1. The issue

Over the past 20 years there has been a growing interest in child and youth developmental outcomes; that is, the particular outcomes achieved during childhood and adolescence that are believed to be instrumental to success, health, and happiness in adulthood. A comprehensive discussion of the literature on child and adolescent development is beyond the scope of this discussion. In brief, there is general consensus about the primary pathways of development and the critical factors and conditions that foster or inhibit the achievement of important outcomes, abilities, and personal characteristics at different stages of life, although there are distinctions among the models.

Advances in prevention science have bolstered interest in developmental outcomes. Technological and other improvements in brain research over the last decade have confirmed many early speculations and have led to new insights about the relationships between exposure to risk and protective factors and physical brain development from the prenatal period to early adulthood, and between physical brain development and developmental outcomes over the entire life course. New studies documenting and explaining how this works are legion. Summary information is available from the Harvard Center on the Developing Child, http://developingchild.harvard.edu.

However, many children and youth do not achieve the desired developmental outcomes at the appropriate stage of life or, in some cases, at all. For example:

- As measured by the Early Development Instrument (EDI), in 2011 one in four Calgary children was not “ready to learn” in grade 1 on at least one of five dimensions. School readiness is associated with reading proficiency in grade 3,12 and a low level of reading proficiency in grade 3 is associated with a much higher risk of high school dropout.4
- In Canada in 2010, 35 per cent of girls and 27 per cent of boys in grade 6 and 44 per cent of girls and 28 per cent of boys in grade 10 reported high levels of emotional problems, such as depression, sadness, anxiety and sleeping problems.1
- In Canada in 2010, 27 per cent of girls and 30 per cent of boys in grade 6 and 45 per cent of girls and 48 per cent of boys in grade 10, reported high levels of behavioural problems, such as cutting classes, getting into fights, talking back to teachers and making other people do what they want.3
- In 2011, there were an estimated 2,300 children in care in Calgary,6 more than half of whom were Aboriginal.7 Although some children are taken into care because their parents are unable to look after them as a result of illness or incarceration, maltreatment is the most common reason for child welfare intervention.8 Youth who have been in care have poorer life outcomes than those in the general population, including lower rates of high school completion and higher rates of homelessness, incarceration, unemployment and reliance on social assistance.1
- Among students who attended public schools in Calgary, only 72 per cent of students completed high school in 2011 with a diploma, GED, or certificate of achievement in three years; 77 per cent in five years.10 Failure to complete high school is associated with lower earnings and employment levels and is the second-best predictor of incarceration (with the best predictor having been in jail previously); higher education increases labour force participation and earnings, and is associated with multiple measures of good health.11
Positive child and youth development

FIGURE 1: POSITIVE CHILD AND YOUTH DEVELOPMENT OUTCOMES

<table>
<thead>
<tr>
<th>Developmental domain</th>
<th>Desired outcomes in middle childhood (ages 6-11) for successful transition to adolescence</th>
<th>Desired outcomes in adolescence (ages 12-18) for successful transition to early adulthood</th>
<th>Desired outcomes in early adulthood (ages 19-24) for successful transition to adulthood</th>
<th>Desired outcomes in adulthood (≥ age 25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive development</td>
<td>Succeeds at school, engaged and motivated to succeed in school, understands cause and effect; masters language and literacy skills and physical communication skills.</td>
<td>High school completion, commitment to learning, and informed forward-looking strategy; critical thinking skills and use of logic, ability to solve abstract and concrete problems.</td>
<td>Basic and higher order skills, knowledge, habits, values and support systems needed to:</td>
<td>• Economic self-sufficiency.</td>
</tr>
<tr>
<td>Social competence</td>
<td>Makes friends, helps and respects others, copes with challenges, accepts consequences for behaviour.</td>
<td>Clear values, positive inter-personal relationships, pro-social attitudes.</td>
<td>• Enter and succeed at post-secondary studies and/or secure employment with opportunities for advancement.</td>
<td>• Healthy social relationships.</td>
</tr>
<tr>
<td>Emotional wellbeing</td>
<td>Distinguishes right from wrong and acts accordingly, sense of self-worth and belonging, sense of control over fate.</td>
<td>Positive sense of identity based on self-esteem; sense of self-efficacy, sense of purpose; sense of optimism about the future and sense of belonging, self-regulation and restraint, high levels of moral reasoning.</td>
<td>• Participate in community and civic life as voters, volunteers, advocates, decision makers and leaders.</td>
<td>• Healthy family relationships and good parenting skills.</td>
</tr>
<tr>
<td>Physical wellbeing</td>
<td>Optimal health and growth, no significant illness or injuries.</td>
<td>Good physical health, avoidance of risky lifestyle behaviours, no early/unplanned pregnancies parenting.</td>
<td>• Maintain a balanced personal life and be in and/or create strong families and communities.</td>
<td>• Community involvement and contribution and good citizenship.</td>
</tr>
</tbody>
</table>

2020 update

City of Calgary Community Profiles, available at calgary.ca/communities, provide demographic, economic and housing information for each community and comparison data for Calgary as a whole. The statistics below provide updated information on children and youth, in particular.

• Among students who attended public schools in Calgary, 76.4 per cent of students completed high school in 2016 with a diploma, GED or certificate of achievement in three years; and 83.6 per cent completed in five years.12 The three-year high school completion rate overall in Alberta in 2015-16 was 77.9 per cent, and five-year rate was 83.2 per cent.13

• In 2016, the rate of developmental vulnerability in one or more of the Early Childhood Development (ED1) domains among children in Calgary was 28.2 per cent. Of Calgary children, 14 per cent were vulnerable in two or more domains, compared to 12.4 per cent of children across Canada.14 These domains include physical health and wellbeing, social competence, emotional maturity, language and cognitive development, as well as communications skills and general knowledge.

  • In 2019, according to the Survey on Early Learning and Child Care Arrangements,15 50.6 per cent of parents of children up to age five had used daycare, pre-school or a childcare centre arrangement during the previous three months, while 31.9 per cent were cared for by a relative other than a parent. Comparative figures overall for Canada were 51.9 per cent for daycare, preschool, etc. and 25.6 per cent by a relative.

  • The City of Calgary Community Profiles show that in Calgary in 2015, 13 per cent of the population under 18 years of age lived in low income (using the Low Income Measure).16

  • In 2014, in Canada, 9.3 per cent of 15 to 17 year-old youth reported having been bullied online during the previous five years, and about one in five youth aged 15 to 20 experienced cyberstalking, cyberbullying or both.17

• According to the World Health Organization (WHO), in 2015 the teen suicide rate in Canada was the fifth highest in the world.18

• In Canada, suicide is the second leading cause of death for children and youth aged 10 to 19 years.19

• Results from a 2012 national survey (Canadian Community Health Survey – Mental Health) found that seven per cent of youth aged 14 to 24 had experienced depression over the previous year, while six per cent of respondents had suicidal thoughts during the past 12 months.20

• In 2017/18 in Alberta the incarceration rate per 10,000 young persons was 4.32, compared to 5.61 in 2014/15. In 2017/18 the probation rate was 32.85 per 10,000, compared to 43.87 in 2014/15.21

• In 2017/18, out of 16,664 youth admissions to correctional services in Canada, 7,194 identified as Aboriginal22 (numbers not available for Alberta).
2. Risk factors

Key risk factors for poor developmental outcomes

Research shows that the key factors that place a child at risk of poor health and developmental outcomes include:

• Family low income
• Living in a lone-parent family
• Having parents with low levels of education
• Having parents who abuse drugs or alcohol and/or have mental health problems
• Teenage pregnancy
• Negative parenting practices, among others

The more risk factors that a child experiences, the greater the likelihood that he or she will experience problems such as:

• Behavioural and conduct disorders
• Hyperactivity
• Poor school performance
• Emotional problems
• Aggression and delinquency

Such childhood problems are individually and collectively associated with negative outcomes in adolescence, including criminal involvement, poor academic achievement and decreased likelihood of completing school, and young parenthood. These adolescent outcomes are correlated with:

• Employment problems
• Poverty
• Ongoing criminal involvement
• Homelessness
• Health problems including addictions
• Perpetuation of the poor conditions and parenting practices that the young people experienced in childhood

2020 update

Recent publications addressing risk factors for developmental outcomes include:

• Raising Canada report
• Advancing Early Childhood Development: from Science to Scale
• Poverty, Stress, and Brain Development: New Directions for Prevention and Intervention
• Stress and adolescent wellbeing: the need for an interdisciplinary framework

3. What works to prevent problems and improve developmental outcomes

The most effective ways to prevent poor developmental outcomes are to increase the income levels of poor families and to improve parenting practices and family functioning in fragile families. These issues and ways to address them are discussed in detail in Research Brief 2, Positive parenting and family functioning.

This brief examines preventive interventions that focus exclusively or primarily on the child. Many of the problems children and adolescents face undermine their positive development and result in negative outcomes throughout their life course. Prevention programs that are carefully designed and implemented have been shown to be effective.

A review of reviews completed by six leading researchers in child and youth programming in 2003 identified nine characteristics of programs for children and youth that have been demonstrated to be effective in preventing the onset or intensity of problems in adolescence. These principles do not appear to have been revised by the authors or other researchers over the past decade and, in fact, this review has been cited in 523 subsequent publications.

The nine characteristics of effective prevention programming for children and youth

1. Programs are theory-driven, meaning that they have a theoretical justification, are based on accurate information, and are supported by empirical research.

2. Programs are comprehensive, meaning that they (i) use multiple strategies to increase both knowledge and skills to address the salient precursors or mediators of the target problem, and (ii) engage the systems required to prevent the problem (e.g. school, family, community, peer group).

3. Programs use varied teaching methods that include active, skill-based learning through interactive instruction and active, hands-on experiences to learn the required skills (e.g. resistance skills, social skills, language skills).

4. A sufficient “dose” (quantity and duration) of programming is provided, with the general rule that, the greater the needs or challenges faced by participants, the greater the dosage of the program or intervention. Effective interventions may include some type of follow-up or booster sessions.

5. Programs are appropriately timed, meaning that they are initiated early enough to have an impact on the development of the problem behaviour and align with the developmental needs of the participants.

6. Programs provide exposure to adults and peers in ways that promote strong relationships and support positive outcomes.

7. Programs are socio-culturally relevant, meaning that they are tailored to the cultural needs of the participants and make efforts to include the target group in program planning and implementation.

8. Programs track and measure outcomes, which requires clear goals and objectives and the measurement of results relative to goals.

9. Programs employ well-trained staff who can properly implement and deliver the program.
3.1 Early childhood education and programming

A full discussion of early childhood education and programming is beyond the scope of this paper and funding for such programs is not within the legal mandate of FCSS. However, the merits of such programming must be noted within a broader investigation of the best ways to prevent an array of problems in childhood and adolescence and beyond and to promote positive child and youth development.

The key objective of early childhood programs is to foster social and cognitive development, and most programs focus on at-risk children. Recent advances in research on brain development during the first five years of life and, especially, from birth to age three, have further sharpened interest in early childhood programming, particularly programs that focus on “school readiness.” This is because there is considerable evidence that early childhood education (ECE) programs can improve both cognitive development and social and emotional skills. For some high-quality, very intensive programs, greatly improve long-term academic and life outcomes. Evidence-based programs include well-known programs such as the Perry Preschool Project, which dramatically improved outcomes over participants’ life course up to age 40 (e.g. high school dropout, teen and unplanned pregnancy), educational attainment, employment, income, drug use, and criminal involvement.

These outcomes stemmed not from changes in IQ, but from changes in social and emotional development and behaviours. For boys, behavioural changes at ages three and four explained up to 74 per cent of the treatment effect. For girls, lifetime outcomes stemmed from a combination of developmental improvements in childhood. In Canada, few evidence-based early childhood programs exist, but evaluation of the Promoting Alternative Thinking Patterns (PATHS) Preschool — although it has not been evaluated over many years like the Perry Preschool — reported higher social and emotional skills among participants relative to the control group.

The research has yet to sort out the ideal combination of program elements to maximize effectiveness. However, at a high level, it is reasonably clear that effective early childhood programs feature two critical components: (i) effective curriculum supported by effective early childhood educators, and (ii) a positive classroom environment that increases children’s extrinsic motivation to learn. There is strong evidence that children who attend low-quality programs are no better off than those who do not attend any program.

The optimal “dose” (intensity and duration) of early childhood programming has not been conclusively determined. Based on some of the Head Start studies and other research, it is likely that programs less than one year in duration are insufficient to affect developmental outcomes, and that two years of preschool has a cumulatively greater impact on most outcomes than one year.

However, a recent meta-analysis found no relationship between developmental outcomes and length of program participation.

Interestingly, this meta-evaluation also found that programs providing additional services to children and their families (e.g., health screening, nutrition, educational materials for home use) actually had a negative effect on cognitive development. These findings are inconsistent with other research. The researchers speculate that this outcome may have been confounded by other factors: (i) children in these programs had fewer hours of participation over longer time periods, for unknown reasons; and (ii) children in these programs received less direct instruction and class sizes were larger. The researchers further speculate that providing direct services may compete with instructional time, thereby diluting the intensity of programming.

Recent research also indicates that comprehensive, high-quality, centre-based early childhood programming followed by small classes in grades 1 to 3 is an effective approach for preventing an array of problems throughout childhood, adolescence, and adulthood among at-risk children. The continuation of programming to grade 3 helps to prevent the “fade out” of program effects over time, which has occurred for some children in some early childhood programs, such as Head Start.

3.2 Developmental programming

Research shows that sustained participation in high-quality, structured developmental programming can provide supervision and help children and youth to stay out of trouble and achieve age-appropriate developmental milestones. The benefits of participation in developmental programming may be greatest for young people who face challenges in life, such as physical or intellectual disabilities, dysfunctional families or negative environments, language or cultural barriers, and living in chronic low income, and for young people who feel excluded from the “mainstream” for any number of reasons. For vulnerable children and youth, participation in developmental programming can afford protective or “buffering” factors that can offset multiple risk factors.

The most common types of programs to improve child and youth development include:

- Mentoring programs
- After-school programs
- Social emotional learning programs
3.2.1 Mentoring programs

Mentoring is an evolving field that uses many new approaches, such as group mentoring and on-line mentoring, but the most common types of mentoring programs are one-on-one community-based mentoring, where mentors meet with mentees in community settings after school, in the evening, or on the weekend. Recently, school-based mentoring, where mentors and mentees meet at the mentees’ schools at lunch time, after school or, in some programs, during school hours, has become more common. Some mentoring programs focus explicitly on providing academic supports or preventing specific problems; others have broad child and youth development goals.

As noted by many researchers, despite the proliferation of mentoring programs in recent years, the evidence base and, specifically, what sorts of programs work best, for whom, and how, is still in development. Research support for mentoring as a positive youth development strategy is growing, however. DuBois and colleagues’ thorough and comprehensive 2011 meta-analysis of recent research concluded that mentoring can both prevent and redress developmental problems from early childhood to adolescence, depending on both child and program characteristics.

The most studied developmental outcomes affected by mentoring programs are attitude and motivation, social and interpersonal skills, emotional wellbeing, conduct and behaviour, and academic outcomes (attendance, grades, achievement). Although the developmental changes are usually modest, they are comparable to those resulting from some school-based bullying intervention and violence prevention programs, programs targeting aspects of emotional wellbeing (e.g., anxiety reduction, self-esteem improvement), tutoring programs, and other youth development interventions. The evidence also indicates that many types of mentoring programs — traditional adult-child matches, school-based programs, cross-age peer mentoring, group mentoring — can be effective when delivered in accordance with best practices.

DuBois and colleagues concluded that, at a high level, mentoring program effectiveness was greatest when:

- There was a relatively high proportion of male youth participants.
- Participating youth had a background of relatively high individual risk (e.g., experience of abuse or neglect) or environmental risk (e.g., high crime neighbourhood).
- The program included an advocacy role for mentors.
- The program included a teaching/information provision role for mentors.
- Mentors and youth were matched based on similarity of interests.
- The program did not match mentors and youth based on similarity in race/ethnicity.

It should be noted that, in some cases, DuBois and colleagues’ findings differ from those in previous and subsequent research, and that a wide range of factors, including but not limited to the quality of the mentor-mentee relationship and mentees’ personal characteristics, can greatly influence the outcomes of participation.

For example:

- Consistent with DuBois’ findings, a recent American study of a mentoring program matching girls in junior high school with women college students reported stronger outcomes for cross-race than same-race pairs. However, qualitative research on Aboriginal mentoring programs indicates that Aboriginal youth may be best served by Aboriginal mentors. Likewise, while youth mentoring may be a positive intervention for immigrant and refugee youth, cultural differences need to be taken into account. Immigrants or children of immigrants may be better “able to relate to the experiences of immigrant youth and serve as positive bicultural role models,” although “there may also be adults from the majority culture who display a sensitivity to specific issues facing immigrants, a willingness to engage in mutual learning with youth from backgrounds that differ from their own, and the ability to act as cultural interpreters.” That being said, mainstream mentorship programs may require cultural adjustments to meet the needs of immigrant youth mentees.

- A recent evaluation of a Big Brothers Big Sisters program in the U.S. found that improvements in academic performance and social behaviour were greater among youth who had moderately positive relationships with adults and peers than among those who had very positive relationships, and those who had problematic relationships and were considered “vulnerable.” In other words, the program may have “worked best” for youth who were experiencing some challenges, rather than those who experienced no challenges or serious challenges.

- A large and recent Big Brothers Big Sisters study found that, among academically at-risk youth, participants’ academic scores improved if they were mentored during lunch or after school, but did not change or declined if they were pulled out of class to meet with their mentors.

- Evaluations of some school-based mentoring programs have found minimal benefits and even negative outcomes.

- Although Dubois’ meta-analysis found that the positive effects of mentoring extended to programs of less than six months’ duration, there is a considerable body of research indicating that, overall, longer relationships are better. DuBois notes that the important factor may be whether the relationship continues for the full duration of whatever time frame was previously established as an expectation. This is consistent with studies documenting the negative impacts on mentees when mentoring relationships are terminated prematurely.

The common cautions offered by researchers about mentoring programs in general are that few evaluations have followed participants over time to determine whether benefits are sustained. In fact, two highly publicized programs that were believed to be effective were subsequently found to
have no enduring developmental effects.\textsuperscript{59–61} Also, not all youth are equally suited for mentoring: “Mentoring is neither a substitute for professional treatment among youth with serious emotional, behavioural, or academic problems nor a necessary inoculation for problems nor a necessary inoculation for all youth.”\textsuperscript{62} Finally, like others before them, Dubois and colleagues suggest that, in their efforts to expand the reach of their programming, some organizations may not be introducing or adhering to research-supported practices. Rhodes comments: “Research findings tend to be complex and replete with qualifications and nuances that do not always lend themselves easily to advocacy and practice. Yet, if we are to champion this intervention strategy, we must be prepared to grapple with its complexities – even at the risk of learning that commonly deployed programs and practices do not always improve youth outcomes.”\textsuperscript{63}

Yet a 2013 study commissioned by Big Brothers Big Sisters of Canada followed mentored participants over time to determine whether benefits were sustained in four categories of differential life outcomes: employment, philanthropy, life skills and general wellbeing.

Former mentees attribute much of their life successes to Big Brothers Big Sisters in the areas of education, employment, general happiness and wellbeing. The program showed significant causal benefits, along multiple dimensions for participants, and a high social return on investment. For example former mentees showed increased lifetime earnings and a greater propensity to give back to the community (money and service).\textsuperscript{64}

### Additional considerations for children and youth with disabilities

Mentoring programs are also considered to be a positive child and youth development strategy or, more commonly, a social support intervention, for youth with disabilities. Although the academic research base is very limited, a few studies have indicated that young people with physical disabilities can become more independent as a result of mentorship by adults with the same disabilities.\textsuperscript{65} However, students with learning disabilities or impairments are more likely to achieve particular life goals\textsuperscript{66} or improve their quality of life\textsuperscript{67} through mentorship by adults without disabilities. Two older evaluations reported improvements in self-esteem, academic performance, and academic engagement among junior high school students with mild intellectual disabilities;\textsuperscript{68} and improvement in ability to overcome disability-related barriers, self-reliance, and interest in working, going to college, and living in their own homes.\textsuperscript{69} “E-mentoring” has emerged in the research as a powerful vehicle for mentoring youth with disabilities,\textsuperscript{70} but some types of disabilities might preclude use of the internet as a communications tool.

Most of the published research on mentoring for youth with disabilities, as sparse as it is, has focused on the need for mentoring programs to help youth with disabilities transition to post-secondary education or the world of work.\textsuperscript{71} An example of such a program is Disabilities, Opportunities, Internetworking & Technology (DO-IT), a large American e-mentoring program that matches mentors and mentored individuals with similar disabilities.\textsuperscript{72} With the exception of one very small study,\textsuperscript{73} it does not appear that any of the large mentoring programs for youth with disabilities have been evaluated.

A comprehensive publication, Elements of Effective Practice for Mentoring, is available at no cost from MENTOR at \url{https://www.mentoring.org/images/uploads/Final.Elements_Publication_Fourth.pdf}.


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**3.2.2 After-school programs**

Some after-school programs do not seek to improve developmental outcomes. Rather, they exist to provide children and youth with an opportunity to participate in supervised recreational or other non-structured activities while their parents are at work. The primary purpose of such programs is to provide a safe haven for children and an alternative to hanging around in the community or at the mall. The vast majority of the research on recreational programming has focused on sports and/or physical activity programming, which overwhelmingly reveal positive impacts in such areas as physical health, psychological wellbeing, social status and socialization, inter-group relations, and educational attainment.\textsuperscript{74–77}

In addition, highly-structured sports programs built on youth development principles and with specific features have resulted in improved outcomes on an array of development indicators.\textsuperscript{78–80} In his review of the research, Bailey stresses that some positive outcomes of recreational programming may “not necessarily result from participation, per se; the effects are likely to be mediated by the nature of the interactions between students and their teachers, parents, and coaches who work with them. Contexts that emphasize positive experiences, characterized by enjoyment, diversity, and the engagement of all, and that are managed by committed and trained teachers and coaches, and supportive and informed parents, significantly influence the character of these physical activities and increase the likelihood of realizing the potential benefits of participation.”\textsuperscript{78}

That being said, many after-school programs are now required to have a developmental focus. This means they seek to improve participants’ developmental outcomes in one or more areas within one or more of the four domains of child and youth development. The importance of program structure and program intentionality for improving developmental outcomes, discussed further below, cannot be overstated. Research shows that good intentions do not guarantee good outcomes, and unstructured programs can actually promote negative outcomes. In one large study, for example, and consistent with a large body of research on peer influence in adolescence, frequency of participation at a youth centre was associated with a significant increase in antisocial behaviour over time for boys and girls. The researchers...
commented that "activities that lack structure and skill-building aims appear to attract high-risk adolescents and the resulting social environment is conducive to the development of antisocial behaviour."81 In addition to increasing structure in recreational programming, another recommendation arising from this body of research is that programs give consideration to what participants are up to before and after the program, with a view to reducing opportunities for problem behaviour.82 Likewise, a recent review of the effects of 35 after-school programs in the U.S. found that 23 programs produced either a mix of positive and negative outcomes or negative outcomes alone.83 Negative outcomes included conduct problems, such as drug use and drug dealing and being unable to resolve conflicts properly. Analysis of program effects by program characteristics revealed that these negative effects were occurring in large, unstructured programs, especially when program staff responded neutrally to undesirable behaviours. The researchers suggest that, in large, unstructured programs, participants spend a great deal of time socializing, and a group of participants with negative behaviours can engage in "deviancy training," (i.e. reinforcing each other’s bad behaviours).

In addition, some research has reported negative outcomes (problem behaviours, fewer positive peer influences, lower academic achievement) resulting from participation in after-school recreational programs that include sports, although the researchers speculate that this may have been attributable to the participation of high numbers of at-risk youth.84 It was not clear, however, why outcomes worsened for these youth as a result of participation.

One exception to these general findings about unstructured programming was a Boys and Girls Clubs of America (BGCA) study85 that focused on the outcomes of participation in unstructured, drop-in BGCA programs. The study reported mixed outcomes from participation in this type of programming as compared with targeted, structured programming. Younger participants who attended regularly demonstrated good outcomes; older youth who attended regularly demonstrated some negative outcomes (increased acceptance of cheating, decreased enjoyment of and effort in school, increased alcohol use). However, increased attendance mitigated these negative outcomes, suggesting that participation may have afforded some developmental protective factors. The researchers suggest that increasing participation in structured, along with unstructured, programming may have additional benefits for participants, noting that "the motivators of recreation, sport, and friends are essential program strategies necessary to especially engage harder-to-reach adolescent populations."85

**After-school program elements and practices for success**

**Program quality: Intentionality and the SAFE principles**

Research shows that programs must be intentional to be effective. Program “intentionality” means that a program includes specific components intended to bring about one or more particular outcomes and uses an evidence-based skills-training approach to develop particular competencies or attributes associated with those outcomes. For example, a program to improve school performance may be of the highest quality and engage participants over a number of years, but it is unlikely to improve participants’ math or reading ability if it doesn’t include a specific academic component, such as tutoring.

The importance of program intentionality was first identified in the early 2000s in evaluations of programs intended to improve school performance,86 social competence,87 physical health,88 and mental health.89 However, it was not broadly recognized in the after-school community, at least in Canada, until the later part of the decade. This recognition followed the release of a ground-breaking meta-analysis on the effectiveness of programs that sought to improve social competence and/or emotional wellbeing (sometimes referred to as “social and emotional learning” (SEL) programs).90,91 Of the 68 programs included in the analysis, the 41 that were effective were evidence-based and clearly intentional, as their programming reflected what have been coined the “SAFE” principles (sequenced, active, focused, and explicit). The 41 effective programs clearly featured a sequenced, step-by-step set of activities to achieve skill objectives (sequenced); used active, experiential forms of learning to practice new skills or behaviours and receive feedback on their performance (active); focused specific time and attention on skill development (focused); and identified which social or personal skills they intended to improve (explicit). The SAFE programs were associated with significant improvements in self-concept, positive social behaviours, school bonding, school grades, and achievement test scores, and with significant reductions in conduct problems. However, programs that featured only some of the SAFE principles were not effective; all four principles had to be in place to improve social or personal skills.

**Sufficient “dose” of participation**

In all kinds of social programming, “dose” refers to the quantity of time spent in a program. Dose is usually measured in terms of intensity (hours of participation over a period of time) and duration (weeks, months, or years) of participation. We still don’t know for certain what dose of programming is required to effect change. This is probably because many of the comprehensive evaluations of large after-school programs have had trouble collecting reliable attendance and attrition data. The research is clear that:

1. (With one dissenting study)92 occasional participation, even in a high-quality program, is unlikely to be effective.91-97
2. The developmental outcomes of children and youth who participate in high-quality after-school programming four or five days a week are generally better than those of children and youth who regularly spend time with no adult supervision after school.98
3. Intensity of participation might matter more than duration of participation.99

There is also some anecdotal evidence that short-term participation in very intensive after-school programming might improve some specific outcomes (e.g., self-confidence). However, it does not appear that any programs of this type have been thoroughly evaluated.

A general rule of thumb from the research for after-school programs is somewhere between 50 and 100 days of participation100 (or at least 100 hours of programming) over at least one year is required to significantly effect change, but this should not be considered a hard and fast directive. Required dose most likely depends in part...
on the outcomes targeted by the program, participants’ pre-program competencies, and the nature and intensity of the program itself. In addition, most of the after-school evaluations have not taken into account participation in multiple programs or activities, meaning that the collective dose of participation and the collective impact of program components and activities have not been measured. It should also be noted that, in some ways, the participants’ perceptions about the quality of the experience may be as important as the quantity of the experience. For example, research indicates that after-school programs that are demanding and offer challenging, relevant activities are most likely to yield positive outcomes.101

Additional considerations for children and youth with disabilities

A large body of research has identified many barriers to participation of children and youth with all types of disabilities in all kinds of mainstream developmental and recreational programming, including after-school programming. Very briefly, with respect to sports-related programs, in addition to common financial, transportation, language, and cultural barriers, young people with disabilities may be excluded due to programmers’ concerns about liability, program capacity, required program or facility modifications, and lack of knowledge about how to accommodate various types of disabilities. Also parents’ concerns about injury, lack of supports within the program, and negative social experiences102-104 may also result in exclusion.

Promising practices in programming for children and youth with disabilities have been identified for sports and recreation programs and for out-of-school time programs. And yet, inclusive programming has not become standard operation in most child- and youth-serving organizations in the U.S.,105,106 and the same is likely true in Canada.

Promising practices for programs that appear to be directed toward individuals with physical disabilities of all ages have been summarized:

1. Identify or employ a staff member who is responsible for facilitating and coordinating inclusive service delivery.105
2. Ensure physical and programmatic accessibility, meaning that all participants can “approach, enter, and use facilities and services in unimpeded ways.”106
3. Provide adaptive equipment and other accommodations.105
4. Ensure that program marketing materials reflect inclusive practices and welcoming language and include photos of persons with disabilities.105
5. For children and youth, research indicates that support staff are essential in assisting participants with disabilities to acquire social and physical skills and to acquire and use adaptations, providing physical assistance, and promoting successful social interactions with peers.107

Zambo has identified five steps to help adolescents with disabilities to fit into groups:108

1. Conceptualize current groups and networks:
   - Create a socio-netgram, an extended sociogram that shows a student’s groups and their connections.
2. Understand the adolescent’s perspective:
   - Interview the student (privately) with targeted, developmentally appropriate questions.
3. Help the adolescent fit into the group and understand the group and others:
   - Does the student know each group’s mission? If not, set aside some private time and explain the group’s history, how it began, its length in existence, its mission/goals, and members.
   - Does the student know the members in each group? If not, provide time for all group members to talk about themselves, their roles in the group, and how they contribute to the group.
   - Does the student understand the group’s rules, procedures, or norms? If not, explain these to the student in clear, concrete language. Model the rule or procedure and ask the student to describe it, how it looks, and how it feels to oneself and others.
4. Help the adolescent become a contributing group member:
   - Rearrange the environment.
   - The student’s personal goals and group goals should be high enough to be challenging but achievable if the student persists and puts forth effort.
   - Provide feedback about goal attainment that is specific, informative, and focused.
5. Allow the student time to develop an identity:
   - Respect the adolescent’s unique developmental path.

A useful resource entitled A Community for All Children: A Guide to Inclusion for Out-of-School Time from the University of North Carolina and partners is available at no cost from https://www.academia.edu/29583458/A_community_for_ALL_children_A_guide_to_inclusion_for_out-of-school_time
In recent years, the term “social emotional learning” (SEL) has been coined to summarize the process of acquiring age-appropriate competencies in two developmental domains: social competence and emotional wellbeing. Research indicates that various forms of programming and interventions can help young people, especially those in early and middle childhood, to master these competencies and thereby prevent a host of problems throughout life. For example, research shows that lacking emotional self-regulation in childhood can predict a wide range of consequential life outcomes, including income and financial security, occupational prestige, physical and mental health, criminality, and gambling problems, even when family background and other factors are controlled for. (It should be stressed that SEL programs are not a substitute for counselling or therapy for children who are experiencing mental health problems.)

In addition, some SEL programs have been demonstrated to improve cognitive development, as evidenced by academic outcomes. This is because students who can pay attention, persevere with tasks, solve problems, and work well with others generally do better in school than those who do not have these abilities or whose abilities are compromised by stress, anxiety, depression or anger. Advances in neuroscience are clarifying the complex relationships between emotional self-regulation and the brain’s executive functions (e.g., reasoning and memory), and shedding light on how promoting social and emotional competence can facilitate cognitive skills and the development of self-regulation and, ultimately, learning.

A wide range of developmental programs, usually but not necessarily delivered in schools by teachers, have now been coined “SEL programs.” SEL programs fall into three categories — violence prevention, mental health, and character education — with each type of programming targeting one or more core social and emotional competencies. SEL programs can be “universal” (provided to all children through school-wide implementation to promote mental health and prevent emotional or behavioural problems); “selective” (provided to groups of children with similar risk factors to prevent emotional or behavioural problems); or “indicated” (provided to individual children or groups of children experiencing emotional or behavioural problems).

Three large meta-analyses of SEL programs in the U.S. reported the following:

- Analysis of 180 studies of school-based, “universal” SEL programs involving 277,977 students found that programs improved participants’ outcomes in six areas: social-emotional skills in test situations, attitudes toward self and others, social behaviours, conduct, emotional wellbeing, and academic performance.
- Analysis of 80 studies of “indicated” SEL programs for 11,337 children with signs of emotional, social, or behavioural problems found (i) no change with respect to drug use; (ii) significant and sustained improvements in SEL skills, attitudes, social behaviours, conduct and emotional wellbeing; and (iii) significant improvements in academic performance, but these gains were not sustained over time.
- The findings from the analysis of 57 studies of “universal” after-school programs for 34,989 students were mixed, partly due to the variety of programs offered and, also, to differences in the quality and types of studies reviewed. Considering all programs together, the analysis found improvements in self-perceptions, school bonding, social behaviours, conduct, and achievement tests but these changes were either not sustained over time or the participants were not followed longitudinally so longer-term impacts could not be identified. The programs did not influence school achievement, with the exception of those programs that used evidence-based practices.

Most of the evidence-based SEL programs are delivered in schools by trained teachers. This is because effective SEL programs are grounded in developmental psychology and follow a specific curriculum, usually over a period of months or years, with each lesson building upon the learnings of the last. Research indicates that, to be effective, programs must:

1. Be delivered in “safe, caring, participatory and well-managed learning environments,” which generally involves intentional, systematic changes to classroom and school climate, SEL training for teachers, and community and parental involvement.
2. Provide “sequenced, developmentally-appropriate, classroom-based instruction in five major areas of social and emotional competence,” where SEL is infused into the regular school curriculum and continues over several years, with the instructional content in each grade building upon that in the last.

A handful of high-profile SEL programs have been evaluated and, under scrutiny, have failed to deliver on their promises. Those programs that have demonstrated to be effective align with the above criteria. Examples of such programs that are well known in Canada include Promoting Alternative Thinking Strategies (PATHS), 4Rs, The Fourth R, Roots of Empathy, and Lions Quest. While thousands of programs in Canada might be described as SEL programs, few have been empirically evaluated. The Mental Health Commission of Canada has expressed concern that scarce resources – and opportunities to make a difference – might be wasted on short-term SEL programs that have been developed in response to a local need, are not evidence-based, do not include the features for effectiveness, and have not been empirically evaluated. An additional concern is the implementation of evidence-based programs without fidelity to the model, which can mean that the program is not effective any more.

Additional considerations for children and youth with disabilities

Children and youth with physical and/or intellectual disabilities are often socially isolated by peers, adults, and society as a whole, who see them as “less able,” and exclude them from group activities and may be reluctant to befriend them. Research also indicates that children with disabilities (especially non-physical disabilities, such as psychological disorders, developmental delays, intellectual disabilities, ADHD) are at increased risk of being bullied.
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and victimized at school and in the community. A review of the research on discrimination against children and youth with disabilities and how it might be combated is beyond the scope of the current discussion. However, for the purposes of this paper, it is important to recognize that these problems exist and can contribute to poor developmental outcomes for children and youth with disabilities. As for all young people, friendships and a broad range of inter-personal connections are crucial to the positive social, emotional, cognitive, and physical development and wellbeing of children and youth with disabilities.124,125

A large body of research shows that children and youth with intellectual disabilities often have poor social skills and demonstrate behavioural problems, which further contributes to their social isolation.126-129 In addition, children and youth with emotional and behavioural disorders may be more likely than their peers to engage in aggressive and violent behaviours.130 Thousands of studies, many of them using small samples, have been conducted on strategies and programs in a range of settings to improve the social skills of children and youth of all ages and with various types of disabilities, most often autism spectrum disorder. The good news is that a range of interventions have been demonstrated to be effective in improving social skills and behaviours, communication skills, and social connections with peers, and these improvements persist over time.

Overall, social skills training appears to be more effective than other interventions, such as augmentative and alternative communication and stand-alone conversation skills training in improving social and communication skills among youth (aged 12 years and above) across a range of disabilities. The effects of various forms of training on reducing behavioural problems across disability types is less clear.131 Of course, there are many types of disabilities and generic meta-analyses provide limited guidance in determining how to best address the needs of specific groups of children or youth.

For young children with autism or intellectual disability, there is some indication that peer training, where peers serve as conversational partners and provide opportunities to practice skills with feedback, may be more effective than the more common method of having an adult provide social skills instruction to a small group of students.132 Research on effective interventions for older children and youth has been less comprehensive, but a recent meta-analysis indicates that it is also effective for older children and youth with these disabilities. The keys to success appear to be teaching youth how to communicate effectively and providing ongoing support and opportunities to practice newly acquired skills, so that they can learn to generalize the new skills in a variety of situations and with different types of people.132

Social skills training also appears to be effective for youth with emotional and behavioural disorders. A "mega-analysis" of meta-analyses representing 77 high-quality studies on social skills training for youth (ages 11 years and older) identified positive and noticeable effects overall among youth with these disabilities.133 One of the meta-analyses included in this study suggested that, for youth in mid- to late adolescence, programs that used social learning strategies (e.g., modeling, coaching) resulted in larger behavioural changes than operant learning (which stresses positive reinforcement) and cognitive learning (which stresses problem solving and coping skills) programs. The results were somewhat inconclusive, however, partly because most programs use multiple approaches and strategies.133

There is no clear guidance from the research about whether social skills instruction for children and youth with developmental disabilities is more effective in programs or settings that target those with disabilities exclusively or in programs that include children without such disabilities. It appears that most programs that specifically target social skills development for children with developmental disabilities are stand-alone programs, although they sometimes involve peer mentors without disabilities. What works to improve social skills appears to depend in part on the type of developmental disability experienced by participants. For example, the most effective intervention for children with autism appears to be video modeling, which is a one-to-one intervention with individual children.134

The inclusion of children with developmental disabilities in mainstream programming is a human right and is widely advocated as a way of helping children with developmental disabilities to develop friendships and social skills and to become socially integrated in the broader community. The research on the effectiveness of this approach has produced mixed results. Some studies reported improvements in social competence among children with disabilities. Others identified no benefits or negative outcomes, primarily because children with developmental disabilities have difficulty building and maintaining relationships with other children, whether they have disabilities or not, and because children without disabilities are not always accepting of those with developmental disabilities. This leads to social rejection of the children with developmental disabilities.134

Overall, little is known about how children with developmental disabilities form peer relationships and friendships in educational and community environments.135 It is clear, however, that "achieving social integration for children with developmental disabilities involves more than merely providing these children with opportunities to interact with nondisabled peers."136,137
3.3 Treatment for mental health problems

Although funding for mental health treatment is not within the legal mandate of FCSS, the merits of such programming must be noted within a broader investigation of the best ways to prevent an array of problems in childhood, adolescence, and beyond. Without treatment, childhood mental health problems can lead to school failure, substance abuse, violence, suicide, and other serious problems. Half of all lifetime cases of mental illness begin by age 14, although the roots of the illness may begin much earlier.\(^\text{138}\) The United States Substance Abuse and Mental Health Services Administration (SAMHSA) estimates there are over 400 different mental health treatment approaches for children and adolescents. SAMHSA stresses that not all approaches are effective. The Association for Behavioral and Cognitive Therapies and the Society of Clinical Child and Adolescent Psychology has reviewed and summarized the research on evidence-based mental health treatment for children and adolescents. The American Psychological Association has published this online.\(^\text{139}\)

**Brief summary information on effective treatments for the mental health disorders most commonly experienced by children and youth**

**Anxiety problems and disorders**  
Research generally supports Cognitive Behavioral Therapy (CBT) for the treatment of general symptoms of anxiety in both children and adolescents. This treatment can be administered in a variety of different formats, including group CBT with and without parents, each of which has varying levels of research support. Social skills training and exposure treatment can also be effective in treating anxiety.\(^\text{139,140}\)

Individual CBT and individual CBT with medication can be effective in treating obsessive compulsive disorders. Again, some types of CBT appear to be more effective than others.\(^\text{141,142}\)

Research strongly supports trauma-focused CBT for the treatment of post-traumatic stress disorder (PTSD); group CBT can also be effective. There is some research support for a range of other treatments such as child-centred therapy.\(^\text{143,144}\)

**Depression and related disorders**  
For children, research strongly supports group CBT with and without parents for the treatment of depression. Behaviour therapy can also be effective. The effectiveness of family therapy and group psychoeducation with a parent intervention is unknown. For adolescents, group CBT without parents and interpersonal psychotherapy (IPT) are preferred therapies. Group CBT with a parent component, individual CBT, and individual CBT with a parent/family component can also be effective. The effectiveness of other treatments including group interpersonal psychotherapy and family therapy is unknown.\(^\text{145,146}\)

**Attention Deficit/Hyperactivity Disorder (ADHD)**  
Research strongly supports three types of behaviour therapy for the treatment of ADHD: Behavioural Parent Training (BPT), Behavioural Classroom Management (BCM), and Behavioural Peer Interventions (BPI) for the treatment of ADHD in both children and adolescents.\(^\text{147,148}\)

**Disruptive behaviour problems**  
Behaviour therapy is well supported by research for the treatment of disruptive behavior problems (including oppositional defiance disorder and conduct disorder) in both children and adolescents. This treatment can be administered in a variety of different formats, each of which has varying levels of research support. The most effective type of behaviour therapy is individual parent management training. Other behaviour therapies that can be effective are problem-solving skills training, with or without parent management training, and counsellor-led or peer-led group assertiveness training. Individual CBT, Multidimensional Treatment Foster Care, and Multisystemic Therapy can also be effective. Group CBT and group Parent Management Training might also be effective.\(^\text{149,150}\)

**Substance abuse and dependence**  
The research supports Group CBT, Multidimensional Family Therapy, and Functional Family Therapy for the treatment of adolescent substance abuse. Brief Strategic Family Therapy, Behavioural Family Therapy, and Multisystemic Therapy can also be effective. Individual CBT, Transitional Family Therapy, Strength-oriented Family Therapy (SOFT), and the Minnesota Model 12 Step Program might be effective.\(^\text{151,152}\)

**Eating disorders**  
The research strongly supports family therapy (Brief Strategic Family Therapy, Multisystemic Therapy, Multidimensional Family Therapy, Functional Family Therapy) for the treatment of anorexia nervosa. The effectiveness of cognitive therapy for this disorder is unknown. No treatments are strongly supported by research for bulimia, although guided self-care for binge eating CBT and family therapy, as above, might be effective.\(^\text{153,154}\)

**Bipolar Disorder**  
Family therapy can work for the treatment of bipolar disorder in children and adolescents; Child-focused CBT, Family-focused CBT, and Individual Family Psychoeducation might be effective.\(^\text{155-160}\)

**Autism Spectrum Disorders**  
For young children, behaviour therapy appears to be the only effective treatment for autism spectrum disorders, and there appear to be no effective treatments for older children and adolescents.\(^\text{161,162}\)

**Additional considerations for children and youth with intellectual disabilities**  
Children and youth with intellectual disabilities and developmental disabilities experience significantly more emotional and behavioural problems than their peers without intellectual disabilities. It is generally recognized that their needs are complex, persistent, and costly, and that they are not adequately met.\(^\text{163}\) The diagnosis of some mental health problems in children and youth with intellectual disabilities can be very challenging, with some disorders (e.g., schizophrenia) easier to detect than others (e.g. emotional disturbance), depending on the nature and severity of the disability.\(^\text{164}\)

Limited research has been completed on the effectiveness of counselling, treatment, and medications for both children and adults with intellectual disabilities. There appears to be a high level of disagreement among researchers about which approaches are most effective.\(^\text{165}\)
3.4 Community-based educational supports

Please note that this section of the report does not address the learning needs of children and youth with intellectual disabilities. Although they may exist, no programs that were both evidence-based and community-based were identified in the literature search.

3.4.1 Community-based tutoring programs

The majority of both school- and community-based tutoring programs have not been evaluated. However, repeated evaluations of large-scale school-based programs such as Reading Recovery in the U.S. have reported modest improvements in reading ability, and greater improvements when the program is enriched with systemic phonics enhancement. An intervention provides one-on-one tutoring in schools by a specially trained teacher to struggling readers. One evaluation has shown that a similarly enriched version of Reading Recovery, Reading Rescue, is effective with low socio-economic status grade 1 ESL students relative to those who received a small group intervention.

On the other hand, outcomes of Supplemental Educational Services in the U.S., a component of the No Child Left Behind Act intended to improve student achievement in reading and math, have been mixed. Most studies report no statistically significant improvements in achievement. As summarized by Viadero, “while most parents report satisfaction with the services, the studies find that the added hours of tutoring have so far produced only small or negligible gains on state reading and mathematics tests.” Clearly, some school-based tutoring programs are effective, while others are not.

The research on smaller programs that might be delivered during the after-school hours, possibly by volunteers, has also produced mixed findings. Most programs that have been rigorously evaluated have only been evaluated once, using a small sample. However, these initial findings are still encouraging, suggesting that several different approaches, as long as they adhere to best practices, can be effective. These programs typically target either math skills or, more commonly, reading skills. In addition, the research is clearly focused on students in elementary school. While programs exist for adolescents who struggle with reading, it appears that all of the research is on programs delivered in schools, by teachers, providing little guidance for community-based programmers.

Overall, the research supports peer tutoring, cross-age tutoring, tutoring by volunteers, one-on-one tutoring and, in some cases, small group tutoring.

Program elements and practices for success

Several reviews of the research on tutoring programs have been written in the past few years, each with a slightly different focus. Collectively, these reviews identify some program elements and practices that appear to improve program effects, but some areas require further research.

For after-school programs in particular, effective practices include:

- Housing the program in the school and having the program taught by teachers. With some exceptions, students in these types of programs tend to outperform those in off-site programs taught by non-teachers.
- Communication with the classroom teacher.
- Longer-term engagement. A “threshold” number of hours has not been clearly established. Some effective programs last only a few months; others require two years or more, or at least 160 hours of participation. It is clear, nonetheless, that changes don’t happen quickly and may not happen even over a long time period if the program is not sufficiently intensive or does not provide the right kind of curriculum or instruction. Overall, some researchers suggest that a minimum of 30 hours of tutoring is required to show student improvement.

Power and Cummings’ recent review of 25 high-quality studies on the effectiveness of one-on-one tutoring in reading for elementary students identified the following factors as key contributors to the effectiveness of reading tutoring programs for elementary students:

- Volunteers from all backgrounds and age groups, from high school students to seniors, can be successful in helping children learn to read. There is no trend in the data to suggest that any particular type of volunteer is preferable. However, training and close supervision of the volunteers is crucial to positive outcomes. Successful programs provide an on-site coordinator to oversee the program, continuous feedback to the tutors on their tutoring sessions, high-quality training for the tutors, and structured tutoring sessions. Quality training programs involve modeling of best practices before, during and after the scheduled tutoring sessions for volunteers.

- Volunteers must use evidence-based tutoring strategies, such as strong reinforcement of progress, a high number of reading and writing experiences in which the student moved from being fully supported to working independently, explicit demonstration of appropriate reading and writing processes; a focus on reading comprehension; and cognitive scaffolding.

- Programs should assess reading ability before and after program participation.

- Required quantity and duration of participation are unclear, but it appears that sessions over 60 minutes in length do not necessarily result in better outcomes. Rather than the time spent in any one tutoring session, effects seem to be more highly related to the total amount of time the child spends with the tutor. Lauer’s synthesis of research on out-of-school-time programs with a tutoring component reported that programs that provided at least 45 hours of participation were more effective overall.

- A wide range of reading materials can be used effectively.
Repeated studies have shown that parents greatly influence children’s learning, literacy levels, and academic success. Children’s educational attainment is highly correlated with that of their parents, particularly their mothers. Reading skills are a key pillar of the foundation of success in school and beyond. When parents find reading challenging, it is often difficult for children in that family to engage in, learn to love, and succeed at reading. Children who experience difficulties with reading in the early grades often continue to struggle throughout the educational process.

The latest International Adult Literacy Survey revealed that about 40 per cent of Albertans have insufficient literacy skills and 50 per cent have insufficient numeracy skills to participate in today’s economy. Poor adult literacy skills are associated with a range of problems including but not limited to health problems (often associated with the inability to read labels and instructions), low levels of social capital, high school dropout, low levels of employment, and low income. These problems will grow as the economy becomes increasingly knowledge based. Therefore, literacy programs for children (and for adults) should be included as a pillar of any long-term poverty prevention strategy.

Family literacy programs are one approach to improving children’s literacy skills to afford them a better chance in life. Family literacy programs seek to help children develop language and literacy skills with the support of their parents, who have the opportunity to improve their own skills.

Family literacy programs usually target pre-school-aged children or elementary school-aged children and they may be school-based, community-based, or offered in schools via school-community partnerships. In Canada, programs grouped under the family literacy banner range from reading circles to school-community partnerships to Parents and Children Together programs. Most Canadian family literacy programs tend to focus specifically on increasing the literacy of at-risk children by encouraging parents to support reading in the home. As described by Thomas, “Canadian family literacy intervention has been characterized by relatively short-term low intensity programs.” Alberta’s Parent-Child Literacy Strategy takes a “soft” intergenerational approach, targeting oral and early and emergent literacy development for at-risk children from birth to six years of age and their parents via adult literacy and parenting instruction.

Because the nature of family literacy programs is so varied and most programs are run on minimal budgets by non-profit organizations, “the level of program evaluation in family literacy often amounts to little more than testimonials.” There are a few exceptions to this sweeping statement, however. For example, an experimental evaluation of Learning Together: Read and Write With Your Child, which consists of 90 hours of instruction over 12 weeks, revealed significant and sustained improvements in the reading scores of children with the lowest pre-test scores, i.e., the ones with the furthest to go. The researchers concluded that the program should target only those children with the lowest literacy levels. They also suggested that the most effective means of increasing young children’s literacy levels would be to increase the educational levels of their parents, since many parents are unable to read to and with their children. Likewise, several quasi-experimental evaluations of the very intensive Families Learning Together program in Atlantic Canada, some of which were provided to Aboriginal families only, have demonstrated large and significant improvements in children’s reading abilities.

In the U.S., an in-depth intergenerational approach to family literacy programs has been adopted into federal legislation. Even Start, a comprehensive, federally-funded American program, targets the most at-risk children and includes significant adult education among its components. The overriding objective of Even Start is to “break the cycle of illiteracy and poverty in low-income and low-literate families.” Early evaluations of Even Start and several other intensive, long-term, multi-component family literacy programs showed very positive results for both children and adults. For example, adults who participated in family literacy programs increased their reading, writing, and math proficiency; oral communication skills; and their job skills and employment prospects. However, subsequent experimentally-designed evaluations of Even Start have been less encouraging. They showed that Even Start families did not improve more than control group families, many of whom received other early childhood education or adult education services. Family literacy advocates have questioned the methodology of this evaluation.

Overall, there is good evidence that some family literacy programs can be effective but, in general, effective programs are structured and intensive, and include a focus on adult literacy instruction.
3.4.3 Academic after-school programs

Studies indicate that to be effective, after-school programs that seek to improve participants’ academic performance must include direct instruction, one-on-one academic support, and many hours of participation. Recent evaluations of a large after-school program in the U.S. targeting academic performance revealed that regular attendance (over 100 days per year) improved students’ math performance but not their language arts performance. There were no academic improvements among students who attended less frequently.²¹⁰⁻²¹¹

but there was also no relationship between attendance and self-efficacy, collaboration skills, or communication skills.²¹²

Evaluations of other large, multi-site, after-school programs have found that educational and behavioural improvements were associated, in one program, with at least 80 days of attendance over the course of a year.²¹³ and, in another program, with 100 days of attendance for elementary school students and 50 days for junior high students.²¹⁴ Lessons have also been drawn from evaluation of an intensive summer learning program for low-income elementary school children in the U.S. In this program, participants’ literacy skills improved, but apparently not their math skills, social skills or behaviour. The program provided six weeks of programming that included 48 hours of direct instruction and tutoring in math and reading toward a total of 240 hours of participation (including field trips artistic and recreational activities, guest speakers, community service).²¹⁵

3.5. Transition to adulthood for vulnerable youth

The transition to adulthood is challenging for all adolescents. It can be extremely difficult for youth who are also identified as vulnerable. Youth can be vulnerable for the many reasons:

• Family dysfunction
• Social, emotional, and/or behavioural challenges
• Learning or cognitive difficulties
• Language or cultural barriers
• Lack of life and employment skills

And, at the further end of the risk spectrum:

• Aging out of or otherwise leaving the care of child welfare
• Homelessness
• Substance abuse issues.
• Teen pregnancy or parenting
• Criminal involvement²¹⁶

Many youth who experience these serious challenges lack maturity, life skills, and parental guidance and support, which make it very difficult for them to successfully live on their own.²¹⁷

The most effective ways of preventing such problems to intervene earlier in the life course through:

• Home visitation programs
• Early childhood education programs
• Family strengthening programs
• Counselling programs and therapy
• Developmental programs
• Supports for school success and completion
• A range of improvements to the child welfare system
• Other prevention initiatives

However, with a view to preventing the same cycle of poverty, criminality, poor parenting, family dysfunction, and poor child and youth development in the next generation, a brief review of the research is provided below.

Compared to research on interventions for younger children and youth, little rigorous research has been completed on interventions to assist older youth, defined here to include young people aged 18 to 25 years, to successfully transition to adulthood. Experimental evaluations of interventions in the areas of education, employment, and substance abuse indicate that there is no “magic bullet”. Some programs are effective for some youth, under some circumstances. It appears that few interventions of any kind for homeless and street-involved youth have been evaluated at all and fewer still have been evaluated using an experimental or quasi-experimental design. This is likely because the transient lifestyles of homeless youth often make it impossible to retain contact with members of a control or comparison group over a period of time.

Learnings from experimental evaluations of large-scale American education and employment programs for vulnerable youth in transition, such as National Guard Youth ChalleNGe, YouthBuild, and Job Corps, indicate that more successful programs are high intensity and feature case management and wraparound supports, are of long duration (18 months or more), include many hours of participation (200 to 500 hours), provide childcare, and include specific skills training. Some programs specifically geared toward employment, featuring vocational training, career counselling, and/or job placement assistance have at least a short-term positive effect. Some have no effect.²¹⁸

The majority of the substance abuse prevention/intervention programs that have been evaluated have been shown to be ineffective or to be effective only for some substances. The few exceptions include the Alcohol Skills Training Program, which has been successful with college students in the United States,²¹⁸⁻²²⁰ and Brief Strategic Family Therapy (although BSFT targets adolescents).²¹⁸,²²¹,²²²

The most consistent and, probably, important finding from the research on all programming to assist at-risk youth to successfully transition to adulthood is that, to be effective, interventions must be very intensive, multi-faceted, and allow for repeated failure. And, youth must be “ready” to participate. As observed by Public/Private Ventures, youth who join programs often describe an “awakening” process that prompts them to want change their lives. Youth have to come to a point where they want to “get their lives together” and, often, to identify a specific goal, such as a particular skill or educational achievement that is important to their future, and to be ready to accept help in achieving that goal.²¹⁹ Even then, retaining the interest of vulnerable youth in an intervention can be very difficult. “Youth who historically experience a lack of motivation or disillusionment resulting from previous negative exposures often need immediate engagement so that any period of initial optimism can be cultivated, and not wasted.”²²⁴
Key principles for effective service delivery to vulnerable youth

In an extensive recent review from Australia, Barker identified some key principles that underlie effective service delivery. Although these principles were identified for youth who are homeless or at risk of homelessness, they appear to be applicable for all highly vulnerable youth.

- ** Relationships:** The importance of a relationship between worker and service user(s) cannot be over-emphasized.
- ** Collaboration:** Collaboration among service users, their families, other support networks and workers and other service providers, including schools and health services, is vital to understanding and meeting the needs of young people.
- ** Strengths-based:** This approach builds on young people's capacity to address risk factors while enhancing resilience. Strength-based approaches “focus on the strengths already possessed by the client and those found within their environment.” Best practice evidence articulates that this approach enhances the effectiveness of interventions at any level of intervention.
- ** Participation and inclusion:** To be effective in achieving outcomes, including being effective in engaging young people in the first place, interventions need to recognize young people’s agency, choice, and self-directive capacities. To engage young people effectively at any level, there needs to be meaningful opportunities, sufficient resources, well informed staff, friendly spaces and flexibility for young people to participate for varying lengths of time.
- ** Individually responsive and flexible:** Knowledge of trajectories into homelessness highlights the fact that young people at risk of homelessness are not a homogeneous group for whom one type of intervention will fit all. They are a diverse group with diverse needs.
- ** Capacity building:** Capacity building applies not only to building resilience in young people but also to strengthening the workforce established to support young people. Building resilience is an important goal if we are to strengthen capacity and promote skills that help to reduce young people’s vulnerability; developing young people’s skill and knowledge to negotiate life transitions and facilitate young people to adapt successfully to change and stressful events.

- ** Continuity of care:** To achieve effective transition into “independence” (or out of homelessness), youth may require services into their twenties. This may require flexibility and resources to ensure that young people who need more support do not slip through the cracks.

Additional considerations for youth with disabilities transitioning to adulthood

The myriad publications on transition to adulthood for youth with disabilities generally fall into three main categories:

- The identification of barriers to transition for these youth and the need for better supports and programming.
- Descriptions of programs or guides for parents to assist youth with disabilities to transition.
- Research, usually qualitative, on programs to assist transition in a specific area, such as transition within the health or education systems, or acquiring skills for daily living to increase independence. A paucity of research on evidence-based programs and practice is widely noted.

Drawing on the limited quantitative research in conjunction with feedback obtained via focus groups and meetings with young people with disabilities, parents, community members, service providers, and policy analysts in Ontario, Stewart, et al., produced best practice guidelines for the transition to adulthood for youth with disabilities.

Six key themes: Transition to adulthood for youth with disabilities

1. Collaborative initiatives and policies are necessary supports for the transition to adult life.
2. Building capacity of people and communities will enhance transition process.
3. The role of the “Navigator” within communities facilitates capacity building.
4. Information and resources are available to all involved in the transition process.
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summaries include literature reviews, which are narrative summaries of existing research on a specific topic, and systematic reviews, which use more rigorous methods to collect and assess studies and synthesize findings. Meta-analyses, which are also included, use a type of statistical analysis that combines the results of multiple similar scientific studies to determine whether the overall effect is positive or negative. In some sections, examples of new programs with strong published evaluation results are included. Resources included in this section come from peer-reviewed journal articles as well as well-documented grey literature including that from government agencies, best practice sites, and systematic review organizations (e.g. Cochrane Library, Campbell Collaboration) published since 2013.

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<td>California Evidence Based Clearing House for Child Welfare&lt;sup&gt;240&lt;/sup&gt;</td>
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<td><strong>Family literacy</strong></td>
<td><strong>Best practice review:</strong> Bluprints for Healthy Youth Development[^230]</td>
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|                                       | **Additional resources:**  The Impact of Family Involvement on the Education of Children Ages 3 To 8: A Focus on Literacy and Math Achievement Outcomes and Social-Emotional Skills (literature review)[^247]  
|                                       | Parent-Mediated Reading Interventions With Children Up To Four Years Old: A Systematic Review[^248]  
|                                       | The Determinants of Father Involvement and Connections to Children’s Literacy and Language Outcomes: Review of the Literature[^249] |
| **Mental health promotion, prevention and resilience** | **Best practice reviews:**  California Evidence Based Clearing House for Child Welfare[^240]  
|                                       | Crime Solutions[^250]                                                                                               |
|                                       | **Additional resources:**  Systematic Review of Universal Resilience-Focused Interventions Targeting Child and Adolescent Mental Health in the School Setting[^251]  
|                                       | A Whole Community Approach Toward Child and Youth Resilience Promotion: A Review of Resilience Literature[^252]  
|                                       | School-Based Mental Health in Canada: A Final Report[^253]  
|                                       | A Systematic Review of Online Youth Mental Health Promotion and Prevention Interventions[^254]  
|                                       | The Effects of Childhood Maltreatment on Brain Structure, Function and Connectivity[^255]  
|                                       | Preventing the Onset of Child Sexual Abuse by Targeting Young Adolescents with Universal Prevention Programming[^256]  
|                                       | Effectiveness of Psychological and/or Educational Interventions to Prevent the Onset of Episodes of Depression: A Systematic Review of Systematic Reviews and Meta-Analyses[^257]  
|                                       | A Systematic Review of Strengths and Resilience Outcome Literature Relevant to Children and Adolescents[^258]  
|                                       | Systematic Review of Universal Resilience-Focused Interventions Targeting Child and Adolescent Mental Health in the School Setting[^251]  
|                                       | School-Based Programs for Increasing Connectedness and Reducing Risk Behavior: A Systematic Review[^259]  
|                                       | Cost-Effectiveness and Affordability of Interventions, Policies, and Platforms for the Prevention and Treatment of Mental, Neurological and Substance Use Disorders[^261]  
|                                       | Common Elements of Adolescent Prevention Programs: Minimizing Burden While Maximizing Reach[^262]  
|                                       | A Meta-Analysis of Universal Mental Health Prevention Programs for Higher Education Students[^263]  
<p>|                                       | Lessons from Iceland: Developing Scalable and Sustainable Community Approaches for the Prevention of Mental Disorders in Young Australians[^264] |</p>
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| **Mental health treatment**                              | **Best practice reviews:** California Evidence Based Clearing House for Child Welfare\(^{240}\) Crime Solutions\(^{250}\)  \[**Additional resources:** National Registry of Evidence-based Programs and Practices, Substance Abuse and Mental Health Services Administration (SAMHSA) USA\(^{265}\) Evidence Summaries from National Institute for Health and Care Excellence\(^{266}\) (NICE, UK) Canadian (CANMAT) Guide to Treatment of Depression\(^{267}\) Psychological Treatment of Depression in College Students: A Metaanalysis\(^{268}\) Interventions for Preschool Children at High Risk for ADHD: A Comparative Effectiveness Review\(^{269}\) ADHD in Children and Young People: Prevalence, Care Pathways and Service Provision\(^{270}\) Psychosocial Treatment Efficacy for Disruptive Behavior Problems in Very Young Children: A Meta-Analytic Examination\(^{271}\) Assessment and Management of Anxiety Disorders in Children and Adolescents\(^{272}\) Evidence-Based Psychosocial Treatments for Child and Adolescent Bipolar Spectrum Disorders\(^{273}\) Royal Australian and New Zealand College of Psychiatrists Clinical Practice Guidelines for the Treatment of Eating Disorders\(^{274}\) Emotion Regulation Strategies in Depressive and Anxiety Symptoms in Youth: A Meta-Analytic Review\(^{275}\) Current Issues in Mental Health in Canada: Child and Youth Mental Health\(^{276}\) Interventions for Adolescent Mental Health: An Overview of Systematic Reviews\(^{277}\) |}
<p>| <strong>Mentoring</strong>                                            | <strong>Best practice reviews:</strong> Blueprints for Healthy Youth Development(^{230}) Crime Solutions(^{250})  [<strong>Additional resources:</strong> Elements of Effective Practice for Mentoring™ (2015)(^{276}) LGBTQ(^{279}) and STEM(^{280}) supplements are also available Mentoring Best Practices Toolkit (YWCA Vancouver)(^{281}) Literature Review of Mentoring Models for Youth at Risk/Involved in the Justice System(^{282}) Mentoring Interventions to Affect Juvenile Delinquency and Associated Problems: A Systematic Review(^{283}) Mentoring Programs to Affect Delinquency and Associated Outcomes of Youth at Risk: A Comprehensive Meta-Analytic Review(^{284}) Mentoring Relationships and the Mental Health of Aboriginal Youth in Canada(^{285}) |</p>
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| Substance abuse prevention           | **Best practice reviews:**  
                                       | Social Programs That Work\(^{239}\)  
                                       | Blueprints for Healthy Youth Development\(^ {230}\)  
                                       | California Evidence Based Clearing House for Child Welfare\(^ {240}\)  
                                       | Crime Solutions\(^ {230}\)  
                                       | **Additional resources:**  
                                       | National Registry of Evidence-based Programs and Practices (Substance Abuse and Mental Health Services Administration (SAMHSA) USA\(^ {245}\)  
                                       | Effectiveness of School-Based Preventive Interventions on Adolescent Alcohol Use: A Meta-Analysis of Randomized Controlled Trials\(^ {286}\)  
                                       | Text Messaging Interventions for Adolescent and Young Adult Substance Use: A Meta-Analysis\(^ {287}\)  
                                       | Implementing the Icelandic Model for Preventing Adolescent Substance Use\(^ {288}\)  
                                       | Prevention of Alcohol and Drug Misuse in Adolescents: An Overview of Systematic Reviews\(^ {289}\) |
| Suicide prevention                    | **Best practice review:**  
                                       | Social Programs That Work\(^ {239}\) |
|                                      | **Additional resources:**  
                                       | Program for Canada: A Systematic Review of Reviews\(^ {290}\)  
                                       | Suicide Prevention Strategies Revisited: 10-Year Systematic Review\(^ {291}\)  
                                       | Gender Differences in Suicide Prevention Responses: Implications for Adolescents Based on an Illustrative Review of the Literature\(^ {292}\)  
                                       | Comparison of the Effects of Telephone Suicide Prevention Help by Volunteers and Professional Paid Staff: Results from Studies in the USA and Quebec, Canada\(^ {293}\)  
                                       | A Systematic Review of School-Based Suicide Prevention Programs\(^ {294}\) |
| Transition to adulthood for vulnerable youth | **Best practice review:**  
                                       | California Evidence Based Clearing House for Child Welfare\(^ {246}\) |
|                                      | **Additional resources:**  
                                       | Promoting Youth Mental Health Through the Transition from High School – Literature Review and Environmental Scan\(^ {295}\)  
                                       | Mental Health and Transitions from Adolescence to Emerging Adulthood: Developmental and Diversity Considerations\(^ {296}\)  
                                       | Natural Mentoring Among Older Youth In and Out of Foster Care: Systematic Review\(^ {297}\)  
                                       | A Systematic Review of Effective Interventions for Reducing Multiple Health Risk Behaviors in Adolescence\(^ {298}\)  
                                       | ‘Scared Straight’ and Other Juvenile Awareness Programs for Preventing Juvenile Delinquency (Cochrane Review)\(^ {299}\)  
                                       | Effectiveness of Positive Youth Development Interventions: A Meta-Analysis of Randomized Controlled Trials\(^ {300}\)  
                                       | Practitioner Review: Effective Ingredients of Prevention Programs for Youth at Risk of Persistent Juvenile Delinquency – Recommendations for Clinical Practice\(^ {301}\)  
<pre><code>                                   | Systematic Reviews of the Effectiveness of Developmental Prevention Programs in Reducing Delinquency, Aggression and Bullying\(^ {302}\) |
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| **Youth with disabilities** | **Best practice review:**  
What Works Clearinghouse<sup>303</sup> |
| | **Additional resources:**  
Campbell Collaboration Systematic Review: Individualised Funding has Positive Effects on Health and Social Care Outcomes<sup>304</sup>  
Systematic Review of Interventions to Promote Social–Emotional Development in Young Children With or at Risk for Disability<sup>305</sup>  
A Systematic Review of Mentorship Programs to Facilitate Transition to Post-Secondary Education and Employment for Youth and Young Adults with Disabilities<sup>306</sup>  
Transition to Adulthood for Individuals with Autism Spectrum Disorder: Current Issues and Future Perspectives<sup>307</sup>  
Social Skills Training for Youth with Autism Spectrum Disorders: A Follow-Up<sup>308</sup>  
Interventions for Mental Health Problems in People with Learning Disabilities – NICE Pathways<sup>309</sup> |

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In this document:

- "Evidence-based" means that a program or practice has been tested in a well-designed and methodologically sound experimental (randomized controlled trial (RCT)) or quasi-experimental study (and, ideally, multiple studies and replicated in more than one site), and has been shown to produce significant reductions in poor outcomes or associated risk factors or significant increases in positive outcomes or associated protective factors.

- "Best practices" refer to programs or components of programs or delivery methods that have been identified as effective (i.e., produce significant reductions in poor outcomes or associated risk factors or significant increases in positive outcomes or associated protective factors) by repeated methodologically sound studies using an experimental (RCT) or quasi-experimental design.

- "Promising practices" refer to programs or components of programs or delivery methods that have been identified as effective ("effective" as defined above) in at least one well-designed and methodologically sound study using at least a pre-post design with a large sample of participants that has been subject to peer review.

- "Prevention" means creating conditions or personal attributes that strengthen the healthy development, wellbeing, and safety of individuals across the lifespan and/or communities, and prevent the onset or further development of problems in each of these domains. In the research-based risk and protection prevention paradigm, prevention occurs by reducing risk factors and increasing protective factors.
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