to risk (tiered effectiveness):** Teacher-led programs are most effective as Tier 1 (universal) interventions embedded in classrooms. Tiers 2-3 require delivery by trained professionals for higher-risk students. Interactive delivery methods such as role-play show stronger outcomes than lecture-based approaches.¹
- Avoid ineffective/harmful approaches:** Peer-only antibullying programs, punitive discipline, and information-only drug education can be counter-productive.⁵
- Independent evaluations are critical before scaling programs.**⁴

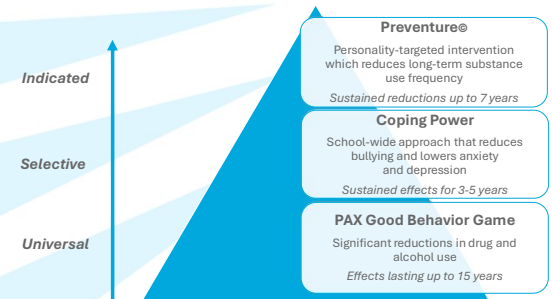


Figure 3: Description of Top-Rated Prevention Programs

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