International Journal of Mental Health Promotion, 2016
Vol. 18, No. 1, 33–48, http://dx.doi.org/10.1080/14623730.2015.1088681

Routledge
Taylor & Francis Group

Intentional, explicit, systematic: Implementation and scale-up of effective practices for supporting student mental well-being in Ontario schools

Kathryn H. Short*

School Mental Health ASSIST, P.O. Box 2558, Hamilton, ON, Canada, L8N 3L1

Increasingly, the potential for school mental health programming to enhance the well-being of children and youth is being recognized and realized. When evidence-based practices in mental health promotion and prevention are adopted in a whole school manner, students show positive social emotional and academic benefits. These findings have stimulated a proliferation of mental well-being programming for Canadian schools, with variability across offerings in terms of supporting evidence, costs and ease of implementation. In the absence of coordination and guidance, there has been uneven uptake of high-quality programming, resulting in a patchwork of sometimes competing efforts across our country. In order to build cohesive and sustainable evidence-based programming, intentional, explicit and systematic effort must be afforded to matters of implementation and scale-up. In Canada, School Mental Health ASSIST has been developed to provide leadership, implementation support and embeddable resources to the province of Ontario's 72 school districts, and 5000 schools, with a view to ensuring long-term sustainability of best-in-class school mental health practices. Key elements for uptake and scale-up are described, with an implementation science lens and an emphasis on aspects that are generalizable across jurisdictions.

Keywords: implementation science, school mental health, scale-up, sustainability

In Canada and elsewhere, mental well-being is optimally viewed as a positive state of flourishing, supported by conditions that encourage individuals to explore, take healthy risks, learn to overcome adversity and contribute to the world around them. Although there are many definitions of well-being, a particularly thoughtful and comprehensive understanding is reflected in the recently released First Nations Mental Wellness Continuum Framework (Health Canada & Assembly of First Nations, 2014), which suggests that mental well-being is inspired through 'a balance of the mental, physical, spiritual, and emotional' and that everyone, even the most vulnerable or mentally ill, has an opportunity to live as a whole and healthy individual. Further, this Framework asserts that the balance can be 'enriched as individuals have: *purpose* in their daily lives … *hope* for their future …; a sense of *belonging* and connectedness within their families, to community, and to culture; and … a sense of *meaning* and an understanding of how their lives and those of their families and communities are part of creation and a rich history (p. iv).' This approach to well-being is foundational for Canada's Indigenous people, and our wider population benefits from the thoughtful intentionality and balance implicit within this

*Email: kshort@hwdsb.on.ca

perspective. Purpose, hope, belonging and meaning are indeed perceived to be central elements contributing to mental well-being for all citizens.

The science and practice of mental health promotion is an area of keen interest in many countries around the world, in part because of its potential to inspire purpose, hope, meaning and belonging across populations. There is evidence to suggest that high-quality activities in this area yield significant benefit both for communities and individuals (Barry & Jenkins, 2007; National Research Council & Institute of Medicine, 2009; World Health Organization, 2005), and that the impact is optimized when efforts are focused early in the lifespan (Mental Health Commission of Canada, [MHCC], 2012; Weisz, Sandler, Durlak, & Anton, 2005). The social and economic return on investment for early mental health promotion activities has been well documented (Public Health England, 2014; World Health Organization, 2013).

Schools have routinely been identified as an excellent setting through which to promote mental well-being. The skills, attitudes, knowledge and habits associated with flourishing and resilience can be explicitly taught and nurtured in supportive classroom settings, to the benefit of all students (Department of Education & Skills/Health Service Executive/Department of Health, Ireland, 2013; Farrington et al., 2012; Weare, 2015). At the same time, educators are in an ideal position to notice when particular students may be struggling to maintain their positive mental health (Rowling, 2009; Stewart-Brown, 2006). As approximately one in five students struggles with a mental health problem that interferes with academic performance (Waddell, Offord, Shepherd, Hua, & McEwan, 2002), there is urgency within schools to engage in mental health promoting activities that enhance attendance and performance, while at the same time positively influencing trajectories toward mental well-being.

Tiered intervention frameworks are foundational for school mental health activities (Rowling & Weist, 2004). Many jurisdictions have adopted service delivery models that offer a continuum of service, that is, mental health promotion for all students (universal), preventive interventions for students at risk (targeted) and more intensive therapy for the most vulnerable students (individual/selected), often in collaboration with community partners (Kutcher & McLuckie 2010; Kutash, Duchnowski, & Lynn, 2006). The cross-sectoral tiered intervention framework can be represented aspirationally (Figure 1) to convey the vision that schools provide primarily mental health promotion and prevention services within the system of care, whereas community partners assume the main responsibility for serving children and youth requiring clinical intervention. Providing positive school and classroom environments, promoting social emotional skill development explicitly, and equipping staff and students with mental health literacy are examples of strategies that have been investigated at a universal population level (e.g. Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011) and enhanced doses of skill development are often used as preventive intervention for targeted students at risk (e.g. Domitrovich et al., 2010). Pathways to, from and through services are essential to ensuring that students and families can access the level of support that they need at any given time (School Mental Health ASSIST, 2015b).

Many systematic reviews and syntheses have been conducted to summarize ‘what works’ in school mental health (e.g. Kutash et al., 2006; Santor, Short & Ferguson, 2009; Weist, Lever, Bradshaw, & Sarno Owens, 2014). The types of programming known to lead to impactful outcomes for student mental health have been well articulated. For example, a synthesis of systematic reviews conducted by the School Based Mental Health and Substance Abuse (SBMHSA) Consortium (2013) highlighted the value of social emotional learning for bolstering student coping ability and academic

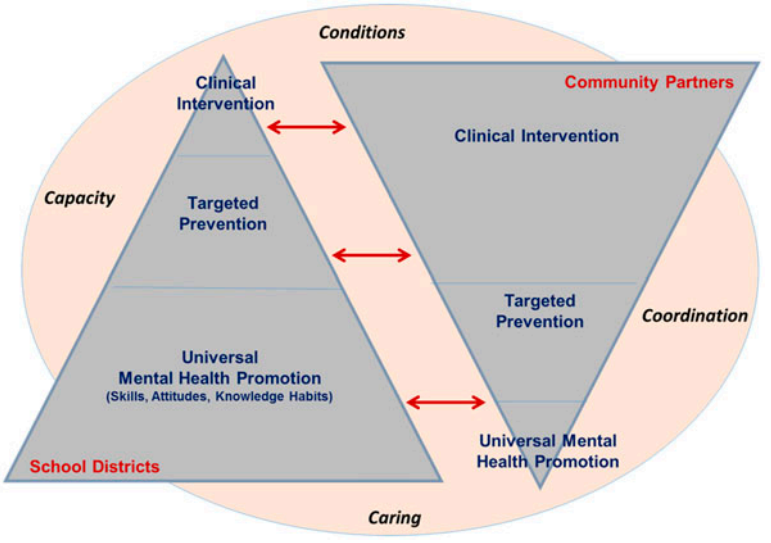

Figure 1. Tiered intervention model within a system of care

achievement, and the strength of behavioral/cognitive behavioral programming for preventing and intervening with internalizing and externalizing problems at school. Many manualized programs adhering to findings from this growing evidence base have been designed and tested in school settings, and there are now several repositories of promising and proven programs (e.g. National Registry of Evidence-Based Programs and Practices, Collaborative for Academic, Social and Emotional Learning). Further, several research teams have identified common elements or kernels of proven programs that are thought to be the active ingredients across many of these packaged manuals (Chorpita et al., 2013; Embry & Biglan, 2008).

While the research literature provides clear guidance on how best to promote positive mental health amongst students, scans of the practice landscape conducted in Canada over the past several years revealed a lack of consistency in the use of these evidence-informed techniques (SBMHSA Consortium, 2013; Short, Ferguson, & Santor, 2009). These studies revealed that there are a very large number of programs and strategies in place across the country, but that only a fraction of these are strongly rooted in evidence and/or have been locally evaluated (SBMHSA Consortium, 2013). National survey data collected in tandem with the practice scan identified several organizational barriers to the uptake of effective school mental health practices (e.g. lack of role clarity, inconsistent processes and protocols; insufficient professional development; competing priorities), and a need for provincial leadership and cross-sectoral coordination (SBMHSA Consortium, 2013). Further, respondents reported that they were inundated with programs and services in support of student mental health and that they felt confused and overwhelmed by the volume of options to be considered. Findings from similar surveys related to perceived educator capacity are consistent in noting that educators feel very concerned about student mental health, but generally ill-equipped to provide the necessary supports (Canadian Teachers' Federation, 2012; Rodger, 2014).

To move from a circumstance characterized by a patchwork of competing innovations and priorities to a cohesive system of high-quality evidence-based care that reaches every student requires concerted and systematic effort. Just as decades of

empirical study have resulted in a strong body of knowledge related to program elements that contribute to student well-being, the same degree of attention is warranted to ensure that the implementation infrastructure is in place to support high-quality programming in schools. In particular, school boards and schools need to ensure a level of readiness vis-à-vis organizational conditions and workforce capacity in order to set the stage for high-yield programming. Further, implementation guidance is required to make certain that the right programming is selected, embedded and carried out with fidelity and support so that intended benefits of the initiative can be optimized. In the absence of these implementation elements, islands of excellence may exist, some of which follow pilot/innovation funding initiatives or charismatic leaders but subside when funding stops flowing or leadership changes. Adoption, scale-up and sustainability of effective school mental health practices is a separate and critical enterprise requiring a systematic, intentional and explicit process to result in a cohesive system of care for children and youth (Short, Weist, Manion, & Evans, 2012).

Although the literature related to implementation of mental health programming in schools is in its relative infancy, there are lessons from implementation science that can be fruitfully applied. For example, the National Implementation Research Network (NIRN) recommends consideration of implementation stages (exploration, installation, initial implementation, full implementation), structures and processes that can be helpful in the adoption and scale-up of evidence-based programming (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; Metz & Bartley, 2012). In particular, three core elements have been suggested as essential to ensure sustainable and scalable programming; the use of implementation teams, implementation infrastructure and data-driven continuous quality improvement cycles (Metz, Naoom, Halle, & Bartley, 2015). *Implementation teams* have been shown to play a critical role in bringing interventions to scale, walking alongside those enacting programming with guidance, monitoring and coaching support (Meyers, Durlak, & Wandersman, 2012; Metz & Bartley, 2012). For large-scale initiatives, several teams are recommended, at various levels of the system (Metz et al., 2015). NIRN asserts that *implementation infrastructure* is also a critical aspect of successful adoption and scale-up of evidence-based programming. Specifically, this involves ensuring that the organization has the leadership, structures and processes necessary for initiating and maintaining the intervention, and that individuals involved have the general and innovation-specific capacity to deliver it with fidelity (Damschroder et al., 2009; Fixsen et al., 2005). Finally, the use of *data-driven continuous quality improvement cycles* has also been associated with implementation success (Damschroder et al., 2009; Chinman, Imm, & Wandersman, 2004). Gathering assessment and readiness data in planning stages, and including process indicators and routine feedback loops to monitor progress, can help to ensure that the initiative unfolds effectively, in alignment with local needs and preferences (Metz et al., 2015).

In response to national scan and survey findings, and drawing on implementation science foundations, School Mental Health ASSIST (Awareness, Strategy Selection, and Implementation Support Team, SMH ASSIST) was created in 2011 in order to help address gaps in organizational conditions and capacity, so that the promise of effective school mental health programming might come to fruition in Ontario, Canada's largest province. As an intermediary organization, SMH ASSIST works as a knowledge and change mobilizer alongside government and in concert with other provincial organizations charged with enacting Ontario's Comprehensive Mental Health and Addictions Strategy (Strategy), *Open Minds, Healthy Minds* (Ministry of Healthy and Long-Term Care (MOHLTC), 2011). This is a multi-year Strategy that includes commitments from

14 provincial Ministries. The first three years of the Strategy focused on children and youth and was led by the Ministry of Children and Youth Services with strong support from MOHLTC and the Ministry of Education (EDU). SMH ASSIST was one of 22 initiatives funded through the Strategy, and was complemented by other investments from EDU related to curricular enhancements and support for professional learning (e.g. release of a new Health and Physical Education curriculum that features enhanced coverage of social emotional skills and mental health literacy learning; introduction of a K-12 guide, *Supporting Minds: An educator's guide to supporting student mental health and well-being*). In addition, EDU provided funding for every school board in the province to hire a Mental Health Leader, a senior mental health professional responsible for coordinating the board mental health strategy. Other Ministries led Strategy initiatives, such as expansion of telepsychiatry, funding for new mental health workers and the introduction of service collaboratives to support community collaboration. Phase 2 of the Strategy takes a lifespan perspective, with continued enhancements for the system of care for children and youth, including promotion, prevention and early intervention (MOHLTC, 2014).

The importance of this explicit multi-year government commitment to the goal of enhancing mental well-being cannot be overstated. The Strategy provides direction and provincial leadership, and has been structured in such a way that policy teams at various levels of government are working across sectors in new ways, modeling the sort of collaboration required for system transformation in child and youth mental health. Financial commitments to underscore the directions outlined in the Strategy have been critical. At the same time, while having a Strategy has provided leadership and opportunity, this in itself would have been insufficient to ensure system cohesion. Given the complexity and scale of required work, a number of processes and structures were required to support the provincial and local execution of this Strategy. Many of these intermediary elements are consistent with those outlined by NIRN: implementation teams, implementation infrastructure and data-driven continuous quality improvement cycles.

Within the Strategy, SMH ASSIST is the provincial implementation team with direct responsibility for school mental health. This team provides leadership, resources and direct coaching support to the province's 72 school boards and 5000 schools, serving approximately two million students across six distinct geographic regions. Each of these regions is distinct in character with urban, suburban and rural/remote elements. Mental health programming and support is shaped to align with local needs. Sixty school boards are English-speaking, and 12 provide instruction exclusively in French. School boards are identified as either Public ($n = 35$) or Catholic ($n = 37$). There are approximately 115,000 full-time equivalent teachers working in the province of Ontario. In a region as large and diverse as Ontario, implementation support requires an appreciation for both consistency of messaging and flexibility of practice.

The roll-out of supports to boards was phased in over three years. In the first year, 2011–2012, EDU provided funding for 15 boards to receive a Mental Health Leader, and to receive direct support from the SMH ASSIST team. These boards were selected to ensure a diverse and provincially representative group, based on geography, size, French/English language and Public/Catholic type. In fall 2012, a second cohort of 15 boards was selected to receive this dedicated position and SMH ASSIST support. In 2013–2014, all remaining boards received this level of support. This gradual scale-up allowed SMH ASSIST to tap into the implementation experiences of cohort one and two boards to develop field-informed resources and guidance for those boards joining the initiative later in the process. A secondary outcome of this gradual entry was the development of a

trusting relationship across members of early cohorts that has facilitated an ongoing authentic community of practice (Wenger, McDermott, & Snyder, 2002).

Implementation Team Structure and Supports

SMH ASSIST is composed of a full-time Director and 10–12 part-time contract Implementation Coaches who have extensive experience as senior mental health professionals and/or senior administrators. Two of these coaches provide dedicated support to the province's 12 French language school boards, while the others each serve four to ten English language boards. There are at least two coaches assigned to serve each of the six geographic regions of the province. SMH ASSIST also works with an Indigenous mental health professional who provides consultation to all boards on matters related to aboriginal students (First Nations, Inuit, and Métis).

Support is provided to school boards through key individuals within each board who serve a liaison role with the provincial Strategy (primarily Mental Health Leaders and the Superintendents with responsibility for mental health to whom they report). This support is offered via provincial Mental Health Leadership Meetings, regional meetings, special interest groups and individual board coaching. This suite of implementation support offerings was developed over time, in response to feedback from key stakeholders. Regularly scheduled provincial Mental Health Leadership Meetings facilitate group leadership learning, and provide an opportunity for Mental Health Leaders and Superintendents to discuss issues arising in their boards and to share ideas for working through implementation concerns. During these meetings, SMH ASSIST has provided leadership modules on topics such as: implementation science, resource mapping, systematic mental health awareness, meaningful youth and family engagement, evidence-based practice in school mental health, working with specific populations and best practices for suicide prevention/intervention/postvention. These meetings also include structured time for peer mentorship and learning. Participating Mental Health Leaders and Superintendents have input into Mental Health Leadership Meeting agendas, and often lead portions of the meeting to create a climate of interactive shared learning across the province. In 2014–2015, regional meetings were introduced, to allow for more frequent dialogue and learning about locally relevant issues. Topics covered in regional sessions are sometimes a deepening of themes emerging in provincial meetings (e.g. rolling out professional learning or other resources introduced provincially), and sometimes unique to issues arising in the region (e.g. supporting students transitioning from remote northern Indigenous communities). Agendas are co-created with participating school boards and meeting leadership is shared. Full day in person Special Interest Group (SIG) meetings on challenging areas of school mental health have been facilitated by external experts on topics such as early psychosis, supporting transgender youth, meaningful family engagement and eating/weight-related issues at school. Mental Health Leaders are offered attendance at SIG meetings first, but if there is space available, other school mental health professionals are included. In addition, *webinars* are made accessible to all school mental health professionals in Ontario. In 2014–2015, the following topics were covered: early years mental health, LGBTQ mental health, personal resiliency and wellness, and brief implementation friendly evidence-based tier 2 interventions. Between meetings, the community of practice is extended as Mental Health Leaders pose questions, describe successes and challenges, and exchange ideas using EENet Connect, an online community which serves as a platform for communication within and across the 22 initiatives of *Open Minds,*

Healthy Minds, within the Evidence Exchange Network for Mental Health and Addictions (http://eenet.ca/).

In addition to this group formatted implementation support, SMH ASSIST provides each board with access to an implementation coach who works individually with Mental Health Leaders and Superintendents to develop and execute the board mental health and addictions strategy. The implementation coach offers guidance related to the sequential and coordinated development of organizational conditions, capacity building and uptake of research-informed practices. Resources and support are provided as boards engage in their unique plan-do-study-act implementation cycles. This includes helping boards to work through difficult implementation issues that arise as a result of the change process inherent in this climate-changing work, such as assistance with role definitions and modifications, introducing new processes and protocols, and honoring the legacy work that school psychology and social work staff have been providing for decades in some boards.

The provincial implementation coaching team meets regularly to discuss practice themes emerging across boards during individualized and regional coaching sessions. An implementation rounds approach is used (Teitel, 2009), and discussion is logged using a standard template, that is, using a rounds-type meeting format, coaches surface common issues and problems occurring in boards and analyze these collectively. Solutions are brainstormed and common messaging is decided upon by consensus to ensure that all boards receive the same communication about these issues. In addition, this team engages in internal professional development to ensure current knowledge about school mental health implementation, coaching methods and advances in evidence-based practice (Short et al., 2012).

At the same time that SMH ASSIST provides this range of group and individualized support, the team explicitly and intentionally models implementation coaching principles for school boards, so that they can effectively create and support their own internal implementation teams. These board-level teams are typically composed of representatives from a range of stakeholder groups (e.g. senior and school administrators, school mental health professionals, teachers, parents, youth, community partners), and support the Mental Health Leader and Superintendent in setting the board vision for mental health and addictions, shaping the board mental health and addictions strategy and action plan, and carrying out related implementation cycles. In a cascading manner, the board-level implementation team serves as a model for planning and intervention for schools, and provides coaching support to school-level implementation teams. This cascade serves to reinforce the intentional and systematic nature of implementation coaching to support effective school mental health practices at all levels of the system.

Implementation infrastructure

In keeping with NIRN-suggested core elements (Metz et al., 2015), SMH ASSIST has identified a number of specific infrastructure and process aspects that appear to be fundamental for best practices in adoption, scale-up and sustainability of evidence-based programming.

Organizational conditions

Research suggests there are a number of system-level conditions that are critical for effective school mental health to flourish (Chinman et al., 2004; Flaspohler,

Table 1. Top 10 Organizational conditions for effective school mental health

1. Commitment	6. Standard processes
2. Mental health leadership team	7. Systematic professional learning
3. Clear and focused vision	8. Mental health strategy/action plan
4. Communication and shared language	9. Collaboration
5. Assessment of (initial) capacity and resources	10. Ongoing quality improvement

Anderson-Butcher, Bean, Burke, & Paternite, 2008; Weist et al., 2005). Having these conditions in place helps organizations (systems, school boards, schools) to ensure readiness for the uptake and sustainability of evidence-based practices. SMH ASSIST consulted this literature and worked with key stakeholders to develop a 'Top 10 List' of organizational conditions that align with research and reflect the practice experience of senior leaders in Ontario school boards (Table 1). A variety of dissemination vehicles were developed to build understanding about these conditions amongst senior leaders (e.g. slide presentations, reflection tools).

In consultation with provincial associations for principals and vice principals, it was determined that these same organizational conditions are helpful foundational elements for school-level efforts in this area. These conditions were identified and elaborated in the resource, *Leading Mentally Healthy Schools: A Resource for School Administrators* (School Mental Health ASSIST, 2013a) which is designed to provide 'one-stop' access to information, resources and tools to support school leaders in their efforts to promote student well-being. It was co-created with school administrators and features ways to create the school conditions that support effective mental health practices.

In addition to resources aimed specifically at senior and school leaders, SMH ASSIST has developed a number of tools to assist school boards more generally in establishing or reinforcing particular organizational conditions. For example, to help with the assessment of initial capacity, all boards were given a Resource Mapping Toolkit that provides direction for conducting an in-depth assessment of board and school-level strengths and needs. A template for the creation of a board mental health and addictions strategy, as well as decision support tools to help with the selection of professional development resources and mental health awareness activities, has also been shared with boards. SMH ASSIST released a resource to help board teams with suicide prevention, intervention and postvention, and encouraged Mental Health Leaders to ensure that they had up-to-date protocols in place (School Mental Health ASSIST, 2013b).

Mental health capacity building

Beyond ensuring solid organizational conditions, it is also important to explicitly and systematically attend to workforce capacity building during system readiness phases of implementation. There is considerable need to help educators become better equipped to support the social emotional well-being of students in Ontario schools (Short et al., 2009). A careful look at the capacity-building needs of educators suggests that there are many varied audiences within school boards, each requiring a tailored approach to knowledge sharing. That is, while all school board staff members require some level of mental health awareness (e.g. all educators, trustees, office staff, bus drivers), some require a deeper level of mental health literacy (e.g. principal, teachers, guidance counselors) and a few require mental health expertise (e.g. social work, psychology staff).

Table 2. Continuum for school board capacity building in school mental health

Mental health awareness	Mental health literacy	Mental health expertise
Professional learning strategies for providing basic mental health information, tailored for different school board audiences	Professional learning strategies for ensuring a deeper working knowledge of mental well-being, for those who work directly with students	Professional learning strategies for ensuring those who serve vulnerable students have the knowledge/skills to effectively provide evidence based SMH programming
ALL	SOME	FEW

SMH ASSIST has created, and will continue to create, resources to support professional learning across this capacity-building continuum (see Table 2).

A number of slide presentations have been shared with Mental Health Leaders for delivering basic *mental health awareness* information to general audiences. They are encouraged to draw on these slides, and to enhance and contextualize them for their various audiences within the school board. *Mental health literacy* for educators is most likely to be impactful if principles for adult learning are followed, and learning sessions are offered iteratively, in an embedded fashion, with ongoing coaching support. *Supporting Minds: An Educator's Guide to Promoting Students' Mental Health and Well-Being* (Ontario Ministry of Education, 2013) provides the content that has been incorporated into a series of mental health literacy modules for educators. Each module includes a four-part slide presentation, a motion graphic summary of concepts, an ask-the-expert video series, table activities, links to other resources and a Facilitation Guide. The Mental Health Leader and Superintendent in each board have responsibility for the roll out of these resources, including delivery, training and ongoing coaching with school teams to ensure implementation of the resources with fidelity. Finally, it is often the case that those who work with our most vulnerable students are given the least opportunity for ongoing professional learning. SMH ASSIST has made a commitment to ensuring that school mental health professionals receive up-to-date resources in areas identified as most pressing. *Expertise level* learning has been offered via workshops, SIGs and webinars as noted above.

Mental health promotion and prevention programming processes

SMH ASSIST has provided leadership and guidance meant to encourage school boards and schools to first attend to organizational conditions and capacity building before engaging in the selection and uptake of mental health promotion and prevention programming. In the absence of this foundational work, a patchwork of programming can develop in boards, often duplicative and unevenly rooted in evidence. Further, SMH ASSIST has been encouraging school boards to think carefully about sustainability of programming, and to avoid the threat of multiple pilots that cannot be adequately or equitably delivered to scale within the board. A three-step process for approaching mental health programming has been introduced: (i) assess current programming to ensure that what is being offered is evidence based, locally relevant, and high yield (and abandon those that are not achieving their promise); (ii) using decision support tools, select a small number of new low-cost, high-impact approaches to address target areas identified through the strategy and evaluate these locally; and (iii) work toward embedding evidence-based practices in daily school life universally.

Toward embedded, implementation-aware programming, SMH ASSIST is embarking on several provincial pilots related to everyday social emotional skill development in elementary and secondary schools. These pilots use a core elements approach, rather than adopting any one particular manualized program, and aim to put low-cost, curriculum-linked materials into the hands of educators so that every student will have access to this explicit instruction. In addition, the team has released the first in a series of decision support tools related to mental health programming with students (School Mental Health ASSIST, 2015a). A tool to aid in decisions about mental health promotion programming is in development.

Data-driven continuous quality improvement cycles

SMH ASSIST is committed to the uptake of sustainable, evidence-based practices in school mental health. This team provides guidance to the field with respect to the scope and sequence of work at a board and school level, in part via a visible and explicit three-year provincial strategy, and one-year action plan, within which a series of implementation cycles is built to enact the core work across the province. As noted above, the SMH ASSIST Strategy for 2011–2014, readiness phase, included three primary areas of focus:

(1) creating the *organizational conditions* for effective school mental health;
(2) enhancing *mental health capacity* amongst school board professionals; and,
(3) selecting, implementing and monitoring *evidence-based school mental health promotion and prevention programming.*

Each year, an action plan is developed with specific areas of focus to move toward the overall strategy goals. Implementation cycles are put in place to ensure that key actions and timelines are articulated and responsibilities understood. Mental Health Leadership Teams in school boards are expected to mimic this strategy development and action plan process. The planning cycle depicted in Figure 2 is used to guide this work at the provincial, board and school level. A board level application is provided, illustratively.

Implementation monitoring tools have been developed, and their use modeled, at the provincial level. Key constructs have been measured using quantitative and qualitative methods throughout the scale-up process. From spring 2012 to spring 2014, every participating board (based on a staggered cohort approach) completed an online Board Mental Health and Addictions Scan measuring three proximal constructs of interest: organizational conditions, workforce capacity and evidence-based programming. Qualitative data were collected through focus groups and interviews, and this information has been used toward ongoing quality improvement of resources, guidance and professional learning sessions. An implementation log has been used to capture learning that can contribute to the emerging science on large-scale adoption of evidence-based school mental health.

The Board Mental Health and Addictions Scan was introduced on February 2012, and was repeated on June 2012, and winter/spring of each of the following years. In 2015, monitoring moved to an annual basis. The Scan requires one submission per board, with ratings by consensus from the board implementation team, and final approval from the Superintendent. Boards are asked to reflect on their progress in key

Phases of Work	Sample Board Activities
Orientation	• Review board documentation related to system plans and priority initiatives • Identify key board and community stakeholders • Learn about past board successes and challenges in school mental health
Assessment	• Complete the Board Mental Health and Addictions Scan • Conduct/update resource mapping of system and school level resources • Conduct a safety net check (protocols for suicideintervention and prevention, threat, etc.) • Review board data related to student well-being
Strategy/Action Plan Development	• Use assessment data to analyze board strengths and needs • Identify priority areas for the board mental health and addictions strategy/action plan • Select 2-4 areas offocus for first/next action plan
Strategy/Action Plan Implementation	• Create and enact work plans to effectively implement the mental health and addictions strategy and action plan, with clear roles, responsibilities, andtimelines • Work withyourimplementation coach as challenges emerge
Strategy/Action Plan Monitoring	• Reviewprogresstowards your strategy/action plan goals, analyze processes and outcomes • Check that the sequence of the board mental health strategy ensures organizational foundations and systematic cascade of literacy and support • Submit the annual Ministry reporting template to describe your progress
Strategy /Action Plan Refinement	• Refine, abandon, or complement initiatives based on data from the monitoring stage • Document decisions and changes to the strategy/action plan • Prepare for the next assessment phase

Figure 2. Continuous quality improvement cycle for province, board, and school level

Table 3. Scaling for items on the board mental health and addictions scan

Awareness/contemplation	(e.g. no work in this area, but the board may be considering action)
Exploration	(e.g. reviewing the literature, talking with colleagues, scanning the work of others)
Installation	(e.g. mobilizing people, getting approvals, vetting drafts)
Initial implementation	(e.g. piloting in a few places, trying out parts of the activity, circulating first versions)
Partial Implementation	(e.g. revising based on initial evaluation, expanding pilot, targeted communication)
Full Implementation	(e.g. scaling up to board level, final versions, broad communication)
Sustainability	(e.g. embedded in district culture, part of practice, extended to special population)

areas, and to use a modified version of the NIRN implementation scale to anchor most of the ratings, as per Table 3.

To provide a current ‘implementation snapshot’, 10 critical items on the scan representing each of the organizational conditions, for the province and by cohort, were

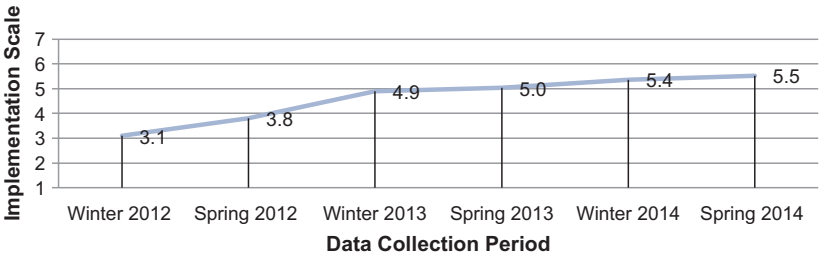

Figure 3. Cohort 1 data on critical items measuring overall organizational conditions over time

mapped (Palijan, Satkunedran, & Short, 2015). Based on ratings from winter 2014, the perceived status of implementation across all 10 organizational conditions for the province was rated at 'initial implementation' stage overall. However, those who have had a longer period of time to consolidate organizational conditions appear to be more ready for implementation (i.e. cohort 1 ratings reflected 'partial implementation' stage, while cohort 2 were rated at an 'initial implementation' stage, and cohort 3 at the 'introducing' stage).

An additional set of analyses were conducted on cohort 1 data from spring 2012 to spring 2014. The overall means for all ten organizational conditions were mapped over six time points, using the scale in Table 3 (see Figure 3). In winter 2012, cohort 1 district school boards rated themselves at the 'introducing' stage (mean = 3.1) across all 10 conditions. By spring 2014, these district school boards had increased to an overall 'partial implementation' stage (mean = 5.5). Over a period of two years, implementation progress for this cohort has increased, and is moving toward full implementation.

This small sampling of descriptive data is provided to demonstrate the value placed on implementation monitoring within this provincial initiative. The broader findings suggest that Ontario district school boards are deepening their implementation progress related to the introduction of organizational conditions (Table 1), and are systematically cascading professional learning throughout the system (Palijan et al., 2015). Ontario school boards are encouraged to track their own progress, and several workshops have been provided to build skills related to data use and reporting related to school mental health strategy and action plans.

Conclusion

In summary, SMH ASSIST is a provincial *implementation team* designed to provide a systematic roll-out of research-based practices in school mental health across Ontario's school boards. Working closely with Mental Health Leaders positioned within each board, resources are cascaded across schools and classrooms. The coaching model being modeled provincially by SMH ASSIST is encouraged at the school board level as board-level implementation teams provide parallel support to school teams. With a focus on *implementation infrastructure and processes*, SMH ASSIST has influenced school boards to work strategically and systematically, first building organizational conditions at the board and school level, then enhancing capacity, prior to selecting high-quality programming to support student mental well-being. Advantages have been experienced in terms of system coherence, school board confidence and consistency of

reach for high-yield practices. It is anticipated that this implementation model will lead to more sustainable outcomes for student well-being, but further study over longer time periods is required to demonstrate this. *Data-driven continuous improvement cycles* assist with implementation monitoring and quality assurance for this provincial intervention. Much of the intervention is being co-created by stakeholder organizations and Ministry partners from across sectors.

While there isn't a clear road map to follow to bring this work to scale in a region as large as Ontario, the implementation science literature has been a helpful guide. As an embedded initiative within Ontario's Mental Health and Addictions Strategy, with meaningful inter-ministerial collaboration and ongoing support and partnership with EDU, SMH ASSIST is well positioned to make a difference in the well-being of children and youth, through intentional, explicit and systematic system change in school mental health. With continued effort, it is hoped that this approach will have lasting impacts, enhancing the sense of purpose, hope, belonging and meaning in the lives of Ontario's children and youth. It is further hoped that the lessons learned here, though bound by a particular time and place, will be of interest and value to other jurisdictions in their efforts to promote student mental well-being to scale, in a sustainable manner.

Disclosure statement

No potential conflict of interest was reported by the author.

References

Barry, M. M., & Jenkins, R. (2007). *Implementing mental health promotion*. Oxford: Elsevier.

Canadian Teachers' Federation. (2012). *Understanding teachers' perspectives on student mental health: A national survey*. Ottawa: Canadian Teachers' Federation. Retrieved from http://www.ctf-fce.ca/Research-Library/StudentMentalHealthReport.pdf

Chinman, M., Imm, P., & Wandersman, A. (2004). *Getting to outcomes™ 2004: Promoting accountability through methods and tools for planning, implementation, and evaluation*. Santa Monica, CA: RAND Corporation. Retrieved from http://www.rand.org/pubs/technical_reports/TR101

Chorpita, B. F., Weisz, J. R., Daleiden, E. L., Schoenwald, S. K., Palinkas, L. A., Miranda, J., … The 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*, 999–1009.

Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science, 4*(50). Retrieved from http://www.implementationscience.com/content/4/1/50

Department of Education and Skills/Health Service Executive/Department of Health, Ireland. (2013). *Well-being in post-primary schools: Guidelines for mental health promotion and suicide prevention*. Retrieved from https://www.education.ie/en/Schools-Colleges/Information/Resources-Guidance/Well-Being-in-Post-Primary-Schools-Guidelines-for-Mental-Health-Promotion-and-Suicide-Prevention-2013.pdf

Domitrovich, C. E., Bradshaw, C. P., Greenberg, M. T., Embry, D., Poduska, J. M., & Ialongo, N. S. (2010). Integrated models of school-based prevention: Logic and theory. *Psychology in the Schools, 47*, 71–88. doi:10.1002/pits.20452

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.

Embry, D. D., & Biglan, A. (2008). Evidence-based Kernels: Fundamental units of behavioral influence. *Clinical Child and Family Psychology Review, 11*, 75–113. doi:10.1007/s10567-008-0036-x

Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T. S., Johnson, D. W., & Beechum, N. O. (2012). *Teaching adolescents to become learners. The role of noncognitive factors in shaping school performance: A critical literature review*. Chicago, IL: University of Chicago Consortium on Chicago School Research.

Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231). Retrieved from http://ctndisseminationlibrary.org/PDF/nirnmonograph.pdf

Flaspohler, P. D., Anderson-Butcher, D. A., Bean, J., Burke, R. W., & Paternite, C. E. (2008). Readiness and school improvement: Strategies for enhancing dissemination and implementation of expanded school mental health practices. *Advances in School Mental Health Promotion, 1*, 16–27.

Health Canada & Assembly of First Nations. (2014, December). *First nations mental wellness continuum framework*. Ottawa. Retrieved from http://health.afn.ca/uploads/files/24-14-1273-fn-mental-wellness-framework-en05_low.pdf

Kutash, K., Duchnowski, A., & Lynn, N. (2006). *School-based mental health: An empirical guild for decision-makers*. The Research and Training Center for Children's Mental Health, Florida Mental Health Institute, University of South Florida.

Kutcher, S., McLuckie, A., & For the Child and Youth Advisory Committee, Mental Health Commission of Canada. (2010). *Evergreen: A child and youth mental health framework for Canada*. Calgary, AB: Mental Health Commission of Canada.

Mental Health Commission of Canada. (2012). *Changing directions, changing lives: The mental health strategy for Canada*. Calgary, AB: Author. Retrieved July 16, from http://www.mentalhealthcommission.ca/English/system/files/private/MHStrategy_StrategyText_ENG_0.pdf

Metz, A., & Bartley, L. (2012). Active implementation frameworks for program success: How to use implementation science to improve outcomes for children. *Zero to Three Journal, 32*, 11–18.

Metz, A., Naoom, S. F., Halle, T., & Bartley, L. (2015). *An integrated stage-based framework for implementation of early childhood programs and systems (OPRE Research Brief OPRE 2015 48)*. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Meyers, D. C., Durlak, J. A., & Wandersman, A. (2012). The quality implementation framework: A synthesis of critical steps in the implementation process. *American Journal of Community Psychology, 50*, 462–480. doi:10.1007/s10464-012-9522-x

National Research Council and Institute of Medicine. (2009). Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities. Committee on prevention of mental disorders and substance abuse among children, youth and young adults: Research advances and promising interventions. In M. E. O'Connell, T. Boat, & K. E. Warner (Eds.), *Board on children, youth, and families, division of behavioral and social sciences and education*. Washington, DC: The National Academies Press.

Ontario Ministry of Education. (2013). *Supporting minds: An educator's guide to supporting student mental health and well-being*. Ontario: Queen's Printer. Retrieved from https://www.edu.gov.on.ca/eng/document/reports/SupportingMinds.pdf

Ontario Ministry of Health and Long-Term Care. (2011). *Open minds, healthy minds: Ontario's comprehensive mental health and addictions strategy*. Ontario: Queen's Printer. Retrieved from http://www.health.gov.on.ca/en/common/ministry/publications/reports/mental_health2011/mentalhealth_rep2011.pdf

Ontario Ministry of Health and Long-Term Care. (2014). *Expanded mental health and addictions strategy*. Ontario: Queen's Printer. Retrieved from http://www.health.gov.on.ca/en/public/programs/mentalhealth/docs/open_minds_healthy_minds.pdf

Palijan, S., Satkunedran, T., & Short, K. H. (2015). *Success for all: Using implementation science to build conditions and capacity to support student mental health in Ontario schools*. Paper presented at the annual meeting of the American Educational Researchers Association, Chicago, IL.

Public Health England. (2014, September). *Local action on health inequalities: Understanding the economics of investments in the social determinants of health*. Health Equity Briefing 9.

Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/356051/Briefing9_Economics_of_investments_health_inequalities.pdf

Rodger, S., Hibbert, K., Leschied, A., Pickel, L., Atkins, M., & Stepien, M. (2014). *Mental health education in Canada: Teacher education literature review*. Report prepared for Physical and Health Education Canada. Retrieved from http://www.phecanada.ca/sites/default/files/teachereducationliteraturereview.pdf

Rowling, L.. (2009) Strengthening "school" in school mental health promotion, *Health Education, 109*, 357–668. doi:10.1108/09654280910970929

Rowling, L., & Weist, M. D. (2004). Promoting the growth, improvement and sustainability of school mental health programs worldwide. *International Journal of Mental Health Promotion, 6*, 3–11. doi:10.1080/14623730.2004.9721925

Santor, D., Short, K., & Ferguson, B. (2009). Taking mental health to school: A policy-oriented paper on school-based mental health for Ontario. Paper prepared for The Provincial Centre of Excellence for Child and Youth Mental Health at CHEO. Retrieved from http://www.excellenceforchildandyouth.ca/sites/default/files/position_sbmh.pdf

SBMHSA Consortium. (2013). *School mental health in Canada: Report of findings*. Mental Health Commission of Canada. Retrieved from http://www.mentalhealthcommission.ca/English/node/845?terminitial=35

School Mental Health ASSIST. (2013a). *Leading mentally healthy schools: A resource for school administrators*. Toronto, ON. Retrieved from https://dl.dropboxusercontent.com/u/6199808/LeadingMentallyHealthSchools.pdf

School Mental Health ASSIST. (2013b). *Youth suicide prevention at school: A resource for school mental health leadership teams*. Toronto, ON. Retrieved from https://drive.google.com/file/d/0B0KNb-oTvqjOVzNjbkFFbmI4UWM/view?pli=1

School Mental Health ASSIST. (2015a). School mental health decision support tool: Student mental health awareness initiatives. Toronto, ON. Retrieved from https://drive.google.com/file/d/0B0KNb-oTvqjOdEhIS0MwRE00Z28/view?pli=1

School Mental Health ASSIST. (2015b). *Pathways support toolkit: Preparing school boards for collaborative planning with community partners to support child and youth mental health*. Support document prepared in collaboration with the Ontario Centre of Excellence for Child and Youth Mental Health, Toronto, ON. Retrieved from http://smh-assist.ca/ October 2015 onwards

Short, K., Ferguson, B., & Santor, D. (2009). *Scanning the practice landscape in school-based mental health in Ontario*. Paper prepared for The Provincial Centre of Excellence for Child and Youth Mental Health at CHEO. Retrieved from http://www.excellenceforchildandyouth.ca/sites/default/files/position_sbmh_practice_scan.pdf

Short, K., Weist, M. D., Manion, I., & Evans, S. W. (2012). Tying together research and practice: Using ROPE for successful partnerships in school mental health. *Administration and Policy in Mental Health and Mental Health Services Research, 39*, 238–247.

Stewart-Brown, S. L. (2006). *What is the evidence on school health promotion in improving health or preventing disease and, specifically what is the effectiveness of the health promoting schools approach*. Copenhagen: WHO Regional Office for Europe's Health Evidence Network (HEN), Health Evidence Network report.

Teitel, L. (2009). Improving teaching and learning through instructional rounds. *Harvard Education Letter, 25*(3), 1–3.

Waddell, C., Offord, D. R., Shepherd, C. A., Hua, J. M., & McEwan, K. (2002). Child psychiatric epidemiology and Canadian public policy-making: The state of the science and the art of the possible. *Canadian Journal of Psychiatry, 47*, 825–832.

Weare, K. (2015). *What works in promoting social and emotional well-being and responding to mental health problems in schools? Advice for schools and framework document*, National Children's Bureau, Partnership for Well-Being and Mental Health in Schools, United Kingdom. Retrieved from http://www.ncb.org.uk/media/1197143/ncb_framework_for_promoting_well-being_and_responding_to_mental_health_in_schools.pdf

Weist, M. D., Sander, M. A., Walrath, C., Link, B., Nabors, L., Adelsheim, S., … Carrillo, K. (2005). Developing principles for best practice in expanded school mental health. *Journal of Youth and Adolescence, 34*, 7–13.

Weist, M. D., Lever, N. A., Bradshaw, C. P., & Sarno Owens, J. (2014). *Handbook of school mental health: Research, training, practice, and policy* (2nd ed.). New York, NY: Springer.

Weisz, J. R., Sandler, I. N., Durlak, J. A., & Anton, B. S. (2005). Promoting and Protecting Youth Mental Health Through Evidence-Based Prevention and Treatment. *American Psychologist, 60*, 628–648.

Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating communities of practice: A guide to managing knowledge*. Boston, MA: Harvard Business School Press.

World Health Organization (2005). *Promoting mental health: Concepts, emerging evidence, practice*. A report of the World Health Organization in collaboration with Victorian Health Promotion Foundation and Melbourne University. Retrieved on July 15, 2015 from http://apps.who.int/iris/bitstream/10665/43286/1/9241562943_eng.pdf

World Health Organization (2013). The case for investing in public health. Oslo, Norway. Retrieved on July 20 from http://www.euro.who.int/__data/assets/pdf_file/0006/188583/Pres-Jo-Nurse,-The-Case-for-Investing-in-Public-Health.pdf