Purpose

The purpose of this evidence brief is to outline the available evidence on specific mental health promotion interventions for school-aged children and youth. Although there are a range of school based mental health promotion interventions, social emotional learning (SEL) programs have been selected as priority areas for the purposes of this evidence brief*. The social, emotional and behavioural, outcomes of universal SEL interventions are presented, as well as the components of effective programming, as outlined in the literature.

The evidence presented in this brief can be used to inform policy and practice decisions, to help promote mental health for school-aged children and youth in the province, in support of Phase Two of Ontario’s Mental Health and Addictions Strategy.

Main Messages

- Schools have become a prime setting to deliver mental health promotion programs at all grade levels.
- School based mental health promotion interventions help students develop the resources needed to thrive and prevent future behavioural and emotional problems from developing.
- Social emotional learning (SEL) programs are one category of mental health promotion interventions that foster the core competencies and skills to help children and adolescents manage emotions, relationships, and conflict.
- Outcomes of SEL programs include significantly improved social and emotional skills, self-esteem, academic performance, resilience and coping skills, and social development. Students also demonstrate significantly reduced internalizing (e.g. emotional distress, depression, anxiety) and externalizing (e.g. aggression, violence, bullying) behaviours.
- Developing specific skills, including hope, resilience, coping, conflict resolution and mindfulness, have also shown to improve social and emotion outcomes in students.
- Components of effective SEL programs include using a whole school approach, SAFE (sequenced, active, focused, and explicit) components, interactive training methods, involvement of parents, and a focus on skill development. Programs delivered across all school levels have shown to be effective, though it is inconclusive whether longer programs are more beneficial than shorter programs. Teachers also appear to be effective program deliverers.

*At the outset of this project, mental health awareness was also identified as a potential area for review. However, due to the positive focus on mental health, and the emphasis on self-awareness, mental health awareness programs can be considered part of social emotional learning programs. As such, there was not enough research on mental health awareness to delineate it from social emotional learning.
Background
As 70% of mental health problems begin in childhood and adolescence (Government of Canada, 2006), mental health promotion efforts are most effective when they occur early in a person’s life (Sarcassani et al., 2015). Over the past two decades, schools have been active in promoting the mental health of students in an effort to prevent future problems from developing and help students reach their full potential (Sklad et al., 2012; O’Mara & Lind, 2013). Schools are an ideal location for mental health promotion activities as they capitalize on children being a captive audience, and can be the turning point for many young people who have little support (Chilton, Pearson & Anderson, 2015; O’Mara & Lind, 2013; Weare & Nind, 2011).

School-based programs that foster resilience, character strengths, and empathy provide students with the resources they need to thrive, while allowing them to cope with stress and adverse conditions (Weare & Nind, 2011; Waters, 2011). This is important, as establishing positive emotional health and well-being in childhood and adolescence has implications for young people’s educational success and social development (Blank et al., 2010; Kidger et al., 2012). It can also help reduce the risk of negative socioeconomic outcomes, emotional/behavioural problems, suicide and mental illnesses later in life (Blank et al., 2010; Kidger et al., 2012).

Social Emotional Learning
One type of school-based mental health promotion intervention is called social emotional learning. Social emotional learning (SEL) is “the process of acquiring core competencies to recognise and manage emotions, set and achieve positive goals, appreciate the perspectives of others, establish and maintain positive relationships, make responsible decisions, and handle interpersonal situations constructively” (Elias et al., 1997). SEL programs help children of all ages master age-appropriate social and emotional skills through a variety of approaches (Guyn Cooper Research Associates, 2013).

Common social emotional skills taught in schools include:

- Self-esteem, self-confidence
- Empathy
- Resilience
- Emotional regulation, emotional literacy
- Conflict resolution
- Problem solving
- Coping and stress management
- Social awareness
There is considerable variety among SEL programs’ focus, intervention design, composition and content (Sklad et al., 2012). While some programs focus on reducing problem behaviours, through teaching refusal skills, others focus on enhancing social emotional competencies more generally, by increasing students’ positive self-concept or self-esteem (Clarke et al., 2016; Diekstra & Gravesteijn, 2008; Sklad et al., 2012). Further, while some programs mainly exist within classroom curricula, others involve a whole school approach where activities occur outside the classroom with the involvement of parents and/or the community (Sklad et al., 2012). For the purposes of this review, only articles that included competency enhancement programs were selected for comparison. Interventions included both classroom based programs and whole school approaches.

**Universal, selective, and targeted interventions**

SEL interventions can be further grouped into three categories based on the target audience:

- Universal
- Selective or
- Indicated/targeted

Universal programs target all children, regardless of whether or not they are displaying behavioural or emotional problems (O’Mara & Lind, 2013). Universal approaches also take a positive view of mental health, which focus on building the skills and competencies needed to experience well-being and prevent future problems from occurring (Higgins & O’Sullivan, 2015).

Selective interventions target children and youth who may be ‘at risk’ for developing mental health problems, whereas targeted or indicated interventions focus on children or youth who are already displaying signs of mental health problems or who have been diagnosed with mild to moderate mental illness (Higgins & O’Sullivan, 2015; Stockings et al., 2015).

The focus of this evidence brief is on universal interventions, which can be delivered school-wide or within a specific grade or classroom setting.

**Context**

Several jurisdictions, including the US, UK, Australia and Canada, have seen increasing policy support in recent years for mental health promotion in schools (Kidger et al., 2012). Building school based mental health capacity for child and youth is a priority area within *Open Minds, Healthy Minds*, Ontario’s comprehensive mental health and addiction strategy (Government of Ontario, 2011). The first phase of the strategy saw many successes in the area of school mental health, including the development of School Mental Health ASSIST (SMH ASSIST). SMH ASSIST is a provincial implementation team dedicated to providing leadership, resources and coaching support for schools (SMH ASSIST, 2016). With a positive focus on mental health, School Mental Health ASSIST encourages mental health promotion activities within schools to ensure children and youth’s well-being (SMH ASSIST, 2016).
The following evidence brief will contribute to this system level work by outlining the available evidence on universal SEL interventions for school aged children (ages 4-19) across multiple jurisdictions. The social, emotional and behavioural outcomes of SEL programs are presented, as well as the components of effective programming. Together, these two aspects can help support evidence-informed decision making in order to improve the mental health of young Ontarians.

**Methodology**

To guide the development of this evidence brief, the team established a research question, search strategy and inclusion/exclusion criteria. The research question was: “What are the outcomes and components of effective social and emotional learning programs in schools?” Due to limited time, only review level data was considered, which included systematic reviews, integrative reviews, meta-analysis and reviews of reviews. Only reviews that were 10 years or less were included in the search. Even considering these parameters, there was a considerable amount of research evidence for SEL in schools. This demonstrates the interest and commitment of researchers, educators, policymakers and the public in promoting the mental health of children and adolescents.

Key search terms included at least one of the following words: *mental health, mental health promotion, social emotional learning, social-emotional learning, social and emotional learning, positive mental health, coping skills, self-esteem, resilience, problem solving, empathy, mindfulness, well-being, social learning/literacy/intelligence/awareness, emotional intelligence/learning/literacy, mental health program, positive emotions, relationship skills building, violence prev*, mentoring, life skills, character education, self-awareness, self-management, responsible decision making, or stigma reduc*. These terms were combined with the key words: school* and student*.

Working with Library Services, one researcher conducted a search using four databases, PsycINFO, ERIC Health Evidence and Cochrane, and also searched Google Scholar for grey literature articles that may have been missed. The inclusion criteria was:

- universal programs – articles could include some targeted programs, but not solely
- mental health promotion programs with a positive/competence enhancement focus – could include papers that have components of problem prevention/reduction, but not solely
- focus was on an intervention or program (could include whole school approaches e.g. Healthy Schools Framework)
- systematic reviews, meta-analysis, reviews of reviews, integrative reviews, grey literature reviews
- Elementary, middle or high school setting
- 2006 – present
The exclusion criteria was:

- after school or preschool programs articles focused on treatment services
- programs solely focused on problem prevention (e.g. reducing bullying, aggression)
- programs to address/reduce substance use (e.g. alcohol, drugs)
- targeted/indicated programs
- programs for specific populations (e.g. autistic children, refugee youth)
- papers not in English or in developing countries

The Evidence

As noted above, there was a wide range of interventions included in the evidence gathered on SEL programs. While a few articles isolate a specific program or approach (Kidger et al., 2012; Higgins & O’Sullivan, 2015), all others combined them, even grouping competence enhancement focused and problem prevention interventions together. As it would be difficult to tease these apart, this section synthesizes the evidence for all SEL programs found in this review, in terms of their demonstrated outcomes and components. The components are the characteristics of effective programming that have been identified by authors in the studies. This description will provide the evidence base for SEL programs in schools, to aid in decision making and next steps.

Outcomes

Based on the articles reviewed, it is clear that SEL programs are beneficial for school-aged children in a number of ways. These outcomes can be grouped into two main categories: (1) those associated with SEL programs in general, and (2) those associated with specific SEL skills.

For the most part, review level data does not distinguish the specific skills associated with specific outcomes. Even systematic reviews of interventions targeted to specific outcomes, such as the systematic review by Kragg et al (2006) on stress management programs, the interventions included use a range of approaches to achieve their intended benefit (e.g. positive youth development, empathy or social skills training). There are however, some articles that do comment on the effectiveness of specific skills or on programs that all work on developing the same skill set (e.g. mindfulness). Where possible, these skills are noted below with the associated outcomes, otherwise outcomes of SEL programs are grouped together.
General SEL Outcomes
Participation in school-based SEL programs leads to positive social, emotional and behavioural outcomes including statistically and/or practically significantly:

- Improved social and emotional skills and competencies of students (Weare & Nind, 2011; Diekstra & Gravesteijn, 2008; Durlak et al., 2011; Sklad, Dieskstra, DeRitter, & Ben, 2012; Sarcassani et al., 2015; Payton et al., 2008; Clarke et al., 2015; Langer et al., 2015; Zenner, Hermleben-Kurz, Walac, 2014; Felver et al., 2015), which in some cases has led to a 23% gain in skills, or a 7 standard deviation increase, meaning that SEL participants had better SEL skills than 76% of other students (Sklad et al., 2012).

Social
- Improved positive social development and behaviours (Durlak et al., 2011; Diekstra & Gravesteijn, 2008; Kragg et al., 2006; Payton et al., 2008; Skald et al., 2012), including improved ability to communicate with others and handle interpersonal conflict effectively (Diekstra & Gravesteijn, 2008).
- Enhanced attitudes towards self, school and others (Payton et al., 2008)
- Improved family relations (Clarke et al., 2015).

Emotional
- Improved ability to recognize and manage emotions (Durlak et al., 2011; Diekstra & Gravesteijn, 2008).
- Improved self-esteem and self-confidence (Weare & Nind, 2011; Sklad et al., 2012)
- Enhanced coping skills (Kragg et al., 2006; Manion, Short & Ferguson, 2013) or resilience (Clarke et al., 2015; Stewart & Wang, 2012)
- Improved wellbeing (Manion, Short & Ferguson, 2013; Sarcasanni et al., 2015; Waters, 2011)
- Reduced internalizing problems and disorders, including emotional distress, stress, anxiety, depression, suicide (Diekstra & Gravesteijn, 2008; Weare & Nind, 2011; Durlak et al., 2011; Payton et al., 2008; Kragg, Kok, Hosman & Abu-Saad, 2006; Durlak et al., 2011; Felver et al., 2015; Zenner, Hermleben-Kurz, Walac, 2014; Langer et al., 2015).

Behavioural
- Improved school attitudes and behaviour (Diekstra & Gravesteijn, 2008; Weare & Nind, 2011), and academic performance and achievement (Clare et al., 2015; Durlak et al., 2011; Diekstra & Gravesteijn, 2008; Waters, 2011; Sarcassani et al., 2015; Payton et al., 2008; Sklad et al., 2012; Weare & Nind, 2011), which in one study led to an 11 percentile gain in academic performance (Durlak et al., 2011).
- Reduced conduct problems/externalizing behaviours, including bullying, aggression, violence, conflict and anger (Clarke et al., 2015; Durlak et al., 2011; Payton et al., 2008; Weare & Nind, 2011).
What is especially encouraging is that many of these outcomes remain significant at follow-up time periods of between 6 to 24 months later (Diekstra & Gravesteijn, 2008; Durlak et al., 2011; Sklad et al., 2012; Waters, 2011; Higgins & O’Sullivan, 2015; Sarcassani et al., 2015; Payton et al., 2008). Some studies have also found that prevention of antisocial behaviour (Sklad et al., 2012) and academic performance (Payton et al., 2008) showed a ‘sleeper effect’, meaning scores increased at follow up rather than falling.

Specific Skills Outcomes

Though much of the literature reports on social-emotional outcomes in general terms, most often grouping various interventions together, some studies provide evidence for specific skill based interventions. Some of these skills and associated outcomes include:

- **Hope** – students experience higher life satisfaction a year and 18 months later, while also showing significantly improved levels of hope, self-worth and hardiness, and significant reductions in anxiety and depression (Waters, 2011).

- **Resilience** – students experience improved levels of social competence, happiness, sense of connectedness, and reduced psychosomatic complaints, and negative emotions (Stewart & Wang, 2012). Resiliency programs have also been shown to reduce distress, improve wellbeing and promote learning among students (Waters, 2011).

- **Coping** – students show significant improvement on self-reported measures of anxiety compared with control groups. Effects were maintained at 4, 6, 12 and 24 months later (Higgins & O’Sullivan, 2015).

- **Conflict resolution** – programs are successful in promoting student’s pro-social behaviours, while the use of peer mediators may be effective for longer term outcomes (Blank et al., 2010).

- **Mindfulness** – programs are successful in reducing behavioural problems (e.g. anxiety and depression), as well as increasing cognitive performance and prosocial psychosocial attributes (e.g. emotional regulation, social-emotional competence and coping) (Felver et al., 2015; Zenner, Hermleben-Kurz, Walac, 2014; Langer et al., 2015).

Of note, one article commented on the harmful effects of carrying out peer based work with children who have violent or bullying behaviour, as it leads to more bullying and victimization (Weare & Nind, 2011).

High Risk Populations

There is some evidence to suggest that the potential benefits of SEL programs are greater for high risk populations, including students with low socioeconomic status (Clarke et al., 2015; Diekstra & Gravesteijn, 2008; Weare & Nind, 2011). This may be due to the fact that children with existing problems or higher needs
have more room to improve than other children (Diekstra & Gravesteijn, 2008; Weare & Nind, 2011). Further research is needed to determine the effectiveness of SEL programs on specific populations, including racialized and refugee populations, First Nations, Inuit and Metis populations, LGBTQ populations and other marginalized groups.

The large amount of evidence on school-based SEL programs is clear, SEL programs produce statistically and practically significant outcomes for children and youth. These outcomes include:

- social aspects such as increased interpersonal skills and attitudes towards self and others;
- emotional aspects such as reduced internalizing problems and enhanced ability to manage emotions; and
- behavioural aspects including enhanced school performance and reduced externalizing problems.

Teaching students specific skills such as hope, resilience, coping, conflict resolution and mindfulness also produce positive outcomes. SEL programs may also be more effective for high risk populations, though further research is needed to determine the effects of SEL programs on specific marginalized populations.

**Components of Effective Programs**

To determine how SEL programs produce the successful outcomes noted above, the team reviewed the available literature to determine the components of effective programming. Although most articles did not describe specific program components of the interventions included in their reviews, some did draw conclusions about which components or implementation variables led to more effective outcomes. A summary of these components is presented below.

Determining which skills, methods or program components lead to successful outcomes would require an in-depth look at individual studies to determine the composition of each program, and was beyond the scope of this evidence brief.

1. **Whole school approach** – Embedding SEL programs into the whole school environment, using multi-component approaches that target school climate and culture, teacher education, and school policies are important components of effective programming (Blank et al., 2010; O'Mara & Lind, 2013; Weare & Nind, 2011; Waters, 2011; Diekstra & Gravesteijn, 2008). Some studies also found that incorporating skills training into the general classroom curriculum (Weare & Nind, 2011), or extending practice beyond the classroom (O'Mara & Lind, 2013) produce more significant and longer term effects. However, two articles did not find that multi-component, whole school approaches were more effective than classroom only approaches (Durlak et al., 2011; Payton et al., 2008) and in one case there was weak evidence that whole school approaches were effective at all (Kidger et al., 2012). Both concluded that this may have been due to the greater implementation challenges experienced in these cases, which may have impacted outcomes.
2. **SAFE Components** – Programs that incorporate the following components lead to more significant outcomes and effect sizes than programs that do not (Durlak et al., 2011; Sklad et al., 2012; Sarcassani et al., 2015; Payton et al., 2008):
   a. Sequenced – activities in the program are connected and coordinated
   b. Active – active forms of learning are used to help students learn skills
   c. Focused – at least one component in the program is dedicated to developing skills
   d. Explicit – program targets specific SEL skills instead of skills or development more generally (Durlak et al., 2011)

3. **Focus on skills** – Effective interventions focus on teaching students SEL skills, including more general SEL skills such as social awareness and emotional literacy, and skills focused on preventing problems, such as coping, stress management and drug refusal skills (Clarke et al., 2015; Weare & Nind, 2011; Diekstra & Gravesteijn, 2008; O’Mara & Lind, 2013). There is also some evidence to suggest that empowering approaches that focus on positive skill enhancement and mental health promotion, are more effective than those focused on preventing mental illness (O’Mara & Lind, 2013; Clarke et al., 2015).

4. **Involvement of parents** – There is some evidence that the involvement of parents is a key component of effective SEL programming (Blank et al., 2010; O’Mara & Lind, 2013; Weare & Nind, 2011). Specific positive outcomes of parental involvement include increased effectiveness of pro-social youth development and interventions targeting stress and coping (Weare & Nind, 2011), and reduced bullying and disruptive behaviour (Blank et al., 2010).

5. **Interactive teaching methods** – More effective interventions use highly interactive teaching methods, such as role play, games, simulations and small group work (Clarke et al., 2015; Diekstra & Gravesteijn, 2008; Weare & Nind, 2011). Information only or didactic approaches are not nearly as effective (Weare & Nind, 2011).

6. **Teacher delivered** – Although there is some evidence to suggest that SEL programs delivered by teachers are more effective than those delivered by specialists (Durlak et al., 2011), most of the evidence finds that teachers are equally effective as others in delivering programs, especially when it comes to sustaining the program over time (Diekstra & Gravesteijn, 2008; Payton et al., 2008; Sklad et al., 2012; Sarcassani et al., 2015; Waters, 2011; Weare & Nind, 2011). These findings suggest that SEL programs can be incorporated into the regular classroom setting and do not require external resources to implement them (Durlak et al., 2011; Sarcassani et al., 2015).

7. **Program length** – There is some evidence to suggest that programs are more effective if implemented between 9 months to 1 year (Sklad et al., 2012; Weare & Nind, 2011). However, other articles conclude that programs between 3-6 months (Diekstra & Gravesteijn, 2008), or over 1 year are more effective (O’Mara & Lind, 2013; Manion, Short & Ferguson, 2013).
8. All ages – SEL programs are effective for all ages and educational levels (primary, middle and high school) (Diekstra & Gravesteijn, 2008; Durlak et al., 2011; Sarcassani et al., 2015; Weare & Nind, 2011), though there is some evidence to suggest that programs aimed at primary school students are particularly effective (Sklad et al., 2012; Weare & Nind, 2011).

Across the literature, and as outlined above, several components of effective SEL programs were frequently mentioned. These include using a whole school approach, SAFE (sequenced, active, focused, and explicit) components, interactive training methods, involvement of parents, and a focus on skill development. Programs delivered across all school levels have shown to be effective, though it is inconclusive whether longer programs are more beneficial than shorter programs. Teachers also appear to be effective program deliverers. These components will be helpful when determining which SEL programs are best suited for implementation in Ontario schools, and will aid in this evidence-informed process.

Limitations
There are several limitations to this review, most of which exist due to the scope of the research question. Among the 19 studies identified in this review, there was a wide range of SEL programs including positive youth development, coping and stress management, assertiveness training, empathy or resilience training, among others. Several authors have pointed out the difficulties in drawing conclusions or making direct comparisons between these programs given the considerable variability among intervention characteristics, target age group, program duration, assessment tools and measures (Sklad et al., 2012; Sarcassini et al., 2015).

Additionally, while some articles reviewed more than 50 systematic reviews (Weare & Nind, 2011), others base their findings on far fewer primary studies (Stewart & Wang, 2012), making them arguably less reliable in their findings. This is important to keep in mind when generalizing the results to a broader population, and making conclusions about the effectiveness of interventions. Finally, due to time constraints, the scope of this evidence brief was limited to reviews that included interventions with a competence enhancement focus, and excluded those focused on preventing problem behaviours (e.g. bullying). Including these SEL programs may have resulted in the identification of different components or conclusions.

Conclusion
Over the past two decades, schools have begun teaching social and emotional skills to students in an effort to promote positive mental health and help students reach their full potential (Sklad et al., 2012; O’Mara & Lind, 2013). A large amount of evidence exists on the effectiveness of school-based SEL programs, which demonstrates the positive outcomes that these interventions produce. These outcomes include significantly improved SEL competencies, social development, emotional regulation, coping skills, resilience, and school performance. Students in SEL programs also demonstrate significantly reduced internalizing (e.g. stress, depression, anxiety) and externalizing behaviours (e.g. violence, bullying).
Though a range of school-based SEL programs exist, both in terms of composition and content, several components have been associated with effective programming. Using a whole school approach, SAFE components, involving parents, using interactive training methods, and focusing on skills development have all been shown to produce more effective outcomes than programs that do not include these components. Having teachers implement SEL programs appears to be as effective as those led by specialty trained staff, which demonstrates that SEL programs can be effectively incorporated into the regular classroom setting. SEL programs have also shown to be effective for all school levels, though starting early does seem to be a promising approach. While there is some evidence to suggest that longer programs are more effective than shorter programs, it is difficult to draw conclusions based on contradictory findings.

This evidence brief has summarized the outcomes and components of effective school-based SEL programs. As the province moves forward with determining which SEL programs they will implement in Ontario schools, this brief can serve as a starting point to determine which programs can have the greatest impact on the mental health of children and youth in Ontario.
References


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