

**Promising Practices in After-School Programming for Disadvantaged
Children and Youth: A Review of the Literature**

**by
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Abstract

The childhood poverty rate in Canada was 18.5% in 2014 and some areas of the country are currently experiencing large influxes of refugee families, further exacerbating these figures. Childhood poverty can lead to number of developmental concerns including: withdraw and aggressive behaviours, thought and attention problems, lower than average intelligence quotients (IQs), poor academic readiness skills, and poor social-emotional functioning. In addition to high poverty rates many families are required to have dual earners; this scenario, or being a single-parent family, often leaves children unsupervised in the after-school hours. Research has suggested that this can cause increased risky behaviours and poorer developmental outcomes. In addition to providing a safe space during the high-risk after-school hours, after-school programs (ASPs) can have positive impacts on academic performance, social skills, relationship building, and physical activity. A review of the literature was therefore conducted to determine promising practices in ASPs for disadvantaged and at-risk children and youth. Eight ASP curricula were identified in addition to a number of general programming recommendations. From these a set of promising practices was developed, grouped into three main areas: recruitment strategies, staffing requirements/procedures, and curricula/program models and specifics. These promising practices can inform Canadian policymakers in developing standards for programming for ASPs, to ensure that public investments are made in programs that have maximum positive impact on young people.

Keywords: after-school programs, disadvantaged, at-risk, children, youth, academic performance, social skills, relationship building, physical activity, promising practices

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List of Acronyms

IQ	Intelligence Quotient
ASPs	After-School Programs
BC	British Columbia
US	United States
PYD	Positive Youth Development
CSV	Canada SCORES Vancouver
SFU	Simon Fraser University
OCED	Organisation for Economic Co-operation and Development
RCT	Randomized Controlled Trial
HEARTS	Health, Education, in the Arts, Refining Talented Students
21 st CCLC	21 st Century Community Learning Centers
PREP	Promoting Responsibility through Education and Preparation
MIM	Minds in Motion
GPA	Grade Point Average
SFP	Supporting Families Program
CPP	Coping Power Program
PHAC	Public Health Agency of Canada
JCSH	Joint Consortium for School Health
PHE	Physical and Health Education

Background

The childhood poverty rate in Canada was 18.5% in 2014 and some areas of the country are currently experiencing large influxes of refugee families, further exacerbating these figures (First Call, 2016). Childhood poverty can lead to number of developmental concerns including: withdraw and aggressive behaviours, thought and attention problems, lower than average intelligence quotients (IQs), poor academic readiness skills, and poor social-emotional functioning (Reiss, 2013; van Oort, van der Ende, Wadsworth, Verhulst, & Achenbach, 2011). ASPs can help to mitigate these negative effects. This review will focus on children and youth aged four through 18 years; *children* will refer to those in the early-to-middle school-age years, while *youth* will refer to teens or adolescents.

ASPs are a large part of the lives of many young people, with an estimated 8.4 million or 17% of school-aged children and youth in the United States (US) participating in some form of this programming (Durlak, Mahoney, Bohnert, & Parente, 2010). In Canada these proportions are even larger with as many as 48% of school-aged children participating in some form of ASP (BC Recreation and Parks Association, 2010; Physical and Health Education Canada, 2014). While this interest continues to grow, participation rates differ by age. Pierce, Bolt, and Vandell (2010) note that approximately 23% of children in Kindergarten to Grade five are participating in some form of non-parental, school- or centre-based programming for as many as 7.7 hours per week. These numbers are not surprising given that the traditional purpose of ASPs was to provide supervision for young children while their parents were at work (Durlak, Mahoney, et al., 2010; Pierce et al., 2010). This is also understandable due to more than 60% of families in the US having primary caregivers in the labour force with their work days being longer than their children's school days (National Institute of Child Health and Development, 2004). Therefore,

after-school care is a concern for many families. The provision of adult supervision through ASPs is important as research has suggested that the additional time that children are left unattended in the after-school hours, due to being from single-parent or dual-earner families, can cause increased risky behaviours and poorer developmental outcomes (Fredricks & Simpkins, 2012). So in addition to providing a safe space during high-risk after-school hours, ASPs can have positive effects on academic performance, social skills, relationship building, and physical activity (Fredricks & Simpkins, 2012).

Perhaps one of the most promising arguments for additional support for ASPs is that research has also shown that overall, they support positive youth development (PYD), a term used in the literature that covers both children and youth (Fredricks & Simpkins, 2012). PYD is achieved through the combination of positive experiences, positive relationships and positive environments; ASPs can provide all of these (Fredricks & Simpkins, 2012). The concept of PYD is particularly critical for disadvantaged children and youth because due to the many barriers they face — including being from low-income families, lacking access to programs, and being exposed to unsafe environments — they often have greater difficulty negotiating typical developmental tasks effectively (Mahoney, Lord, & Carryl, 2005).

ASPs can provide a safe space and positive learning environment for young people living in unsafe, low-income areas where they are often exposed to violence and may be enrolled in underfunded, unaccredited schools (Sale, Weil, & Kryah, 2012). Providing safe spaces is becoming an increasingly important role for ASPs to reduce the after-school crime rates in major cities as well (Cross, Gottfredson, Wilson, Rorie, & Connell, 2010; Holleman, Sundius, & Bruns, 2010). More targeted efforts to support young people are also becoming a focus of the ASP world and are eliciting philanthropic investments and federal funding (Pierce et al., 2010).

For ASPs to enhance PYD, particularly for disadvantaged young people, they need to follow practices that have been proven effective through rigorous evaluations. The purpose of this capstone is therefore to critically review the literature on ASPs for disadvantaged children and youth to determine the promising practices for such programming. While universal ASPs exist, this particular project will focus on targeted programs for disadvantaged children and youth which supports the concept of ‘proportionate universalism’ (The Marmot Review, 2010). The distinction between *best* practices and *promising* practices was made because as laid out by the Public Health Agency of Canada (PHAC), to be deemed a best practice, multiple implementations of a particular program must demonstrate high impact, high adaptability and high quality of evidence (PHAC, accessed March 26th, 2017). There are a number of frameworks and guidelines in the literature for developing best practices, including the ‘Emerging, Promising and Best Practices’ framework from the Center for Disease Control in the US, however the PHAC framework was used here to increase relevance to Canadian context. This level of rigour is beyond the scope of this capstone project; it is also seldom present in the ASP literature to date. So *promising* practices chosen as the standard here. The inspiration for this project came from exposure to a British Columbia (BC) based ASP, Canada SCORES Vancouver (CSV). CSV offers programming for some of BC’s most disadvantaged children and youth and is awaiting a formal evaluation. The CSV model will therefore also be reviewed and comparisons drawn regarding how it aligns with promising practices as suggested in the critical literature review.

The intent of this capstone is to support ASP policy and practice development. From a policy perspective reviews such as this can provide important guidelines for informing funding decisions regarding ASPs. Organizations wishing to implement quality ASPs for disadvantaged

children and youth can also consult reviews such as this to inform their specific programming decisions.

Methods

Databases and Search Strategy

Adapted systematic review methods were used to identify and review relevant original studies and systematic reviews. These methods included clearly defining the review question, formulating a rigorous search strategy, documenting the search strategy and results, and critically appraising the evidence. Reviewing previous systematic reviews was the first step in this comprehensive search. Three online databases were searched for relevant studies: Education Source, ERIC, and PsycINFO. These databases were determined to be the most relevant after consultation with Education and Health Sciences librarians at SFU. Reviews of previous systematic reviews of ASPs and searches of database thesauruses guided the selection of relevant subject headings. Previous systematic reviews were located through searches in PsycINFO using key words ([Table 1](#)) and narrowing searches to identify only systematic reviews. Major subject headings were identified for the two main topic areas of this review — disadvantaged children/youth and after-school programming — in each of the three databases. Each term was searched as a subject heading and Boolean logic was used to generate searches.

Table 1. Search Strategy

Education Source	ERIC	PsycINFO
(youth with social disabilities OR children with social disabilities OR at-risk youth OR at-risk students OR low-income students OR socioeconomically disadvantaged students OR immigrant students) AND (after school programs OR after school programs – evaluation)	(disadvantaged youth OR at risk students OR low income students OR immigrants) AND (after school programs)	(disadvantaged OR predelinquent youth) AND (after school programs)

Article Screening

The search was conducted on January 9, 2017 and 435 articles describing original studies were identified: 71 from Education Source, 351 from ERIC and 13 from PsycINFO. Articles were then filtered to ensure peer-review and to remove duplicates. After this process 202 articles remained. Articles were limited to the years 2005–2017, to reflect most recent research, then article titles and abstracts were screened in comparison with inclusion/exclusion criteria. For a full list of inclusion/exclusion criteria see [Table 2](#). After this process 54 articles remained and were requested in full text. Decisions regarding appropriate comparison/control groups and retention rates were made through a review of relevant systematic reviews; inclusion/exclusion criteria used in these systematic reviews were adapted for use in this capstone. Thirteen articles were then ultimately included. For a visual depiction of the search and review process see [Appendix A](#).

Table 2. Inclusion/Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> - Focused on disadvantaged school-aged children and youth - Published in peer-reviewed journals between 2005 and 2017 - Provided sufficient details to allow assessment of methods - Quasi-experimental or randomized controlled trial (RCT) methods were used (included control/comparison groups) - Had retention rates of > 85% - Reported on original data or standardized secondary data 	<ul style="list-style-type: none"> - Were not peer-reviewed - Focused solely on the following: <ul style="list-style-type: none"> • Tutoring, enrichment or homework clubs; • College or specific career preparation; • Summer learning programs; • One-time workshops or programs; • Programs where after-school and in-school components were not discussed independently - Conducted outside Organisation for Economic Co-operation and Development (OECD) Countries (done to ensure relevance to Canadian policy) - Focused on pre-Kindergarten only - Focused on targeted programs for children and youth with diagnosed mental and/or learning disorders - Were merely commentaries or did not provide specific research methods - Did not have adequate control/comparison groups

Review of Evidence

In addition to having to explicitly describe their methods, all studies were screened based on their control/comparison groups, retention rates, and data types (see [Table 2](#)). The control/comparison group, at minimum, had to include students from disadvantaged backgrounds or with similar demographics (i.e., age, sex, race). Usually these groups comprised students

enrolled in the same or neighbouring schools. While randomization was preferred, the criteria allowed quasi-experimental design studies — necessary as this search only yielded three RCTs. All included studies had to have at least 85% retention rates, consistent with the literature (Atkin, Gorely, Biddle, Cavill, & Foster, 2011; Durlak, Weissberg, & Pachan, 2010; Kremer, Maynard, & Sarteschi, 2015; Taheri & Welsh, 2016).

Five of the original 13 articles that were identified provided a more general overview of ASPs for disadvantaged children and youth and did not provide insight into a standardized curriculum. These five articles employed a variety of methods including quasi-experimental studies, meta-analyses, longitudinal quasi-experimental studies, and analyses of secondary data. Because each of these articles fit the original inclusion criteria, there were nevertheless used to inform the [General Recommendations](#) section of this review.

Results: After School Program Curriculums

The review highlighted a total of eight curricula used in ASPs for disadvantaged and at-risk children and youth. These programs were all evaluated in the US, with the exception of one program that was evaluated in Ireland. Four curricula were more general or multi-focused (WINGS, Village Model of Care, HEARTS and 21st CCLC) while four focused on prevention of a certain behaviour or improvement in a particular skill (Éxito, All Stars, PREP and Mate-Tricks). See [Table 3](#) for a list of the program mission/vision statements. A summary of the key program elements can be found in [Appendix B](#).

Table 3. Identified ASP Curricula

ASP Curricula	Mission/Vision Statement/Core Focus Area
General or Multi-Focused Curricula	
WINGS	“By the time that kids are teenagers they’ll know how to live powerfully, joyfully and responsibly” (WINGS for Kids Inc., 2013).
Village Model of Care	“Prevent both the initiation to and escalation of alcohol, tobacco, and other drug use; to avert participation in violent behaviors; to delay initiation of sexual activity; and to improve social skills” (Hanlon, Simon, Grady, Carswell, & Callaman, 2009).
HEARTS	Provide academically-enriching experiences to at-risk African-American middle school students in Florida (Respress & Lutfi, 2006).
21 st CCLC	Provide academic enrichment opportunities to students across the US in out-of-school hours (U.S. Department of Education, 2016).
Focused Curricula	
Éxito	Support ninth- and tenth-grade students who are at risk of dropping out of high school (Hartmann, Good, & Edmunds, 2011).
All Stars	Prevent harmful behaviours among adolescents, and to help adolescents succeed (All Stars Prevention LLC, 2016).
PREP	Substance use/violence prevention (Sale et al., 2012).
Mate-Tricks	Improve personal development and social outcomes in children aged 9 and 10 who were enrolled in fourth grade in Dublin, Ireland (O’Hare, Biggart, Kerr, & Connolly, 2015).

1. WINGS

The WINGS program aims to improve the social and emotional skills, attendance, behaviour, and academic performance of the young people it serves (WINGS for Kids Inc., 2013). There are 30 learning outcomes embedded in the WINGS curriculum that are intentionally linked to each activity. WINGS operates largely in Charlotte, North Carolina, Atlanta, Georgia, and across the state of South Carolina, serving a diverse population of students in Kindergarten to Grade Six. WINGS schools are located in low-income, predominantly African-American, disadvantaged, neighborhoods with high dropout rates (one in two for males and one in four for females) (Canadian Active After School Partnership, accessed Jan 15th, 2017; WINGS for Kids Inc., 2013).

WINGS operates three hours a day Monday-to-Friday. A different learning objective is featured each week. There is a standardized program model, and staff are often recruited from local colleges and undergo more than 65 hours of rigorous training; staff to student ratios are one to twelve at most (WINGS for Kids Inc., 2013). There are five main components of WINGS: Community Unity, Choice Time, Academic Center, WINGSWorks and WildWINGS. For specifics regarding each individual component see [Appendix B](#).

Evaluation Evidence:

WINGS was part of a RCT during the 2010–2011 school year where researchers from Virginia University compared the introduction of a structured curriculum during the Choice Time portion of WINGS and the original WINGS model. This particular RCT compared 42 students participating in regular Choice Time activities such as dance, sports, or arts, with 45 students participating in the Minds In Motion (MIM) curriculum, a more structured form of Choice Time activity (Grissmer et al., 2013). There was no attrition in this RCT (Grissmer et al.,

2013). The MIM curriculum focused on improving executive functioning, visuo-spatial, and mathematic skills in the form of structured design-copy activities. The RCT concluded that children who participated in the more structured MIM Choice Time activities significantly outperformed their regular WINGS Choice Time counterparts (Grissmer et al., 2013). The following, statistically-significant ($p < 0.01$) improvements were found: the sample of children moved from the 27th percentile to the 51st percentile in executive functioning skills, from the 33rd to 47th percentile in visuo-spatial skills, and from the 32nd to 48th percentile in mathematic skills (Grissmer et al., 2013). This led to the MIM curriculum being permanently embedded into Choice Time activities.

While the above-noted RCT did not speak to the program as a whole, it did provide evidence that a small but significant portion of the program created great improvement for some of the most disadvantaged children in the area. A number of less rigorous and qualitative monitoring studies have also been done, indicating improvements in self-esteem, anxiety levels, academic performance, classroom behaviour and attachment to schools (WINGS for Kids Inc., 2013). Yale University is currently conducting a large-scale RCT analyzing the WINGS program as a whole. Of all the programs and curricula reviewed here WINGS is by far the most comprehensive — providing academic, physical activity, and community outreach programming. Understanding the impact of this program will be crucial for ASP policymakers and programmers.

2. Village Model of Care Curriculum

The Village Model of Care ASP was designed by African-American professionals to provide a culturally sensitive prevention intervention for at-risk, inner-city, African-American students entering middle school. This ASP is grounded in the social developmental model,

highlighting the roles that risk and protective factors can play in initiating deviant behaviour in at-risk children and youth (Hanlon et al., 2009). The program focuses on issues and topics relevant to African-American culture and heritage in the US, ultimately guided by the ancient African proverb, “It Takes a Whole Village to Raise a Child” (Hanlon et al., 2009). Additionally, the program aims to support improved academic achievement.

The program is implemented with sixth-grade youth and their primary caregiver(s) in Baltimore City, over the course of the school year for four days per week. It includes three key components: structured group mentoring, parental empowerment and support services, and community outreach services. For specifics regarding each individual component see [Appendix B](#).

Evaluation Evidence:

One quasi-experimental study was conducted to evaluate the impact of the Village Model of Care program with the hypothesis that compared to no ASP, the Village Model of Care program would be associated with positive outcomes in behavioural adjustment and academic performance at one-year follow-up (Hanlon et al., 2009). This evaluation was conducted over a four-year intake period. Male and female Grade Six students were recruited at the beginning of the school year in two schools, which were largely African American (Hanlon et al., 2009). After the recruitment one of the two schools was designated as the comparison group and the other hosted the Village Model of Care ASP. Baseline measures were conducted at the beginning of the school year and then a follow up was conducted 12 months later; at the comparison school no ASPs were run for the duration of the 12 months (Hanlon et al., 2009). Questionnaires were completed by students, parents and teachers, and grade point averages (GPAs) and levels of parental engagement were also assessed (Hanlon et al., 2009).

A total of 532 students were recruited throughout the four years and a total of 478 were available for their one-year follow up assessments. The overall results were that the Village Model of Care program was positively associated with academic achievement and behaviour outcomes in terms of GPAs and teacher ratings (Hanlon et al., 2009). Difference between intervention and control groups GPAs were statistically significant at $p < 0.001$, however no effect sizes were reported (Hanlon et al., 2009). Additionally, it was found that the more involved parents were in the child's programming the better the outcomes, a finding supported by other research in the field (Hanlon et al., 2009). Quality of parental involvement was classified as either "good to excellent" or "fair to poor." When these classifications were taken into consideration the student GPA increases were 4.38 ± 5.08 for those where parents had "good to excellent" quality involvement and 2.53 ± 5.27 for those where parents had "fair to poor" quality involvement; this was a significant difference at $p < 0.009$ (Hanlon et al., 2009). While there were significant improvements for the intervention group in terms of GPA, there were no statistically significant outcomes in any of the other tested areas. Further evaluations are needed to determine the long-term effects of the Village Model of Care program.

3. HEARTS Family Life Center Curriculum

The HEARTS Family Life Center is sponsored by the Office of Minority Health of the US Department of Health and Human Services and aims to provide academically-enriching experiences to at-risk African-American middle school students in Florida (Respress & Lutfi, 2006). The students involved in this program are deemed to have the greatest risk for academic and social failure.

The HEARTS curriculum is grounded in evidence around whole-brain development. Research suggests that it is crucial to provide opportunities to connect both the left and right

hemispheres of the brain when providing learning opportunities (Respress & Lutfi, 2006). This curriculum is therefore designed emphasize experiential learning while incorporating the fine arts. There are four art areas that the program focuses on and based on Student Interest Surveys students are enrolled in one of art, drama, music or dance.

Each of the four modules focuses on the art area of interest but also integrates opportunities for students to improve basic academic skills such as reading, writing and mathematics. The premise of this model is that students are able to engage in activities that are of interest to them while receiving further academic support through activities such as creative writing, phonics tutorials, computer-assisted learning, and one-on-one assistance (Respress & Lutfi, 2006).

Evaluation Evidence:

A quasi-experimental, pre- and post-test design was used to evaluate the HEARTS program. A total of 66 middle school students in Grades Six to Eight were put in either the intervention or comparison groups, and 57 students completed both the pre- and post-testing periods (Respress & Lutfi, 2006). Four major outcomes were evaluated: academic achievement, self-esteem, commitment towards schools, and reduced propensity towards violent acts (Respress & Lutfi, 2006). These four outcomes were evaluated by analyzing changes in students GPAs; math and writing scores; the Rosenberg Self Esteem Scale; the Attitudes towards School measure; and a Violence Risk Assessment (Respress & Lutfi, 2006). The improvement in GPA and math and writing scores for the intervention group was found to be statistically significant ($p < 0.05$), along with improvements in self-esteem (Respress & Lutfi, 2006). However, the differences in attitudes towards school and violence risk reduction were not found to be statistically significant (Respress & Lutfi, 2006). Overall the HEARTS program is promising for

increasing academic achievement and self-esteem in at-risk youth, but more evaluation is needed to better understand the program's effects on commitment to school and violence risk reduction.

4. 21st Century Community Learning Centers (CCLC)

The 21st CCLC was initiated in 1998 as a part of the Elementary and Secondary Education Act in the US and was reauthorized in 2001 as a part of the No Child Left Behind Act (U.S. Department of Education, 2016). The purpose of these programs is to provide academic enrichment opportunities to students across the US in out-of-school hours (U.S. Department of Education, 2016). There has always been a particular focus on providing programs to high-poverty and low-performing schools. The program operates by providing grants to State Education Agencies who then, if successful, provide sub-grants to Local Education Agencies and community non-profits. A total of \$1.2 billion was granted in awards for the 2016-2017 school year to 52 ASPs (U.S. Department of Education, 2016). Unfortunately, there are no standard programming guidelines for the 21st CCLC and therefore it is difficult to highlight particular elements as being key to these programs. The funding for these programs is widely dispersed across the US and as long as basic criteria are met (i.e., providing programming for disadvantaged children and youth who are at risk of academic failure), programs receive funding. There has been controversy in terms of program quality in the past and more stringent evaluation requirements are being developed.

Evaluation Evidence:

One particular evaluation of four 21st CCLC programs was conducted using a quasi-experimental design and included two programs in rural areas (Bienville Parish School System and Grant Parish School System) and two in urban areas (the Big Buddy programs in Baton Rouge and at the University of New Orleans in New Orleans) (Jenner & Jenner, 2007).

Statewide-standardized test scores from Fall and Spring were used to evaluate these four programs; using available data allowed the researchers to form a comparison group for their evaluation (Jenner & Jenner, 2007). A total of 259 participants of the 21st CCLC programs were included in this analysis as well as 933 non-participants; females were over-represented in the participant group, as were minority students (mainly African-American) (Jenner & Jenner, 2007). This particular evaluation method has no loss to follow up. One important way that participants and non-participants differed, in addition to their minority status, was in their academic achievement levels; overall, participants had lower academic achievement levels across all subject areas (Jenner & Jenner, 2007). This is important as the key outcome for this evaluation was academic achievement; Jenner and Jenner (2007) say that this was what policymakers were most concerned with regarding the 21st CCLC funding.

The first question of interest for this study was whether participants demonstrated improved Spring test scores when compared to non-participants. Regression analysis showed this to be true, highlighting that the achievement gap was being narrowed (Jenner & Jenner, 2007). An overall Cohen's *d* effect size of 0.13 was found, which is significant when considering the small amount of time participants actually spend in ASPs, something the researchers hoped would highlight the importance of investment in quality ASPs (Jenner & Jenner, 2007). The next question of interest was whether different programs had different effects on their participants, which the evidence suggests did happen (Jenner & Jenner, 2007). While this finding is interesting, the authors did not explain and there is no description of the four programs included in this article, so the information is not helpful for determining promising practices. The third question was whether certain groups benefit from the 21st CCLC programs more than others; the research suggests that minority participants are mainly the primary beneficiaries of the programs

(Jenner & Jenner, 2007). The final question was whether intensity of participation (i.e., number of days per year) influenced overall academic growth. Jenner and Jenner (2007) found that participation in 30 to 59 days and 60 plus days had the greatest impact on academic growth.

5. Éxito Curriculum

In Spanish, the word Éxito means success. The Éxito program was first launched during the 2008–2009 school year in a large neighborhood high-school in a low-income, largely Latino area of Philadelphia (Hartmann et al., 2011). The program aims to support ninth- and tenth-grade students who are at risk of dropping out of high school. The area that Éxito operates in is particularly troubled with dropout rates — with schools in these neighborhoods experiencing dropout rates of up to 21% each year (Hartmann et al., 2011). Grounded in research on out-of-school-time programs, Éxito provides a project-based ASP and case-management to a targeted group of students.

The Éxito model consists of three main approaches: targeted recruitment of students showing early warning signs of dropout, project-based learning ASP, and case-management to those with the greatest need of support. The program operates four days a week. Targeted recruitment is a large part of how Éxito functions. Students who show at least one of the four ‘early warning indicators’ are actively recruited for the program (Hartmann et al., 2011), see [Appendix B](#). Once recruited into the program students participate in the project-based learning intervention. Project-based learning groups are self-selected at the beginning of the school year. The students remain in the same group for the entirety of the year. The final part of Éxito is case-management, group activities are supplemented by more individualized support for those in the most need.

Evaluation Evidence:

A longitudinal quasi-experimental study was conducted to evaluate this program after two years. This study compared students enrolled in the second year of the *Éxito* program to those at the same host schools who were not enrolled; an equal number of comparison and intervention students (112) were recruited, with no loss to follow-up (Hartmann et al., 2011). Using logistic regression models the evaluators wished to determine if *Éxito* participants were more or less likely to have key early warning signs for later dropout. This model showed that *Éxito* participants were significantly less likely to fail math (OR = 0.984, $p < 0.043$), and less likely to have less than 80% attendance rates (OR = 0.966, $p < 0.003$) (Hartmann et al., 2011). When the case-management students were removed from this model the *Éxito* participants were also significantly less likely to fail English (OR = 0.970, $p < 0.014$) and significantly more likely to be promoted to the next grade (OR = 1.06, $p < 0.040$) (Hartmann et al., 2011). The researchers highlight six key program elements that contributed to these outcomes, and label these elements as best practices. Although they did not make their decision processes explicit, the authors labelled the following six elements as “best practices”: school-based staff and program activities; open enrollment with targeted recruitment; supportive program climate; relevant hands-on activities; opportunities for success; and individualized support and monitoring (Hartmann et al., 2011). Further evaluations of this program are needed to highlight how these particular elements are contributing to the overall success of those enrolled.

6. All Stars Curriculum

The All Stars Curriculum is a prevention-based program that aims to change lives by helping children and youth succeed (All Stars Prevention LLC, 2016). This curriculum has three versions — elementary, middle and high school. Each version targets students’ social and

cognitive development. All Stars is often integrated into ASP for at-risk youth, the largest version of All Stars is the middle-school program (All Stars Prevention LLC, 2016). While it is not mandatory, it is highly recommended that program coordinators take part in the All Stars training prior to implementing the curricula. The training is facilitated by a skilled trainer and can be done online for a fee (All Stars Prevention LLC, 2016).

There are two main program goals in All Stars: to prevent harmful behaviours among adolescents, and to help adolescents succeed (All Stars Prevention LLC, 2016). Ten major concepts are addressed throughout the programming to help achieve these goals, see [Appendix B](#).

Evaluation Evidence:

A number of studies have been conducted on programs using All Stars; however, only one met the inclusion criteria for this review. An RCT was conducted in Baltimore County, Maryland during the 2006–2007 school year wherein the experimental group was enrolled in an ASP that used All Stars (Gottfredson et al., 2010). A total of 447 students were randomized at five schools in Baltimore to intervention or treatment-as-usual (no formal ASP) groups (Gottfredson et al., 2010). Five total data sources were used for analysis, with the primary one being the student post-test survey, which 416 students completed (Gottfredson et al., 2010). Eight student outcomes were analyzed: unsupervised socializing, positive peer influence, school bonding, social competence, prosocial/antidrug attitudes, school attendance, academic performance and conduct problems (Gottfredson et al., 2010). Of these eight, the one that showed significant differences between control and intervention groups was unsupervised socializing ($p < 0.01$) (Gottfredson et al., 2010). This highlights that this particular ASP was not

robust enough to positively influence academic performance or overall behaviour of the youth involved.

7. PREP After-School Program Curriculum

The PREP program was developed by Discovering Options, a St. Louis not-for-profit community-based organization in 2001 to help fill the void of free programming for high-risk children in some of St. Louis's most impoverished neighborhoods (Sale et al., 2012). The program is a substance use and violence prevention program operating during the after-school hours in elementary schools for fourth- and fifth-grade students. The population in the area where PREP operates comprised mostly African-American families with a median family income of approximately \$20,000 and with over 90% of children involved in PREP receiving free or reduced-cost lunches at school (Sale et al., 2012). The students at the participating schools perform, on average, three times worse than their counterparts in the state of Missouri (Sale et al., 2012). Students are recruited for PREP through a two-step process that involves both registered social workers and school staff. For specifics on this process see [Appendix B](#).

The PREP program model is focused on experiential learning activities, social skills training and substance use and violence prevention lessons. For examples of these experiential learning activities see [Appendix B](#). Structured behaviour management is integrated into all program activities (Sale et al., 2012). A key feature to help reduce associated barriers involves transportation being provided for children both to attend the program location and to return home afterwards. The current program model includes ten weeks of programming, two hours per day, four days per week (Sale et al., 2012).

One final but crucial aspect of PREP is the educational and professional requirements for the staff. PREP only employs licensed clinical social workers with training in working with at-

risk youth or practicum students who are in masters-level social work programs. This rigorous level of training ensures that staff are able to cater to the very specific and often high level of needs for the children that are involved.

Evaluation Evidence:

PREP was evaluated using a cohort-comparison design where four cohorts of 88 fourth- and fifth-grade students enrolled in PREP were assessed using pre- and post-tests then compared (Sale et al., 2012). The overall study retention rate was 93% (Sale et al., 2012). The outcome of interest for the PREP program is improved social skills for the students involved; specifically this study looked at social cooperation, social interaction, and social independence (Sale et al., 2012). The data showed that overall, students enrolled in the 85-hour version of PREP, with one-on-one case-management and therapeutic support, showed significant ($p < 0.05$) improvements in these social skills, whereas those enrolled in the traditional PREP program without the extra support showed no improvements in social skills (Sale et al., 2012). This finding highlights that the after-school-only program model may not be successful in achieving its goal of improving social skills without the added one-on-one case management.

8. Mate-Tricks Curriculum

The Mate-Tricks program was an ASP that aimed to improve personal development and social outcomes in children aged nine and ten who were enrolled in fourth grade in Dublin, Ireland. Mate-Tricks combined two existing programs — the Supporting Families Program (SFP) and the Coping Power Program (CPP). The SFP is an internationally-recognized violence-prevention program that is categorized as a “promising” program, which is a second tier classification within the Blueprints Program for Violence Prevention — indicating that they have been evaluated numerous times but do not have RCT evidence supporting their effectiveness

(O'Hare et al., 2015). The CPP is also a promising program in the area of personal and social skill development (O'Hare et al., 2015).

The program operated as a one-year, multi-session ASP two days a week and included fifty-nine child, six parent, and three family sessions across the school year (O'Hare et al., 2015). There were specific training requirements for program facilitators, which included separate training on both SFP and CPP as well as training on the Mate-Tricks program model, and basic first aid and health and safety training.

Evaluation Evidence:

An RCT was conducted on the Mate-Tricks program using a rolling cohort design over three years, with new participants joining the cohort each year, 2008-2011(O'Hare et al., 2015). The participants of this RCT were recruited from eight different primary schools in Dublin, the control group received no formal ASP (O'Hare et al., 2015). Pre- and post-test measures were implemented to assess prosocial and antisocial behaviour amongst the participants. Ultimately this RCT actually found adverse effects for the children involved, with antisocial behaviour increasing on two of the four measures for the intervention group (O'Hare et al., 2015).

There are important lessons in these findings. The literature supports that implementation factors are key to the success of ASPs, and due to this the authors anticipated more positive results as Mate-Tricks has sufficient adult supervision, and well-prepared and trained staff (O'Hare et al., 2015). Ultimately the researchers speculate that the key reason for the adverse results was the overall lack of parental participation in the programming, which is in line with other evidence suggesting that programs with high degrees of parental involvement, such as the Village Model of Care program, lead to better outcomes (O'Hare et al., 2015). The researchers highlight the importance of rigorously piloting and evaluating ASPs as well as implementing

them with a high degree of care to ensure that these adverse effects are avoided (O'Hare et al., 2015).

Results: General Recommendations

Four main program elements were discussed throughout the five articles that provided a more general overview of ASPs for disadvantaged young people: participation, staff training and credentials, curriculums, and adult/community involvement. One of the most widely discussed determinates of program success was participation. At a high level it has been found that students who participate in programming more often see the greatest improvements (Lauer, Wilkerson, Apthorp, & Snow, 2006; Mahoney et al., 2005). Quality contact time between the students and program staff has been associated with positive uses of free time after school and increased engagement in learning activities, both in and out of the ASP (Lauer et al., 2006). However participation alone is not enough to produce the greatest effects. Mahoney et al. (2005) highlight the importance of meaningful, high levels of engagement in ASPs. To achieve the highest levels of meaningful engagement, programs should be interesting, challenging and enjoyable for their participants (Mahoney et al., 2005). Participation and engagement rates are important to consider when offering programming for disadvantaged or at-risk children and youth because historically these groups show the lowest levels of participation in ASPs (Greenberg, 2013; Yu, Newport-Berra, & Liu, 2015). A variety of barriers are present for these populations, the largest being cost and lack of connection (culturally-, religiously- or interest-related) to the programming. To reach these populations it is important that programs be offered at no cost to participants and that there is an intentional connection to the demographics of the population of interest (Greenberg, 2013; Yu et al., 2015). Yu et al. (2015) suggest that incorporating physical activity or sporting

opportunities into the programming is a good way to increase interest in traditionally academic-focused ASPs while also increasing physical activity rates.

The remaining three key elements discussed were the importance of high-quality staff, structured curricula, and adult/community involvement. Two separate articles highlighted the importance of having high-quality staff; this typically means employing college-educated individuals who have experience working with disadvantaged or at-risk populations in the education sector, and providing specialized training specific to program needs (Lauer et al., 2006; Mahoney et al., 2005). The same two articles highlighted the importance of having standardized curricula, which staff are trained in — both indicating that ASPs with these curricula have greater impact (Lauer et al., 2006; Mahoney et al., 2005). Additionally, Lauer et al. (2006) point out the importance of incorporating social and behavioural skills training into these curricula. One final review looked at the impact of having meaningful adult and community involvement in ASPs for high-risk junior high students. This review found that having such involvement helped to foster better school and community environments and increased student engagement both in the ASP and in their outside lives (Nelson, McMahan, & Torres, 2012).

Results: Identified Promising Practices in After-School Programming

In this literature review, a number of promising practices were identified — through searching for commonalities across programs that were proven to be effective (WINGS, Village Model of Care, HEARTS, 21st CCLC, Éxito, and All Stars). If three or more evaluations showed statistically-significant results using a particular program element this element was considered to be a promising practice. PHAC suggests three key elements when identifying promising practices — medium to high impact, high potential for adaptability and moderate quality of

evidence (Public Health Agency of Canada, n.d.). Each of the promising practices identified here fits into two of these three categories, and these programs are meant to be very context specific so adaptability may not be as feasible. These promising practices can be grouped into the following areas: recruitment strategies, staffing requirements/procedures, and curricula/program models. A summary of these promising practices, including where there are programs that illustrate these promising practices and other articles that highlight their importance, can be found in [Table 4](#).

Table 4. Identified Promising Practices

Promising Practice	Supporting Evidence
Recruitment Strategies	
Rigorous, targeted recruitment (i.e., only recruiting children/youth who are considered vulnerable).	<u>Programs that use:</u> WINGS, Village Model of Care, HEARTS, Éxito, PREP, CSV.
Staffing Requirements/Procedures	
Teachers or individuals with education or social work backgrounds.	<u>Programs that use:</u> Éxito, PREP, CSV. <u>Other supporting articles:</u> (Lauer et al., 2006; Mahoney et al., 2005)
Minimum of college education	<u>Programs that use:</u> Village Model of Care. <u>Other supporting articles:</u> (Lauer et al., 2006; Mahoney et al., 2005)
Rigorous, standardized curriculum specific training required.	<u>Programs that use:</u> WINGS. <u>Other supporting articles:</u> (Lauer et al., 2006; Mahoney et al., 2005)
Curricula/Program Models	
Standardized curricula	<u>Programs that use:</u> WINGS, Village Model of Care, HEARTS, Éxito, All Stars, PREP, CSV. <u>Other supporting articles:</u> (Lauer et al., 2006; Mahoney et al., 2005)

Incorporates academic and social/ emotional/ behavioural skills training.	<u>Programs that use:</u> WINGS, Village Model of Care, HEARTS, PREP, CSV. <u>Other supporting articles:</u> (Lauer et al., 2006)
Provides culturally-appropriate programming and/or programming of interest to specific demographic; ensuring high degree of engagement.	<u>Programs that use:</u> Village Model of Care. <u>Other supporting articles:</u> (Greenberg, 2013; Mahoney et al., 2005; Yu et al., 2015)
Incorporates physical/recreational activities.	<u>Programs that use:</u> WINGS, Village Model of Care, PREP, CSV.
High frequency of programming (at least 3 days per week).	<u>Programs that use:</u> WINGS, Village Model of Care, HEARTS, PREP, CSV (Burnaby program).
Long duration of programming (operates for the duration of the school year).	<u>Programs that use:</u> WINGS, Village Model of Care, HEARTS, CSV.
Parent/guardian and/or community involvement.	<u>Programs that use:</u> WINGS, Village Model of Care. <u>Other supporting articles:</u> (Nelson et al., 2012)

Results: Canada SCORES Vancouver – How a Local Example Matches Up

Returning to the ultimate inspiration for this capstone project, a comparison of the CSV model was conducted. This comparison will help CSV highlight where they are doing well and where they can improve programming to support some of BC’s most disadvantaged children and youth. An overview of the program and highlights of where they are aligning with promising practices is presented below.

CSV is an ASP operating in Burnaby and Surrey, BC. CSV’s mission is to “inspire urban youth to lead healthy lives, be engaged students, and have the confidence and character to make a difference in the world” (Canada SCORES Vancouver, retrieved Jan 25th, 2017). The CSV

model is based on the America SCORES model and incorporates three components: soccer, poetry, and community service projects. CSV operates in elementary schools in Burnaby and Surrey with large numbers of disadvantaged students due to: low socioeconomic status, single-earner families, English as a second language, being new immigrants, coming from a refugee family, and/or having a variety of learning difficulties. The participants are aged eight to 12 years and ethnically diverse. Many of the students involved in CSV experience challenges that would typically be associated with communities experiencing high poverty and crime rates. The program runs two to five days per week, depending on the school, for a total of 90 minutes. In the five-day model the program includes two days of soccer training emphasizing sportsmanship, teamwork, and healthy active lifestyles. Two days are spent on in-class instruction with a focus on literacy, creative writing, presentation and public-speaking skills. Depending on the time of year this is where the poetry or the community service components of the program come into play. The final day of the week is a game day where the participants are given the opportunity to showcase the soccer skills they have been fostering throughout the week.

While the CSV program has not undergone a formal evaluation they are keen to do so. It is clear that the CSV model is unique in that it offers a comprehensive program for disadvantaged youth with a strong focus on social and emotional skill building. A review of their program model was conducted and highlights how they are aligning with promising practices identified here. This review was conducted through a thorough assessment of CSV's program curriculum documents as well as observations and conversations with key CSV staff. After collecting key information regarding the program model/curriculum a comparison was done with the above literature review findings. Some of the key areas where CSV is consistent with promising practices include: providing programming to a specific group of vulnerable children;

ensuring that program staff have education training (i.e., are teachers or education assistants); using a standardized curriculum with a strong focus on social and emotional learning; incorporating physical/recreational activities; and operating with high frequency/duration (in the Burnaby programming). Moving ahead to conduct a rigorous evaluation would be beneficial for better understanding the effects of the CSV program; however knowing that CSV is following promising practices is reassuring.

Discussion

Limitations

A notable limitation for this capstone is that studies were only identified through online databases. Any studies or articles that were not available in Education Source, ERIC or PsycINFO would have been missed. While these are the best database sources for literature on this topic, it is likely that there are other studies or articles that may not have been published or included in these three databases. One way to overcome this limitation would be to reach out to organizations that offer ASPs in Canada and the US to see if they could provide access to any evaluations they have undertaken. Another would be to search through the grey literature.

Policy Implications

Reviews like this are important for a number of reasons including: they provide roadmaps for planners who are developing new programs or organizations who are currently offering programs and may wish to improve them; and they provide a foundation for policymakers, particularly regarding funding of programs. As mentioned, this review focused on targeted programs, supporting proportionate universalism. There are many universal ASPs out there but ultimately a mix of universal, targeted, and clinical programs is the best way to meet the needs of

disadvantaged children and youth (Offord et al., 1998). ASPs in Canada lack an overall source of funding. Considering the federal-provincial division of responsibilities, with education falling within provincial jurisdiction in Canada, the provinces should be concerned with funding these types of initiatives. Appealing for funding from philanthropic or corporate donors is another option for ASPs; however, this creates risk of compromising the visions and missions of ASPs. In the US the 21st CCLC offers funding to many ASPs; however, as was found in this review, they do not have a rigorous set of program standards in place. Moving forward, it is important that the potential of ASPs is better understood across Canada. A number of ASPs are offered across the country and there are communities of practice being formed in various regions, including BC, where knowledge and experiences are shared amongst program leaders; however, the importance of these ASPs still is not well appreciated. No Canadian studies were found in this review, which is concerning but not surprising. Due to the overall lack of support for ASPs across the country, many programs are forced to seek donor funding from a variety of sources, which makes securing funding for formal evaluations particularly difficult. Without this funding there are serious constraints for ASPs, as these programs typically do not have the capacity to run rigorous experimental or quasi-experimental design evaluations. This overall lack of support for evaluations of ASPs was further highlighted throughout this review as no logic models or rigorous methods for continuous monitoring and evaluation were presented for the identified programs. We are stuck in the continuous loop of not having enough evidence available for policymakers regarding the planning and funding of ASPs and not having enough funding for ASPs to produce such evidence.

This review highlights the need for future research on ASPs, particularly in Canada. To achieve this, more funding sources will need to become accessible to ASPs. Schools have

potential as health promotion centres — that is often untapped. Many schools are public facilities that are left vacant for two thirds of the day and in the summer, so increasing programming options in schools could greatly reduce costs associated with ASPs and help reduce inequalities within communities. There are opportunities for funding from the education and health sectors to be diverted to ASPs. This could take the form of concerted efforts regarding healthy children and youth, using the school system as a key target environment. In BC we see such efforts through initiatives like Healthy Schools BC, where funding is provided from the health sector to work with the education sector to promote health in schools.

The evidence from this capstone highlights that programs need to be comprehensive — focusing on more than just academic achievement and including social and emotional skill building — in addition to being culturally appropriate. In the Canadian context this is particularly important for First Nations children and youth who maybe particularly disadvantaged. To best serve this group extensive consultation with Aboriginal educators and Elders would be needed. A blanket approach to ASP, which is not contextually aligned to the target population, is not an option. A funding source like the 21st CCLC, but with more rigorous program standards, is needed in Canada to help support our most disadvantaged populations. A team of expert bodies such as PHAC, Joint Consortium of School Health and Physical and Health Education Canada would best lead this from an expertise and governance standpoint with funding ultimately coming from provincial governments.

Critical Reflection

Through the process of preparing this capstone project I have had time to really reflect on my experience in the MPH program as a whole. I often felt like the program was going by so quickly that it was difficult to really contextualize or appreciate the vast amounts of information that was being provided. This project started long before this capstone paper came together, through connections I had made throughout my course work, and the very inspiring practicum placement I had the opportunity to participate in, I was fortunate enough to come in contact with CSV who ultimately inspired me to take on this project. I knew from the beginning that I wanted my capstone to be of value to someone in practice and my passion for school health promotion was reaffirmed throughout my practicum placement so I knew that this review would be the best capstone option for me, and after completing it I still feel this way. I have learned a lot about myself throughout this process, namely that I am really interested in how evidence is produced and distributed for school health promotion programs. Often in the educator sector there is limited capacity and resources for smaller community level programs to engage in rigorous evaluations and therefore it is difficult to provide evidence for such programming. This is something that I hope I can make a difference in in the future.

The MPH program is a very fast paced, comprehensive program and I am happy to see this culminating experience pull many of my courses together, including my methods courses, health promotion courses, and program planning and evaluation course just to name a few. My methods and program planning and evaluation courses laid the foundation for me to be able to understand and critically appraise the research evidence around ASP, and my health promotion courses and practicum placement gave me a richer understanding of the contexts in which these ASPs are run. Having the time to reflect on the program overall has really highlighted just how

comprehensive the program is, often I felt bogged down in the course work and this project, in conjunction with my practicum placement and relationship with CSV, really allowed me to put my skills to work.

I am hopeful that this project will prove to be quite useful for organizations like CSV and that it has laid the groundwork for future work I'd like to explore in terms of seeing quality ASPs more widely available in Canada. If I was to do this project again I would want more time and resources to be able to collaborate with experts in the field, consult with my colleagues, and actually do some reaching out to the organizations that are offering some of the quality programs that I had identified in the review. I think that this would have given me the opportunity to better understand the challenges of undergoing rigorous evaluations in the ASP world and the strategies that these programs employed to be able to achieve such evaluations. I hope to be able to explore this further in my future career opportunities. Sharing this type of knowledge with others in the field would be a big step towards ASPs engaging in evaluations more regularly.

Overall this was an extremely rewarding and inspiring process and I am excited to see where this work will lead me. I am grateful to have had the opportunity to be exposed to this work and know that my future will continue to be in the school health promotion field.

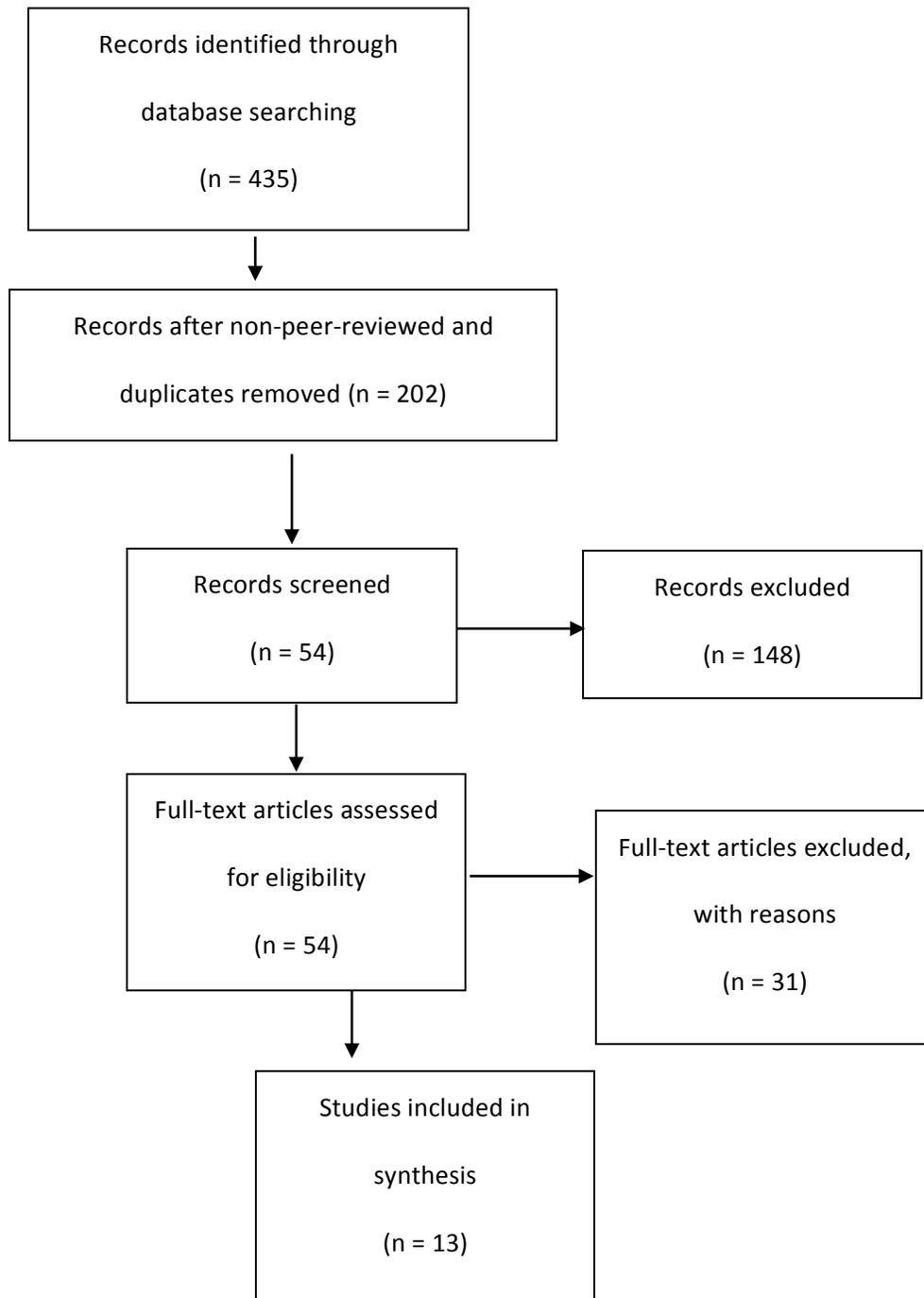
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Appendix A: Modified PRISMA Diagram



Appendix B: Summary of Program Elements

Curriculum	Target Population	Staffing Requirements/Procedures	Curricula/Program Model
WINGS	<p>Kindergarten to Grade 6 students.</p> <p>All are at-risk, low income and predominantly African-American with high dropout rates.</p>	<p>Staff to student ratio – 1:12 at most.</p> <p>Extensive curriculum specific training required for staff.</p>	<p>Operates Monday to Friday, 3 hours per day, total of 450 hours per school year.</p> <p>30 key learning objectives, each week there is a new objective of focus.</p> <p>Five main components:</p> <ul style="list-style-type: none"> - Community Unity: welcome, a meet-and-eat with a nutritious snack, circle activities, and good news and announcements. - Choice Time: twice a week for 40 minutes - group of electives including dance, sports and arts - Academic Center: 40 minutes - homework support and assistance - WINGSWorks: community service - students have the weekly opportunity to

Curriculum	Target Population	Staffing Requirements/Procedures	Curricula/Program Model
			<p>participate in community service and school-building activities</p> <ul style="list-style-type: none"> - WildWINGS: which involves 90 minutes of games and role-playing on Fridays - relationships between thoughts, emotions and actions are emphasized. <p>Nutritious snack is provided daily. Large focus on homework support and community service.</p> <p>Minds in Motion Curriculum integrated into the Choice Time activity to increase visuo-spatial, mathematic and executive functioning skills.</p>
Village Model of Care	At-risk, inner-city African American students entering middle school (i.e. 6 th grade students) and their primary caregiver(s).	<p>Almost all staff are African American who typically grew up in the same community or have ties to the community.</p> <p>Recruited from colleges in the area (recent graduates and current</p>	<p>Curriculum developed by African American professionals – culturally appropriate.</p> <p>Operates four days per week over the course of the school year.</p>

Curriculum	Target Population	Staffing Requirements/Procedures	Curricula/Program Model
		<p>students).</p> <p>Mentors work in pairs with groups of 20 students.</p>	<p>Three key program elements:</p> <ul style="list-style-type: none"> - Group mentoring: Study-skill exercises, discussions about self-control and careers and community opportunities, and recreational/social activities - Parental empowerment and support services: family gatherings, teleconferenced mentorship sessions and family newsletters - Community outreach services: engage community volunteers and at least twice during the there are organized field trips for the families involved that are both educational and recreational <p>Active parent/guardian engagement is key.</p>
HEARTS	At-risk African American middle school students in Florida.	Information not available.	Academic focus through arts programming (i.e. art, drama, music and dance).

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	<p>Students have the greatest risk for academic and social failure.</p>		<p>Each art area incorporates opportunities to improve reading, writing and mathematic skills.</p> <p>Additionally, mentoring sessions (individual and group), service learning projects, and youth advisory boards are incorporated. These activities focus on stress management, conflict resolution, anger management, and peer meditation, and allow students to interact with their community in a meaningful way</p>
21 st CCLC	<p>Disadvantaged youth across the US who are at high risk of academic failure.</p>	<p>Information not available.</p>	<p>Information not available.</p>
Éxito	<p>9th and 10th grade students in a low-income, largely Latino area of Philadelphia who are at risk of dropping out of high school.</p>	<p>Trained professionals (i.e. social workers) operate the case-management arm of the program, managing up to 15 students at a time.</p>	<p>Operates 4 days per week, for the entire school year.</p> <p>Three main approaches: targeted recruitment, project-based</p>

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	<p>Students must show at least one of the following four ‘early warning indicators’ to be recruited for the program:</p> <ul style="list-style-type: none"> • 80% attendance or less in 8th grade • Failure in math • Failure in English • Two or more suspensions in 8th or early 9th grade 		<p>learning, and case-management for highest need students.</p> <p>The students select their project-based learning module at the beginning of the year, options include: art, music, Latin percussion, culinary arts, graphic arts, storytelling, robotics and entrepreneurship.</p> <p>Case management is offered to students with highest needs, typically those experiencing serious mental health concerns or behavioural challenges and/or having troubling family/peer related issues at home.</p>
All Stars	Three separate programs for elementary, middle and high school at-risk students.	Program specific training, from a skilled program staff, is offered (not mandatory) at a cost.	<p>Aims to prevent harmful behaviours among adolescents, and to help adolescents build bright futures.</p> <p>Ten major concepts are embedded into all three of the programs, they are: beliefs about</p>

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			consequences, bonding, commitment to not use or reduce use, decision making and impulsivity control, goal setting, idealism, norms, parental attentiveness, resistance skills training and self-management.
PREP	<p>High-risk children in St. Louis in grades 4 and 5.</p> <p>Large proportion of African American students, with over 90% of them receiving free or reduced-cost lunches at school.</p> <p>Students are recruited through a two-step process: (1) school staff identify the most behaviorally and academically challenged students and refer them to PREP, (2) social workers conduct home visits to determine overall level of risk.</p>	PREP only employs licensed clinical social workers that have had training in working with at-risk youth or practicum students enrolled in masters level social work programs.	<p>10 weeks of programming with 2 hours of programming per day for 4 days per week.</p> <p>Focus on experiential learning activities such as cultural cooking, yoga, art, social skill development, conflict resolution lessons, recreational activities, substance use and violence prevention lessons, with a structured behaviour management program integrated into all program elements.</p> <p>Program days always begin with outdoor play, then a healthy snack, then progress to the activity of the day, and close with relaxation exercises.</p>

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	<p>Students are only enrolled in PREP if they poses risk factors in two or more domains: individual, family, peer, school, neighborhood, and community.</p>		
Mate-Tricks	<p>Children aged 9-10 enrolled in 4th grade in Dublin, Ireland. Parents and families were actively involved.</p>	Information not available.	<p>Focused on violence prevention programming. Utilized a combination of two other evaluated programs (Strengthening Families Program and the Coping Power Program).</p>
Canada SCORES Vancouver (CSV)	<p>Students in grades 4 and 5 who are vulnerable due to: low socioeconomic status, single earner families, English as a second language, being new immigrants, coming from a refugee family, and/or having a variety of learning difficulties.</p> <p>Ethnically diverse population identified and</p>	Leaders within the school (i.e. teachers and education assistants) are volunteer program staff.	<p>Three main components: soccer, poetry and community service.</p> <p>Program runs 2-5 days per week for 90 minutes. The five-day program includes 2 days of soccer training (emphasizing sportsmanship, teamwork and healthy active lifestyles), 2 days of classroom instruction/ community service (i.e. poetry or community service projects with a focus on literacy, creative</p>

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	referred by school staff.		writing and public speaking skill development), and 1 day as a game day for showcasing the students' soccer skills.