Using Implementation Science to Optimize School Mental Health During the Covid-19 Pandemic

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ABSTRACT

The Covid-19 pandemic has provoked a turbulent and uncertain time, especially for young people. Globally, schools have responded to the evolving pandemic using the best available insights, data, and practices. This response has included a renewed focus on the importance of school mental health as a protective and stabilizing influence. In Ontario, strategic investments in school mental health, inclusive of foundational *infrastructure*, scalable evidence-informed *interventions*, and embedded *implementation* supports, allowed school boards to mobilize quickly during Covid-19, and to act within the context of an overarching multi-tiered strategy. In this article, we describe foundational elements that contributed to rapid mobilization and response in school mental health service provision in Ontario schools during Covid-19.

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RÉSUMÉ

La pandémie de Covid-19 a entraîné nombre de bouleversements et d'incertitudes, en particulier chez les jeunes. En général, les écoles ont réagi à l'évolution de cette pandémie en utilisant les meilleures informations, données et pratiques disponibles. Cette réponse s'est accompagnée d'une vision renouvelée de l'importance de la santé mentale en milieu scolaire comme élément protecteur et stabilisateur. En Ontario, les investissements dans la santé mentale en milieu scolaire, les «infrastructures» inclusives et fondamentales, les «interventions» évolutives fondées sur les données probantes ainsi que les supports intégrés de «mise en œuvre» ont permis aux conseils de direction scolaires de se mobiliser rapidement durant la pandémie de COVID-19 et d'agir dans un contexte stratégique à la fois global et multiniveaux. Dans cet article, nous décrivons les éléments fondamentaux qui ont contribué à une mobilisation et une réponse rapides des services de santé mentale en milieu scolaire disponibles dans les écoles ontariennes pendant la pandémie de Covid-19.

Mots clés : santé mentale en milieu scolaire, science de la mise en œuvre, pandémie Covid-19, intermédiaire

Mental health problems in children and youth are a growing concern in Canada, and elsewhere. Studies suggest that as many as 12.7% of children and youth experience a mental disorder, causing significant distress and impairment (Barican et al., 2022). If left untreated, mental health problems are associated with negative outcomes throughout the lifespan (Clarke & Lovewell, 2021). Even prior to Covid-19, child and youth mental health problems represented a significant public health concern warranting a coordinated and urgent response (Vaillancourt et al., 2021).

Many studies are currently underway to assess the impact of the Covid-19 pandemic on child and youth mental health. Available cross-sectional studies report elevated feelings of anxiety, sadness, and loneliness, as would be expected with the backdrop of a global pandemic that has impacted daily life for young people (Cost et al., 2021; Creswell et al., 2021). Existing research also highlights disparities and disproportion-alities with respect to mental health outcomes, falling along the lines of the social determinants of health (Bernardini, 2021; Gallagher-Mackay et al., 2021).

The Promise of School Mental Health

While comprehensive and definitive data related to the magnitude of lasting impact on child and youth mental health are elusive, findings related to the impact of school closures punctuate the connection between mental wellness and in-person learning at school (Viner et al., 2022). There was a global awakening to the protective and promotive elements of school, when suddenly wellness-enabling aspects of classroom life were absent or inconsistently available due to pandemic closures. By their nature, in addition to their primary focus on learning, schools provide a steady and predictable rhythm, and offer a place for daily active living, participation in clubs and sports, access to nutrition, and opportunities for caring relationships to flourish.

As such, schools are uniquely positioned to promote student mental health and well-being (Kutash et al., 2006). Given that children and youth spend a substantial part of each day within the school setting,

these communities become a natural and important venue for mental health promotion and service delivery (Hoover & Bostic, 2021; Vaillancourt, 2021). Using a comprehensive and wholistic approach, mentally healthy schools and classrooms can offer inclusive learning spaces for all students and provide culturally relevant and engaging *mental health promotion* to inspire a student's sense of confidence, agency, and belonging (Clarke et al., 2021). In addition, when educators receive appropriate training in mental health literacy, they are well-positioned to assist in *early identification* and mobilization of supports for students needing additional mental health assistance (Barry et al., 2019; Fortier et al., 2017). Schools are often the first point of contact for mental health service provision (Georgiades et al., 2019), and provide an ideal setting for tailored *prevention and early intervention services* (Duong et al., 2021; Fazel et al., 2014). Strong paths from school-based mental health services, both to and from more *intensive and/or specialized mental health services* are also a critical part of the system of care (Duong et al., 2021; Fante-Coleman & Jackson-Best, 2020; Hoover & Bostic, 2021; Stroul, 2002).

There is a robust literature to suggest that evidence-informed school-based mental health promotion, prevention, and early interventions are associated with improved emotional wellness (Clarke et al., 2021; SAMHSA, 2021; Sanchez et al., 2017), enhanced academic performance (Durlak et al., 2011), and cost savings (Le et al., 2021). A recent systematic review of economic evaluations revealed that targeted prevention programs delivered at school (e.g., screening plus CBT-based psychological interventions) were "the most cost-effective interventions for prevention of mental disorders in children and adolescents" (Le et al., 2021, p. 1). Given the magnitude of child and youth mental health problems in Canada and globally, optimizing the opportunity for school mental health within the broader system of care is a critical priority.

The Vision for School Mental Health

Most jurisdictions that seek to optimize schools for effective and sustainable mental health promotion, early identification, prevention, and early intervention services, use a comprehensive and systematic approach to advancing school mental health that relies on investments in a multi-tiered system of support (MTSS; Stephan et al., 2015). Further, the school-based MTSS should be envisioned as part of a wider system of care (Stroul, 2002) that includes an all-of-government commitment to mental health care (Canadian Public Health Association, 2021). That is, while schools are well-positioned to offer upstream promotive and preventive supports, they rely on system partners to serve children and youth when they are struggling with mental health problems that require more intensive and specialized service delivery.

Unfortunately, this systematic upstream vision for school mental health is difficult to achieve, scale, and sustain. A review, scan, and survey conducted by the School-Based Mental Health and Substance Abuse Consortium (2013) revealed that there are key challenges that impede the development of this robust system of support in schools, including (1) organizational/structural barriers, (2) knowledge gaps, (3) program implementation and scalability factors, (4) inequities in service access, cultural relevance, and delivery, (5) problems with stakeholder engagement, and (6) challenges with cross-sectoral system collaboration. These challenges must be systematically addressed in an intentional and explicit manner to achieve the vision of school mental health. In this article, we describe how strategic investments in *infrastructure*, scalable evidence-informed *interventions*, and embedded *implementation* supports, have been used to advance school

mental health in Ontario over the past decade, and allowed school boards to mobilize quickly to support student mental health during the Covid-19 pandemic.

Harnessing Implementation Science

Implementation science offers a set of considerations and principles that assist in addressing known challenges and can effectively bridge the gap between evidence and practice in school mental health (Lucente et al., 2021; Lyon & Bruns, 2019). Active implementation frameworks and strategies provide necessary scaffolding to inspire uptake of evidence-based practice in scalable and sustainable ways (Fixsen et al., 2005).

School Mental Health Ontario (SMH-ON) is an intermediary organization, funded by the Ontario Ministry of Education, to help school boards across the province support student mental health and wellbeing. This team has leveraged implementation science to enhance the quality, consistency, scalability, and sustainability of school mental health practices in Ontario schools. SMH-ON has explicitly addressed each of the six challenge areas that limit uptake of evidence-informed practices in school mental health. Over almost a decade of work, SMH-ON co-created structures, processes, and supports designed to help school boards balance standardization and flexibility in mental health programming, and encourage quality, cultural relevance, and sustainability of practices. This work has been done in partnership with research teams, school and community-based mental health professionals, provincial education stakeholder groups, and relevant government ministries.

This investment in foundational infrastructure, stakeholder relationships, and context-ready interventions and implementation support bore fruit when systems needed to be quickly mobilized for the pandemic response. No one could have predicted the magnitude and impact of Covid-19 on schools and students globally. However, because implementation science foundations in place mimicked those recommended for emergency preparedness (e.g., use of standard operating procedures, centralized response team, training in crisis response, amplified communication), Ontario school boards were able to employ rapid implementation cycles to respond to emergent needs in an agile manner. The foundational elements that facilitated a streamlined Covid-19 response are detailed below.

FOUNDATIONAL INFRASTRUCTURE, INTERVENTIONS, AND IMPLEMENTATION

Building the Foundations for Effective and Sustainable School Mental Health

Ontario has 72 district school boards (60 English, 12 French) and four geographically remote school authorities, in addition to several specialized provincial and demonstration schools. Approximately 5,000 schools serve 2 million students and are staffed by more than 125,000 educators, under the leadership of roughly 7,400 school leaders. Working alongside school boards/authorities, the Ontario Ministry of Education, and provincial partners, SMH-ON has led a province-wide effort to create the conditions to support and sustain evidence-informed, locally contextualized mental health interventions across the MTSS, drawing on implementation science principles and strategies.

Implementation science offers many frameworks for understanding the effective uptake of evidencebased practices. SMH-ON was first guided by principles outlined by the National Implementation Research Network and their Active Implementation Framework (Metz et al., 2015). An understanding of implementation stages, drivers, teams, cycles, and feedback loops helped in developing a system of support for student mental health within a large and complex system, with many stakeholder groups and a large and diverse geography to serve. As the school mental health model in Ontario matured, other frameworks were integrated. At the pinnacle of the system, the broad implementation approach adopted by SMH-ON considers (1) *infrastructure* (system conditions with dedicated roles and structures within the host environment), (2) *intervention* (evidence-informed practices across the multi-tiered continuum of support), and (3) *implementation* (effective processes, engagement, training/coaching, feedback loops, monitoring, etc.).

Infrastructure

The Modified Interactive Systems Framework for Dissemination and Implementation (m-ISF; Bullock, 2019; Wandersman et al., 2012) offers a helpful model for understanding the infrastructure put in place to advance student mental health in Ontario (see Figure 1). Two initial investments were critical for shaping this foundational structure: (1) creation of an intermediary organization to provide provincial leadership and implementation support in school mental health, now known as SMH-ON, and (2) funding for every school board to create a mental health leadership team with responsibility for overseeing the development and implementation of a mental health and addictions strategy. In m-ISF terms, these structures form the

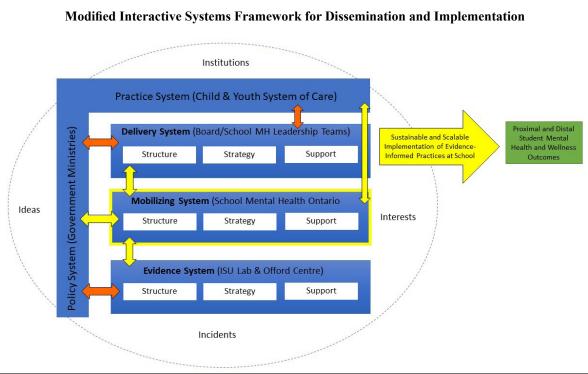


Figure 1

Note. Adapted from Bullock (2019).

Mobilizing System and the *Delivery System*, respectively. A third key structure was introduced in recent years, (3) the development of an Innovation and Scale Up Lab in collaboration with Western University, and a measurement and monitoring team in partnership with the Offord Centre for Child Studies at McMaster University (Offord Centre), which has become the m-ISF *Evidence System* for Ontario school mental health. This three-pronged implementation system bridges policy and practice, to bring evidence-informed, culturally responsive mental health promotion and prevention programming to students, in ways that are both scalable and sustainable.

Mobilizing System – School Mental Health Ontario

Structure. SMH-ON provides services within three main areas: (1) implementation coaching, (2) resource development and training portfolios (e.g., mental health promotion, student and family engagement, system collaboration, equity), and (3) communication and technical support. Implementation coaches are situated across the province's six geographical areas, with at least one clinician, one school board leader, and one French language team member serving each region.

SMH-ON is structured to facilitate co-creation and to provide multiple feedback loops, which are key tenets of effective implementation. In addition to insights surfaced in routine implementation coaching rounds, the organization receives inputs from provincial education stakeholders and from a student reference group that offers real-time guidance and input with respect to student needs and preferences related to school mental health. A 15-member advisory group comprising directors of education provides direction and feedback.

From an m-ISF perspective, serving as an intermediary, or mobilizing system, SMH-ON is situated in the space between policy, research, and practice. That is, *policy* directives and funding related to school mental health flow from the Ontario Ministry of Education and SMH-ON is tasked with supporting school boards to respond effectively and systematically to advance local strategy goals, practice decisions, and student outcomes. At the same time, *research* is synthesized, and evidence-informed, implementation-sensitive innovations are studied via the Innovation and Scale Up Lab to inform practice and policy guidance. A collaboration with the Offord Centre allows for arm's-length monitoring of school mental health strategy progress. And finally, through feedback loops and co-design and co-creation principles, *practice* insights and context shared via board mental health leadership teams inform both policy and research through SMH-ON. In this manner, the mobilizing system serves a central role in building coherence and quality across a large geography, balancing standardization in the use of evidence to inform practice with local flexibility to ensure that mental health programming meets the unique needs of students served in each community and school.

During Covid-19, this mobilizing structure served as the basis for rapid communication and iterative learning cycles, and as a strong bridge across the emerging research, practice observations, and policy decisions for school mental health. Individual and regional meetings with board mental health leadership teams increased in frequency, and information about student mental health was shared with, and from, research and policy partners. As supports were created, feedback loops allowed for rapid revisions as needs emerged. Common key messages were created to support boards with consistent communication about student mental health across the province using these establish structures.

Strategy. SMH-ON works with the Ministry of Education and provincial stakeholders to create a threeyear school mental health strategy and an annual action plan. The research-based strategic pillars identified in the provincial strategy inform board-level and school-level action planning in a cascading manner (i.e., boards use the same strategic pillars, nuanced for context). In this way, there is a coherence in direction for school mental health that can be observed at a provincial, school board, and school level. For example, a key pillar in the provincial strategy within the mental health promotion area is to enhance mental health know-ledge for educators and students. Because boards have also made this a priority, the resources and supports that SMH-ON creates in this area can be integrated seamlessly from province to classroom.

SMH-ON implementation coaches work with school boards as they develop and enact their own mental health and addictions strategy and action plan. In addition to helping board leadership teams to consider local needs, strengths, realities, and priorities to shape the strategy, coaches draw together research and resources to answer board queries, assist with interpretation of local data, make connections to other boards with similar complexities and challenges, and help with action steps towards identified strategic goals. Coaches help to advance alignment with the overall provincial school mental health strategy, striving for cohesion of efforts across the province. They also help leadership teams to articulate the board mental health and addictions strategy priorities within school improvement plans in ways that explicitly support community needs, strengths, and priorities.

Support. In usual times, SMH-ON provides support to Ontario school boards in five main ways. The team provides:

1. *provincial leadership in school mental health*, setting research-based directions, providing consultation on issues of concern, and monitoring strategy progress through an annual Board Mental Health and Addictions Scan and routine data captures;

2. *made-in-Ontario school and classroom resources* to help with mentally healthy learning environments, promotion and prevention programming, student and family engagement, equity and school mental health, and pathways to service;

3. *differentiated professional learning and training* for education and mental health professionals drawing on best practices in building mental health awareness, literacy, and expertise;

4. *implementation coaching support* that allows each school board to tailor strategic pillars and resources to their local context, to ensure that student needs are served, and

5. *a community of practice of mental health leadership teams* that allows for sharing of ideas, innovations, resources, and knowledge across Ontario school boards.

During the pandemic, these five areas of support continued, with particular focus placed on amplified implementation coaching and increased opportunities for cross-board sharing through the community of practice. Resources and training were tailored for identified pandemic needs. For example, SMH-ON responded to emerging Covid-19 data with professional learning for school mental health professionals on topics like supporting those disproportionately impacted by Covid-19, prevention and early intervention for eating problems and weight-related concerns, screening for problematic substance use, and suicide risk assessment and management.

Delivery System - Board Mental Health Leadership Teams

Structure. Every district school board has a designated mental health leader (MHL), funded by the Ministry of Education, who, along with a supervisory officer with responsibility for mental health (SO-MH), leads the development and implementation of the strategy and action plan, as noted above. Many boards also have managers of psychology and/or social work services (SMH managers) who oversee the work of front-line staff as they provide prevention and early intervention services. The multidisciplinary board mental health leadership team also includes members who represent the perspectives of school leaders, educators, families/caregivers, students, school clinicians, and community partners. The team meets regularly to oversee the implementation of the board mental health strategy and action plan and ensures that organizational conditions are in place to support effective practice. This includes, for example, demonstrating commitment to student mental health through alignment with board strategic priorities, and ensuring clear protocols for suicide prevention, community partnership, student engagement, and the selection of school mental health programming.

In addition to having a board-level mental health leadership team, each school is expected to have a team that carries responsibility for the school-level mental health and wellness strategy and action plan. The composition of the team varies, but the main function is to contextualize and enact the board strategy for the local school context. In this way, the school mental health strategy cascades from the province to the board, to the school level.

From a m-ISF perspective, as a delivery system, the board and school-level mental health leadership teams provide the main vehicles for transmitting mental health knowledge, resources, and support to the practice system with the board and community. In school mental health, the practice system consists of a range of professionals each playing a part that is in keeping with their role. For example, educators are part of the practice system, and are exceptionally well-positioned to support mental health promotion and everyday social-emotional skill development in the classroom. Board mental health leadership teams have a key role in equipping educators for this role, with high-quality mental health literacy and ongoing coaching support. Other school staff, such as guidance teachers and child and youth workers, also have a key role with wellness promotion, and are especially well-placed for early identification and support. The board delivery system assists with providing training and tools to support school staff for their unique roles.

Strategy. With an overarching provincial strategy, and ongoing coaching support, it has been possible to create consistency in strategy work across Ontario's school boards. Most boards include initiatives that support each of the strategic pillars outlined in the SMH-ON action plan, and nuance these for the students and communities served. In this way, the mental health leadership team can leverage the resources created centrally in support of each strategic pillar, serving as a delivery system for existing co-created materials, rather than taking time to develop these in isolation.

During Covid-19, by using this delivery system, a consistent set of resources could be disseminated to all schools in the province, in support of board mental health action plans and in response to needs identified. For example, in the summers of 2020 and 2021, SMH-ON developed a suite of resources to support a mentally healthy return to school. Board mental health leadership teams were given access to more than 75 resources they could draw on, tailoring language and details to map onto their board mental health and addictions strategy and action plan. This allowed for a consistent set of mental health literacy slides, videos,

and classroom resources to be shared with all schools in the province on the September professional development days, helping to ensure that all school staff received evidence-informed foundational information to support good welcoming for students during this challenging time when students had experienced prolonged absences from in-person learning. Implementation coaches worked with board mental health leadership teams to select and contextualize available resources throughout the pandemic.

Support. Mental health leadership teams mirror the support they receive from SMH-ON with schools and staff in their board. They provide leadership, resources, learning and training, coaching and consultation support, and relevant communities of practice. For example, in terms of leadership, they help in the selection of mental health promotion and prevention programming for the board, assist senior leaders with decision-making and issues management related to mental health, and offer guidance in times of mental health crisis.

In usual times, it can be difficult to highlight the importance of student mental health for learning at school. During the pandemic, student mental health received considerable attention in media and in schools, and MHLs were ready with available resources and supports. Many of these tools had been created and shared in the past but were refreshed in new ways to meet immediate demands. The appetite for classroom supports related to student wellness during the pandemic was immense, and board mental health leadership teams were mobilized and ready to offer needed support given years of foundational work.

Evidence System

Structure. From its inception, SMH-ON has been committed to ensuring that practices in Ontario schools are rooted in strong evidence. However, dedicated funding for research, program evaluation support, and rapid knowledge mobilization were identified as gap areas. In 2019, SMH-ON formed a partnership with the Centre for School Mental Health at Western University to formalize an emerging Innovation and Scale Up Lab (ISU Lab) designed to identify and scale promising evidence-informed approaches that can be more easily disseminated and sustained in Ontario schools. The Lab partners with researchers from institutions across North America to field test innovations that may be of value within Ontario schools.

The other critical function for the evidence system is ongoing measurement and monitoring. Through a collaboration with the Offord Centre, SMH-ON has been developing processes for monitoring the provincial SMH-ON strategy systematically since 2012. The Offord Centre has also developed approaches for embedding measurement-based care into school mental health practice. Offering independent analysis and support with reporting, the Offord Centre is a key part of the evidence system for school mental health in Ontario.

During Covid-19, having an established evidence system allowed SMH-ON to quickly access researchbased information to support policy and practice decisions. For example, the ISU Lab conducted several research reviews to support resource development (e.g., special education and mental health promotion, brief virtual interventions, peer helping) and the Offord Centre shared global syntheses of pandemic impact reports and responded to research-related requests for information from SMH-ON and the Ministry of Education.

Strategy. SMH-ON has worked with each evidence partner to establish a set of goals and actions to advance research and evaluation in school mental health in Ontario. While the primary focus to date is on using evidence to inform the mobilizing role played by SMH-ON, the more distal goal is to create a suite of supports and measurement tools that can be useful at the board and school level. Together, the ISU Lab, Offord Centre, and SMH-ON are working towards a wider strategy for research-informed school mental

health in Ontario. The need for enhanced data systems to support decision-making and to monitor progress in child and youth mental health has been magnified during Covid-19, and this remains an area for future work.

Support. The evidence system is an incubator for interventions, a centre for knowledge mobilization, and a measurement hub offering ways to monitor ongoing progress at a strategy, board, program/protocol, and school level. Simply put, it helps SMH-ON to *use*, *do*, and *share* research. For instance, the ISU Lab conducts research reviews on topics of interest to help school mental health stakeholders to *use* research well and provides research support to assist SMH-ON to *do* feasibility and scale up research that can lead to actionable interventions. Similarly, the Offord Centre provides measurement tools and guidance that allow SMH-ON to *do* impact monitoring at a provincial, board, and program level. Together, the ISU Lab, Offord Centre and all the partner research teams assist with publication of findings through academic and non-academic outlets to *share* and contribute to implementation and scale-up in school mental health.

During Covid-19, having regular access to university-based research teams allowed for quick access to emerging research related to child and youth mental health that could inform practice guidance. For example, the Offord Centre routinely reviewed and summarized the emerging pandemic impact literature so that SMH-ON could provide balanced messaging and responsive supports based on the best available studies. In a like manner, the ISU Lab assisted in feasibility testing *brief digital interventions* brought forward to address mild mental health problems that were emerging due to pandemic stressors. Early problems with intervention uptake were examined, leading to rapid revisions in content and process aimed at reaching more students with this brief problem-focused, asset-based intervention (Cwinn et al., 2022).

Infrastructure Summary

Taken together and drawing on the m-ISF framework as an organizing tool, the infrastructure that has been built for school mental health implementation in Ontario relies on having a robust mobilizing system (SMH-ON) that is informed by the evidence system (ISU Lab and Offord Centre) and provides support to the practice system (educators and school mental health professionals) through the delivery system (mental health leadership teams). Overall strategies and supports are co-created by a wide range of education stakeholders, and the policy and practice systems influence directions through multiple feedback loops. Having this infrastructure in place during Covid-19 allowed for a swift and systematic cascade of evidence-informed promotion and prevention resources and supports to school boards and schools across the province.

Intervention

SMH-ON strives to enhance quality and consistency in school mental health programming through the consistent use of evidence-informed practices across the province. Initially, this meant assisting boards towards empirically supported approaches, most typically in the form of manualized programs. These stepby-step programs grouped key principles known to be effective into packages of materials designed to help students with interpersonal skills (e.g., stress management, goal setting) and intrapersonal growth (e.g., listening, empathy; Carta et al., 2015; Kuosmanen et al., 2019). For students with greater needs, early intervention programs offering a higher dose of intervention for anxiety (e.g., exposure techniques) and mood management (e.g., behavioral activation) were recommended (Chorpita et al., 2013). Used with fidelity, these programs showed robust social emotional outcomes for students (McLennan et al., 2004; National Research Council and Institute of Medicine, 2009).

Unfortunately, in the busy pace and context of schools, the promise of these manualized interventions has been difficult to attain, with challenges in scalability and sustainability (de Leeuw et al., 2020; Eiraldi et al., 2015). A disconnect between the requirements of some manualized programs (e.g., time-intensive training, scripted prompts and materials delivered in sequence), and the reality of classroom life was noted (Gresham, 2016). In response to such challenges, many purveyors of manualized programs have made links to curriculum and offered more flexible implementation guidelines (Crooks et al., 2018), recognizing that high-quality programs will only reach students if educators are willing to implement them with fidelity. Further, there is increasing recognition that mental health interventions must be delivered in a culturally responsive and identity-affirming manner (Mental Health Commission of Canada, 2016). Because many school mental health interventions have been developed and tested from a western world view, it is critically important to acknowledge limitations and risks associated with programming that cannot be easily nuanced for the local context.

Given these experiences, the Ontario school mental health approach recognizes the power of proven manualized programs but is interested in careful selection to ensure that interventions are not only evidenceinformed, but also implementation-sensitive (Crooks, Dunlop et al., 2022), culturally responsive, and identity-affirming. Further, to maximize the potential for scalability and sustained uptake, and culturally responsive delivery, SMH-ON has been exploring ways to best integrate high-yield interventions into the daily fabric of school life.

One avenue to encourage access has been a *core elements* or *kernels* approach to intervention (Chorpita et al., 2013; Harmon et al., 2021; Jones et al., 2017). In this approach, researchers dismantle programs to identify active ingredients known to produce desired outcomes for children and youth. In this way, practitioners can use and adapt the best of these programs to meet the needs, strengths, and identities of students they support. Core elements of manualized programs can be woven into everyday classroom life through repeated small exposure to skills and principles. SMH-ON has created several brief classroom-ready materials that support this in daily practice (Peddigrew et al., 2022). While everyday mental health strategies like these may have a smaller dose than proven manualized programs, preliminary data suggests that educators using this approach reported greater knowledge and comfort with social emotional skill development, increased the number of students using these skills, and increased perceptions of positive classroom climate (Peddigrew et al., 2022).

Drawing from this approach, during the pandemic, SMH-ON co-created several virtual field trips, alongside partners at Ontario Physical and Health Education Association, to reinforce student coping skills. Through these lesson plans and video clips, educators can introduce and practice social emotional skills for helping students to manage feelings of stress, such as calm breathing techniques, progressive muscle relaxation, distraction, and finding gratitude. The lessons are brief, and virtually "plug and play," requiring very little preparation or support for classroom use. During Covid-19, educators accessed the virtual field trips and related resources routinely (e.g., over 50,000 downloads of the breathing strategies lesson plans in the first 6 months of release), and feedback from regional meetings with mental health leadership teams consistently highlighted positive reports from educators related to ease of use and helpfulness for students.

In addition, SMH-ON has partnered with several global leaders to develop and test prevention and early intervention protocols that could be scaled and sustained at low cost within the school context. For example, SMH-ON and the SMART Center at the University of Washington introduced the Brief Intervention for School Clinicians (BRISC), to Ontario school boards. BRISC is a brief problem-solving intervention rooted in cognitive behavioural therapy (CBT) and motivational interviewing techniques (Lyon et al., 2015), that has been field-tested and scaled through an Ontario training model to more than 1,200 school mental health professionals and their clinical supervisors over the past five years. This flexible protocol uses strong evidence-based techniques within a relational approach that is driven by measurement-based care. In contrast to more scripted manualized approaches, BRISC allows for fluid sampling of evidence-based techniques based on one student-identified problem area with an initial contract of four sessions to start. After these sessions, the case is closed if sufficient progress has been made, or BRISC may be extended for another four sessions, or an external referral is made if the student requires more intensive support. Trials have shown good acceptability, feasibility, and efficacy for BRISC with significant reductions in anxiety and progress out of the clinical range of disorder for BRISC during usual treatment (Bruns et al., 2019). Furthermore, the implementation supports offered by SMH-ON have supported sustainability over the past five years (Crooks, Fortier et al., 2022). Despite competing pressures during Covid-19, more than 700 clinicians chose to engage in BRISC training between March 2020 and December 2021, and 84% of boards indicated that they used BRISC during the pandemic (with 43% indicating that they used this protocol frequently during this time). The flexibility of this evidence-based protocol has helped with uptake during this challenging time.

Intervention Summary

While it is critical to use research to inform mental health promotion and prevention interventions, more flexible programming that is co-selected/co-created/adapted to best reflect the needs of students and communities served has become a more fulsome approach to school mental health intervention. Because this is a relatively young field of study, SMH-ON has begun to explore possible ways to ready interventions for the field to encourage uptake in Ontario schools. There is much more work to be done in this area, with a critical focus on including diverse voices of students and communities in programming selections, development, and delivery as this work evolves. Working alongside the ISU Lab, SMH-ON hopes to deepen study of evidence-informed, implementation-sensitive protocols, with a view to collating lessons in scalability and sustainability within the Ontario context, potentially working alongside other jurisdictions interested in expanding work in this area.

Implementation

The uptake and sustainability of evidence-based practices in school mental health requires more than the selection and promotion of high-quality, implementation-sensitive, culturally responsive programming (Clarke et al., 2021; Gaias et al., 2021). For a student to benefit from an intervention, they need to receive it as intended, in identity-affirming and strength-promoting ways (Fixsen et al., 2005). For these conditions to be possible, good implementation practices and supports are required.

Moreover, host environments (school and classrooms) need to be implementation-ready, with mentally healthy settings that are safe, inclusive, and welcoming for all. Systematic and intentional work is needed

to not only ensure that organizational conditions for effective mental health programming are in place (e.g., senior leader commitment, board/school strategy and action plan, monitoring systems), but also to ensure that settings are guided by an anti-racist, anti-oppressive stance. Part of this includes reflective learning for educators and clinicians to assist in identifying system and personal biases that interfere with mental health service delivery, and more broadly with meaningful inclusion and equitable outcomes for all. When mental health programming is introduced in alignment with learning and equity goals and initiatives, the whole system works together in support of students.

This means ensuring sufficient investment of time and resources to bring appropriate interventions to scale over time, with adequate culturally responsive training, materials, and ongoing coaching support. An implementation focus requires attention to the program elements, sustained delivery support, and ongoing work to build a receptive and identity-affirming strength-based host environment (May et al., 2016).

Implementation Strategies that Work

Recognizing the complexity of real-world uptake of evidence-informed practices, implementation science has moved beyond a comparison of frameworks and lists of enablers/barriers to the development of taxonomies articulating strategies most likely to inspire intended practice change (Lyon et al., 2019). Most promising amongst these efforts is the *Expert Recommendations for Implementing Change* (ERIC) project from the health sector that organized 73 implementation strategies into nine categories, with consideration to perceived feasibility and importance as ranked by health stakeholders (Waltz et al., 2015). Recently, Cook and colleagues (Cook et al., 2019; Gaias et al., 2021) reviewed the ERIC taxonomy for potential use in schools, resulting in a compilation of 75 strategies called the *School Implementation Strategies, Translating ERIC Resources (SISTER) project*.

The nine categories in the school-focused SISTER list are (1) use evaluative and iterative strategies, (2) provide interactive assistance, (3) adapt and tailor to context, (4) develop stakeholder relationships, (5) train and educate stakeholders, (6) support educators/clinicians, (7) engage consumers, (8) include financial strategies, and (9) change infrastructure. Although this listing has been published only recently, many of the strategies have been foundational to the school mental health model rolling out in Ontario since 2011–2012.

Implementation Summary

SMH-ON has devoted considerable attention to effective implementation processes and supports since its inception. Strategies within these nine categories have been routinely used to build the foundations for effective uptake of evidence-informed, culturally responsive mental health promotion, prevention, and early intervention strategies within Ontario's 72 school districts. A case study detailing the implementation and support of a school-based intervention shows how these strategies have supported scale up and sustainability (Crooks, Fortier et al., 2022).

CONCLUSION

Building and maintaining a comprehensive and sustainable school mental health service delivery system across Ontario has been a priority for many years. Rather than investing in a patchwork of programs and approaches, a systematic and coordinated approach, grounded in evidence-informed practice and implementation science has been rolling out in Ontario schools for almost a decade. When the pandemic struck, because of the existence of foundational infrastructure, interventions, and implementation support, Ontario school boards were able to mobilize quickly to provide needed mental health promotion, prevention, and early intervention supports. School boards drew on their local strategies and resources to provide wellness programming and early intervention supports. SMH-ON leveraged implementation strategies like resource co-creation, partnership, coaching, and feedback loops to provide responsive supports as a provincial mobilizing system, and school board mental health leadership teams assisted in getting resources swiftly to the classroom by enacting their role as a delivery system. Close links with the policy and practice systems allowed for rapid decision-making and responsive investments in needed supports. Other jurisdictions who are considering the potential of school mental health with new emphasis because of the pandemic may benefit from some of the strategic approaches and lessons learned in this system-wide provincial example.

REFERENCES

- Barican, J. L., Yung, D., Schwartz, C., Zheng, Y., Georgiades, K., & Waddell, C. (2022). Prevalence of childhood mental disorders in high-income countries: a systematic review and meta-analysis to inform policymaking. *Evidence*based Mental Health, 25(1), 36–44. <u>https://doi.org/10.1136/ebmental-2021-300277</u>
- Barry, M. M., Clarke, A. M., Petersen, I., & Jenkins, R. (2019). Implementing mental health promotion. Springer Nature. <u>ISBN: 978-3-030-23455-3</u>
- Bernardini, F., Attademo, L., Rotter, M., & Compton, M. T. (2021). Social determinants of mental health as mediators and moderators of the mental health impacts of the Covid-19 pandemic. *Psychiatric Services*, 72(5), 598–601. <u>https://doi.org/10.1176/appi.ps.202000393</u>
- Bruns, E., McCauley, M., Ludwig, K., Pullman M., Davis, C., Lee, K., Holm-Hansen, C., Sander, M., & Hoover, S. (2019). A brief intervention strategy for school mental health clinicians (BRISC): Findings from a multi-site efficacy study [Conference presentation]. Advancing School Mental Health Conference, Austin, TX, USA. <u>https://www.schoolmentalhealth.org/media/SOM/Microsites/NCSMH/Documents/Archives/ASMH-2019/Presentations-2019/ CS-4.01.-A-Brief-Intervention-Strategy-for-School-Mental-Health-Clinicians.pdf</u>
- Bullock, H. L. (2019). How do systems achieve their goals? The role of implementation in mental health systems improvement [Doctoral dissertation, McMaster University] MacSphere <u>http://hdl.handle.net/11375/24820</u>
- Canadian Public Health Association. (2021). A public health approach to population mental wellness. Position Statement, Ottawa, ON.<u>https://www.cpha.ca/sites/default/files/uploads/policy/positionstatements/2021-03-population-mental-wellness-e.pdf</u>
- Carta, M. G., Fiandra, T. D., Rampazzo, L., Contu, P., & Preti, A. (2015). An overview of international literature on school interventions to promote mental health and well-being in children and adolescents. *Clinical Practice and Epidemiology in Mental Health*, 11(Suppl 1 M1), 16–20. <u>https://doi.org/10.2174/1745017901511010016</u>
- Chorpita, B. F., Weisz, J. R., Daleiden, E. L., Schoenwald, S. K., Palinkas, L. A., Miranda, J., Higa-McMillan, C. K., Nakamura, B. J., Austin, A. A., Borntrager, C. F., Ward, A., Wells, K. C., Gibbons, R. D., & Research Network on Youth Mental Health. (2013). Long-term outcomes for the Child STEPs randomized effectiveness trial: A comparison of modular and standard treatment designs with usual care. *Journal of Consulting and Clinical Psychology*, 81(6), 999–1009. <u>https://doi.org/10.1037/a0034200</u>
- Clarke, A., & Lovewell, K. (2021). Adolescent mental health evidence brief 2: The relationship between emotional and behavioural problems in adolescence and adult outcomes. Early Intervention Foundation. <u>https://www.eif.org.uk/report/adolescent-mental-health-evidence-brief2-emotional-and-behavioural-problems-in-adolescence-and-adult-outcomes</u>
- Clarke, A., Sorgenfrei, M., Mulcahy, J., Davie, P., Friedrich, C. & McBride, T. (2021). Adolescent mental health: A systematic review on the effectiveness of school-based interventions. Early Intervention Foundation. <u>https://www.eif.org.uk/report/adolescent-mental-health-a-systematic-review-on-the-effectiveness-of-school-based-interventions</u>

- Cook, C. R., Lyon, A. R., Locke, J., Waltz, T., & Powell, B. J. (2019). Adapting a compilation of implementation strategies to advance school-based implementation research and practice. *Prevention Science: The Official Journal* of the Society for Prevention Research, 20(6), 914–935. <u>https://doi.org/10.1007/s11121-019-01017-1</u>
- Cost, K. T., Crosbie, J., Anagnostou, E., Birken, C. S., Charach, A., Monga, S., Kelley, E., Nicolson, R., Maguire, J. L., Burton, C. L., Schachar, R. J., Arnold, P. D., & Korczak, D. J. (2021). Mostly worse, occasionally better: Impact of Covid-19 pandemic on the mental health of Canadian children and adolescents. *European Child & Adolescent Psychiatry*, 1–14. https://doi.org/10.1007/s00787-021-01744-3
- Creswell, C., Shum, A., Pearcey, S., Skripkauskaite, S., Patalay, P., & Waite, P. (2021). Young people's mental health during the Covid-19 pandemic. *The Lancet. Child & Adolescent Health*, 5(8), 535–537. <u>https://doi.org/10.1016/</u> S2352-4642(21)00177-2
- Crooks, C. V., Chiodo, D., Dunlop, C., Lapointe, A., & Kerry, A. (2018). The Fourth R: Implementing evidence-based healthy relationships and mental health promotion programming in diverse contexts. In *Handbook of School-Based Mental Health Promotion*, (pp. 299–321). Springer.
- Crooks, C. V., Dunlop, C., & Short, K. (2022). A structured conceptualization of implementation-sensitive interventions for school mental health. *Canadian Journal of Community Mental Health*, 41(3). doi:10.7870/cjcmh-2022-018
- Crooks, C. V., Fortier, A., Graham, R., Hernandez, M., Chapnik, E., Cadieux, C., & Ludwig, K. (2022). Implementing a brief evidence-based Tier 2 school mental health intervention: The enablers and barriers as seen through a clinical team supervisor lens. *Canadian Journal of Community Mental Health*, 41(3). <u>https://doi.org/10.7870/</u> cjcmh-2022-021
- Cwinn, E., Barry, E. A., Weisz, J. R., Bailin, A., Fitzpatrick, O. M., Venturo-Conerly, K., & Crooks, C. V. (2022). Brief digital interventions: An implementation-sensitive approach to addressing school mental health needs of youth with mild and emerging mental health difficulties. *Canadian Journal of Community Mental Health*, 41(3). doi:10
- de Leeuw, R. R., Anke, A., de Boer, A. A., Alexander E. M. G., & Minnaert, A. E. (2020). The proof of the intervention is in the implementation; a systematic review about implementation fidelity of classroom-based interventions facilitating social participation of students with social-emotional problems or behavioural difficulties. *International Journal of Educational Research Open*, 1. <u>https://doi.org/10.1016/j.ijedro.2020.100002</u>
- Duong, M. T., Bruns, E. J., Lee, K., Cox, S., Coifman, J., Mayworm, A., & Lyon, A. R. (2021). Rates of mental health service utilization by children and adolescents in schools and other common service settings: A systematic review and meta-analysis. *Administration and Policy in Mental Health*, 48(3), 420–439. <u>https://doi.org/10.1007/ s10488-020-01080-9</u>
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82: 405–432. <u>https://doi.org/10.1111/j.1467-8624.2010.01564</u>
- Eiraldi, R., Wolk, C. B., Locke, J., & Beidas, R. (2015). Clearing hurdles: The challenges of implementation of mental health evidence-based practices in under-resourced schools. *Advances in School Mental Health Promotion*, 8(3), 124–145. <u>https://doi.org/10.1080/1754730X.2015.1037848</u>
- Fante-Coleman, T., & Jackson-Best, F. (2020). Barriers and facilitators to accessing mental healthcare in Canada for Black youth: A scoping review. Adolescent Research Review, 5, 115–136. <u>https://doi.org/10.1007/s40894-020-00133-2</u>
- Fazel, M., Hoagwood, K., Stephan, S., & Ford, T. (2014). Mental health interventions in schools 1: Mental health interventions in schools in high-income countries. *The Lancet Psychiatry*, 1(5), 377–387. <u>https://doi.org/10.1016/ S2215-0366(14)70312-8</u>
- 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). The National Implementation Research Network. <u>http://ctndisseminationlibrary.org/PDF/nirnmonograph.pdf</u>
- Fortier, A., Lalonde, G., Venesoen, P., Legwegoh, A. F., & Short, K. H. (2017). Educator mental health literacy to scale: From theory to practice. *Advances in School Mental Health Promotion*, 10:1, 65–84. <u>https://doi.org/10.1080/1754730X.2016.1252276</u>
- Gaias, L. M., Arnold, K. T., Liu, F. F., Pullmann, M. D., Duong, M. T., & Lyon, A. R. (2021). Adapting strategies to promote implementation reach and equity (ASPIRE) in school mental health services. *Psychology in the Schools*, 1–15. <u>https://doi.org/10.1002/pits.22515</u>

- Gallagher-MacKay, K., Srivastava, P., Underwood, K., Dhuey, E., McCready, L., Born, K., Maltsev, A., Perkhun, A., Steiner, R., Barrett, K., & Sander, B. (2021). Covid-19 and education disruption in Ontario: Emerging evidence on impacts. *Law and Society Faculty Publications*, 1. <u>https://scholars.wlu.ca/laso_faculty/1</u>
- Georgiades, K., Duncan, L., Wang, L., Comeau, J., Boyle, M. H., & 2014 Ontario Child Health Study Team. (2019). Six-month prevalence of mental disorders and service contacts among children and youth in Ontario: Evidence from the 2014 Ontario Child Health Study. *Canadian Journal of Psychiatry. Revue canadienne de psychiatrie*, 64(4), 246–255. <u>https://doi.org/10.1177/0706743719830024</u>
- Gresham, F. M. (2016). Features of fidelity in schools and classrooms: Constructs and measurement. In *Treatment Fidelity in Studies of Educational Intervention*, (pp. 30–46). Routledge.
- Harmon, S. L., Price, M. A., Corteselli, K. A., Lee, E. H., Metz, K., Bonadio, F. T., Hersh, J., Marchette, L. K., Rodríguez, G. M., Raftery-Helmer, J., Thomassin, K., Bearman, S. K., Jensen-Doss, A., Evans, S. C., & Weisz, J. R. (2021). Evaluating a modular approach to therapy for children with anxiety, depression, trauma, or conduct problems (MATCH) in school-based mental health care: Study protocol for a randomized controlled trial. *Frontiers in Psychology*, *12*, 639493. <u>https://doi.org/10.3389/fpsyg.2021.639493</u>
- Hoover, S., & Bostic, J. (2021). Schools as a vital component of the child and adolescent mental health system. *Psychiatric Services*, 72(1), 37–48. <u>https://doi.org/10.1176/appi.ps.201900575</u>
- Jones, S., Bailey, R., Brush, K., & Kahn, J. (2017). *Kernels of practice for SEL: Low-cost, low-burden strategies*. Harvard Graduate School of Education.
- Kuosmanen, T., Clarke, A. M., & Barry, M. M. (2019). Promoting adolescents' mental health and wellbeing: Evidence synthesis. *Journal of Public Mental Health*, 18(1), 73–83. <u>https://doi.org/10.1108/JPMH-07-2018-0036</u>
- Kutash, K., Duchnowski, A. J., & Lynn, N. (2006). *School-based mental health: An empirical guide for decision-makers*. Tampa, FL: University of South Florida.
- Le, L. K., Esturas, A. C., Mihalopoulos, C., Chiotelis, O., Bucholc, J., Chatterton, M. L., & Engel, L. (2021). Costeffectiveness evidence of mental health prevention and promotion interventions: A systematic review of economic evaluations. *PLoS medicine*, 18(5), e1003606. <u>https://doi.org/10.1371/journal.pmed.1003606</u>
- Lucente, G., Kurzawa, J., & Danseco, E. (2021). Moving towards racial equity in the child and youth mental health sector in Ontario, Canada. *Administration and Policy in Mental Health*. https://doi.org/10.1007/s10488-021-01153-3
- Lyon, A. R., & Bruns, E. J. (2019). From evidence to impact: Joining our best school mental health practices with our best implementation strategies. *School Mental Health*, 11, 106–114. <u>https://doi.org/10.1007/s12310-018-09306-w</u>
- Lyon, A. R., Bruns, E. J., Ludwig, K., Stoep, A. V., Pullmann, M. D., Dorsey, S., Eaton, J., Hendrix, E., & McCauley, E. (2015). The brief intervention for school clinicians (BRISC): A mixed-methods evaluation of feasibility, acceptability, and contextual appropriateness. *School Mental Health*, 7(4), 273–286. <u>https://doi.org/10.1007/ s12310-015-9153-0</u>
- Lyon, A. R., Cook, C. R., Locke, J., Davis, C., Powell, B. J., & Waltz, T. J. (2019). Importance and feasibility of an adapted set of implementation strategies in schools. *Journal of School Psychology*, 76, 66–77. <u>https://doi.org/10.1016/j.jsp.2019.07.014</u>
- May, C. R., Johnson, M., & Finch, T. (2016). Implementation, context and complexity. *Implementation Science*, 11, 141. <u>https://doi.org/10.1186/s13012-016-0506-3</u>
- Metz, A., Bartley, L., Ball, H., Wilson, D. K., Naoom, S. F., & Redmond, P. H. (2015). Active implementation frameworks for successful service delivery. *Research on Social Work Practice*, 25, 415–422.
- McLennan, J. D., MacMillan, H. L., & Jamieson, E. (2004). Canada's programs to prevent mental health problems in children: The research-practice gap. *Canadian Medical Association Journal*, 171(9), 1069–1071. <u>https://doi.org/10.1503/cmaj.1030676</u>
- Mental Health Commission of Canada. (2016). The case for diversity: Building the case to improve mental health services for immigrant, refugee, ethno-cultural and racialized populations, Ottawa, ON: Mental Health Commission of Canada.
- National Research Council and Institute of Medicine. (2009). Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/12480</u>

- Peddigrew, E., Andrews, N., Al-Jbouri, E., Fortier, A., & Weaver, T. (2022). Mechanisms supporting students' social and emotional learning development: Qualitative findings from a teacher-led intervention. *Canadian Journal of Community Mental Health*, 41(3). doi:10.7870/cjcmh-2022-019
- SAMHSA. (2021). NNEDLearn implementation analysis: Evidence-based and culturally relevant behavioral health interventions in practice: Strategies and lessons learned from NNEDLearn. PEP21-05-02-001MD: Office of Behavioral Health Equity, Substance Abuse and Mental Health Services Administration.
- Sanchez, A., Cornacchio, D., Poznanski, B., Golik, A., Chou, T., & Comer, J. (2017). The effectiveness of school-based mental health services for elementary-aged children: A meta-analysis. *Journal of the American Academy of Child & Adolescent Psychiatry*, 57. <u>https://doi.org/10.1016/j.jaac.2017.11.022</u>
- School-Based Mental Health and Substance Abuse Consortium. (2013). School-based mental health in Canada: A final report. Mental Health Commission of Canada. <u>https://www.mentalhealthcommission.ca/sites/default/files/</u> ChildYouth School Based Mental Health Canada Final Report ENG 0.pdf
- Stephan, S. H., Sugai, G., Lever, N., & Connors, E. (2015). Strategies for integrating mental health into schools via a multitiered system of support. *Child and Adolescent Psychiatric Clinics*, 24(2), 211–231.
- Stroul, B. (2002). Issue brief—System of care: A framework for system reform in children's mental health. Washington, DC: Georgetown University Child Development Center, National Technical Assistance Center for Children's Mental Health.
- Vaillancourt, T., Beauchamp, M., Brown, C., Buffone, P., Comeau, J., Davies, S., Figueiredo, M., Finn, C., Hargreaes, A., McDougall, P., McNamara, L., Szatmari, P., Westheimer, J., & Whitley, J. (2021). *Children and schools during Covid-19 and beyond: Engagement and connection through opportunity*. Royal Society of Canada. 2021 <u>https:// rsc-src.ca/sites/default/files/C%26S%20PB_EN_1.pdf</u>
- Viner, R., Russell, S., Saulle, R., Croker, H., Stansfield, C., Packer, J., Nicholls, D., Goddings, A. L., Bonell, C., Hudson, L., Hope, S., Ward, J., Schwalbe, N., Morgan, A., & Minozzi, S. (2022). School closures during social lockdown and mental health, health behaviors, and well-being among children and adolescents during the first Covid-19 wave: A systematic review. *JAMA Pediatrics*. 10.1001/jamapediatrics.2021.5840. Advance online publication. https://doi.org/10.1001/jamapediatrics.2021.5840
- Wandersman, A., Chien, V. H., & Katz, J. (2012). Toward an evidence-based system for innovation support for implementing innovations with quality: Tools, training, technical assistance, and quality assurance/quality improvement. *American Journal of Community Psychology*, 50(3–4), 445–459. <u>https://doi.org/10.1007/s10464-012-9509-7</u>
- Waltz, T. J., Powell, B. J., Matthieu, M. M., Damschroder, L. J., Chinman, M. J., Smith, J. L., Proctor, E. K., & Kirchner, J. E. (2015). Use of concept mapping to characterize relationships among implementation strategies and assess their feasibility and importance: Results from the expert recommendations for implementing change (ERIC) study. *Implementation Science10*, 109, 1–8. <u>https://doi.org/10.1186/s13012-015-0295-0</u>