

Research in Brief:
Universal School-based
'Resilience' Interventions and
Substance Use

Tobacco smoking, alcohol consumption, and illicit drug use are significant contributors to the global rates of morbidity and mortality. Substance use initiation typically occurs during adolescence. These behaviours can remain into adulthood, with adverse physical and psychological health outcomes. Schools provide an optimal setting for early intervention due to their wide reach and long-term access to youth and adolescents.

School-based interventions to reduce the prevalence of substance use through preventing or delaying substance use initiation have been recommended in the past. Yet, multiple systematic reviews have found these approaches to be ineffective. The World Health Organization has in turn suggested that programs promoting youth mental health may have higher potential to curb substance use.

Universal school-based 'resilience' interventions represent an option to reduce the prevalence of substance use through addressing the mental well-being of youth and adolescents. 'Resilience' is generally defined as "the process of, capacity for, or outcome of successful adaptation in the context of risk or adversity". What makes this school-based intervention 'universal' is the delivery to all students regardless of individual susceptibility to substance use.

A meta-analysis was conducted in 2017 to evaluate the effectiveness of universal school-based 'resilience' interventions on tobacco, alcohol, and illicit substance use among adolescents. Interventions that address both individual resilience protective factors (e.g., self-esteem, empathy, self-awareness), and environmental resilience protective factors (e.g., caring family, school and community relationships) were examined.

Why does this matter?

- ⇒ Tobacco, alcohol, and illicit substance use initiation typically occurs during adolescence.
- ⇒ Schools provide an optimal setting for interventions given their wide reach and long-term access to youth and adolescents.
- ⇒ School-based interventions that address mental well-being of youth and adolescents may have potential to curb the prevalence of substance use.
- ⇒ This meta-analysis provides evidence for the effectiveness of universal school-based 'resilience' interventions in reducing illicit substance use (but not tobacco or alcohol use).

The Knowledge Network for Student Well-Being is a project of the **Knowledge Network for Applied Educational Research** (www.knaer-recrae.ca)

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What is a meta-analysis?

A meta-analysis is a type of study that combines together the results of multiple relevant studies on a specific research question. The purpose of a meta-analysis is to draw a collective conclusion that provides stronger statistical evidence than any single study. This research method involves: 1) framing a specific research question; 2) running a comprehensive search in the literature; 3) screening the retrieved articles for relevance; 4) assessing the research quality of the relevant articles; 5) abstracting results from the relevant articles; and 6) combining the results of the relevant articles to draw a conclusion.



What did the researchers do?

The researchers undertook a meta-analysis to assess whether universal school-based 'resilience' interventions are effective in reducing substance use (tobacco, alcohol, and illicit substances). They searched for peer-reviewed articles published between January 1994 and August 2015 in six online databases, including Medline, CENTRAL, EMBASE, CINAHL, PsycINFO, and ERIC. The first 200 citations from Google Scholar, and all citations in the World Health Organization International Clinical Trials Registry Platform were also included in the comprehensive search. Furthermore, the

researchers hand-searched for articles in the Journal of Adolescent Health, the Journal of School Health, and Addiction journal.

All articles retrieved from the aforementioned sources were subsequently screened against pre-defined inclusion/exclusion criteria by two independent reviewers on the research team. Relevant studies were included in this meta-analysis if they were randomized control trials (RCTs) or cluster randomized controlled trials (C-RCTs) on students between the ages of 5-18 years. The studies must have also reported on tobacco use, alcohol consumption, or illicit substance use over any time period during adolescence (10-18 years).

What did they learn?

From 16,619 individual articles retrieved, 13 studies were deemed eligible to be included in the meta-analysis. Universal school-based 'resilience' interventions were found to yield no significant overall effectiveness in reducing tobacco or alcohol use. However, significant effectiveness was observed for illicit substances. The meta-analysis found that through implementing universal school-based 'resilience' interventions, students were 22% less likely to use illicit substances when compared to students who received no intervention. Further researched is needed to examine whether targeted 'resilience' interventions instead of universal 'resilience' interventions could provide alternative results for tobacco and alcohol use.

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