

**TOWARD THE INTEGRATION OF EDUCATION  
AND SCHOOL-BASED BEHAVIOURAL SUPPORTS:  
THE B.E.S.T. PROGRAM IN NORTHERN NOVA SCOTIA**

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**ABSTRACT**

Emotional behavioural disorders (EBD) in school-aged children are significant and serious issues affecting a global population. This study is an examination of the Behavioural Education Support and Training Program (B.E.S.T.), a school-based program centered on psychosocial rehabilitation for children with EBD. The program is based in eight elementary schools across the Chignecto Central Regional School Board (CCRSB) in Northern Nova Scotia. Historical quantitative data were utilized to analyze students' emotional and behavioural functioning in classrooms, playground, cafeteria, and/or related environments within each school. The study results expand upon existing descriptive and quasi-experimental studies that demonstrated the importance of longitudinal intervention, the effectiveness of integrated therapy, and progressive change in educational systems. The study data showed that school-based intervention for children with EBD has positive results for decreasing behavioural dysfunction.

*Keywords:* emotional behavioural dysfunction, children, schools, support, treatment

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**List of Abbreviations**

ADHD	Attention-deficit/hyperactivity disorder
ASD	Autism spectrum disorder
ASCA	Adjustment Scales for Children and Adolescents
ASEBA	Achenbach System of Emotional Behavioural Assessment
B.E.S.T.	Behaviour effective support team
CAMET	Council of Atlantic Ministers of Education and Training
CAST	Child and Adolescent Mental Health Services and School Together
CBT	Cognitive behaviour therapy
CCRSB	Chignecto Central Regional School Board
CDS	Conduct Disorder Scale
COPE	Community Outreach in Pediatrics/Psychiatry and Education Program
CCT	Child-Centered Therapy
CD	Conduct disorder
DBT	Dialectical behaviour therapy
DESSA	Devereux Student Strengths Assessment
DPICS-R	Dyadic Parent–Child Interaction System–Revised
<i>DSM-5</i>	<i>Diagnostic and Statistical Manual–5</i>
EBD	Emotional behaviour disorder
ECBI™	Eyberg Parent Behaviour Inventory™–Severity and Problem
FBA	Functional behaviour assessment
FTE	Full time equivalent

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GRADE	Grading, Recommendation, Assessment, Development, and Evaluation Approach
MFPG	Multi-Family Psychoeducational Groups
ODD	Oppositional defiant disorder
OPESU	Ontario Public Services Employees Union
PATHS®	Promoting Alternative Thinking Strategies
PBIS	Positive Behaviour Intervention and Support
PEBS	Positive Effective Behaviour Support Program
RAASI™	Reynolds Adolescent Adjustment Screening Inventory™
RCT	Randomised Control Trial
REBT	Rational Emotive Behaviour Therapy
SDQ	Strengths and Difficulties Questionnaire
SESBI-R™	Teacher Behaviour Rating Scale–Severity and Problem
SSBS	School Board Behaviour Scale
SSIS	Social Skills Improvement System
SSRS	Social Skills Rating System
SWPBS	School-Wide Positive Behaviour Support
TOCA–C	Teacher Observation of Classroom Checklist



## **Chapter 1. Introduction**

Many school communities have been working towards implementing methods to improve the availability of programs and adopt youth-driven approaches to meet the growing needs of students with EBD. As children's needs in the school environment have continued to intensify, experts in the fields of education and school psychology have worked on developing preventative, school-based interventions to minimize emotional and behavioural dysfunctions while looking for effective strategies to implement universal supports. Ludlow (2011) acknowledged that helping children in a way that supports learning outcomes, and provides a safe environment, continues to be a critical issue facing schools. Layered over all of these difficult challenges lies the difficulty of sustaining positive efforts as student populations become more diverse and the need for specialized programming continues to increase. Both within and outside school, the availability of appropriate mental health care for children in Canada does not come close to meeting the need (Kutcher, 2011).

Mental illness occurs among children of all ages and in all school environments. Research by S. Lee et al. (2009) indicated that emotional and behavioural disorders have become as commonplace as a fractured limb; not inevitable, but not at all uncommon. The majority of mental health problems originate in childhood and up to one in five children suffer from a diagnosable mental disorder; school-aged children can experience mental health difficulties that cause significant problems (Barwick et al., 2005; Government of Canada, 2006; Health Canada, 2002). A great deal is known about what should be done to improve the development, organization, and delivery of mental health

care for children, yet there is a gap between what is known and what is being done in Nova Scotia and the rest of Canada (Kutcher & McLuckie, 2013; Schwean & Rodger, 2013; Whitley, Smith, & Vaillancourt, 2013).

### **1.1 Statement of the Problem**

Meta-analyses of research on school-based EBD intervention programs revealed research has been conducted on the topics of early intervention, prevention, and site-based treatment (Calear & Christensen, 2010). In-depth reviews by the Canadian Institute for Health Information (2009) and the Government of Nova Scotia (2013) highlighted concerns about children's inability to access timely specialist appointments with pediatricians, emergency room crisis response teams, and regional mental health clinics. The Government of Nova Scotia (2012c) published "Together We Can: The Plan to Improve Mental Health and Addictions Care for Nova Scotians," in which it outlined the need for increased funding and access to the Izaak Walton Killan Hospital (IWK) for urgent care, emergency department, and secondary community based mental health services. Kutcher (2011) suggested significant changes be made to the IWK Child Protection Program and tertiary care to better service children and families in need of mental health supports throughout the province of Nova Scotia.

Current behaviour supports programming in Nova Scotia's schools allows for alternative systems and approaches to intervention when dealing with EBD-challenged students. The Mental Health Commission of Canada (2009) identified schools as an important venue for mental health activities and indicated such programming was important; however, debate on the strengths and weaknesses of each approach is evident

in the literature (Bergin & Bergin, 2014; E. L. Brown, Powell, & Clark, 2012). Due to the growing challenges children with EBD present to parents, caregivers, schools, and related professionals, it is necessary to determine effective supports that promote high quality emotional, behavioural, and academic relationships (Sugai, Horner, & Gresham, 2002). The Behavioural Effect Support Team (B.E.S.T.) is one such support program and has been adopted at eight elementary schools in Nova Scotia since 1999.

School-based emotional and behavioural support programs that provide strategies to advance and support children are endorsed with little empirical evidence to validate the claims that negative student behaviours can be addressed and adjusted. Substantial research illuminates many factors affecting the implementation of evidence-based mental health promotion programs in schools, but research on how schools plan to sustain their investments in these programs is limited (Boyle & Georgiades, 2009; Goldman, Stamler, Kleinman, Kerner, & Lewis, 2016; Leadbeater, Gladstone, & Sukhawathanakul, 2015). It is essential that additional research be conducted to assess the validity of programs such as B.E.S.T. to determine if the models of intervention aid children with EBD.

### **1.2 Purpose of the Study**

The purpose of this study, in which secondary historical quantitative data was used, was to examine the success of school-based clinical intervention for EBD within eight B.E.S.T. elementary schools located in Northern Nova Scotia. This study provides the first evidence of the effectiveness of a school-wide positive behavioural support (SWPBS) program in Nova Scotia and adds to the work of McIntosh, Bennett, and Price (2011), who published the only other Canadian study in Kamloops, British Columbia.

Student success was defined as a decrease in problematic behaviours at school. The Canadian Institute for Health Information (2009), Rouquette et al. (2014), and Leadbeater et al. (2015) demonstrated the study of children with EBD deserves special attention as studies examining the relationship between mental health issues in early elementary aged children and school success have not been substantively conducted in Nova Scotia and other Canadian provinces. Therefore, the objectives of my study were: (a) to investigate whether children with EBD who received school-based clinical intervention demonstrated a greater decrease in conduct problems post-intervention compared to students not receiving clinical programming; and (b) to determine if clinical staff, teachers, and parents reported a greater decrease in conduct problems in Tier 2 (classroom-based) and Tier 3 (tertiary care) students with EBD-related conduct dysfunctions post-intervention compared to students not receiving clinical programming. Historical quantitative data already obtained by the CCRSB were used to study students' emotional and behavioural modifications within school environments.

### **1.3 Theoretical Framework**

Student programming within B.E.S.T. schools has been influenced by Dewey's (1938) emphasis on educating the whole child and the principle of multi-systemic intervention. For interventions to have optimum impact on changing behaviour, the systems involved in the child's life must work together to identify and influence each other. Multi-systemic intervention for youth with emotional challenges highlights the need for "social-ecological theory and includes treatment considerations at the individual, family, peer, school, and community levels" (Prout & Brown, 2007, p. 16). The B.E.S.T.

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schools are specialized within the CCRSB and have a high level of need for individual program planning, behaviour modification, autism supports, and counseling.

Drawing upon social constructivist and postmodern perspectives, multidimensional care models for children with EBD emphasize process, plurality of both knowledge and voice, possibility, and the relational quality of knowledge as key elements in treating behaviourally disturbed children (Climie, 2015; E. A. Skinner & Pitzer, 2012). Within the multi-dimensional approach, the child is viewed as the center of a variety of interacting systems and treatments are aimed at various systems simultaneously to impact the individual. The importance of longitudinal intervention and the superiority of integrated therapy conditions need to be embraced by more stakeholder agencies (Prout & Brown, 2007).

To understand child behaviour social constructivist perspectives, focus must be placed on how children learn through interactions with others to classify their world and place within it (Palincsar, 2005). Intervention aimed at these various systems emphasizes children's motivation to learn and change dysfunctional behaviours. Underlying theories including self-efficacy theory (Bandura, 1958), self-worth theory (Covington & Beery, 1976), attachment theory (Ainsworth & Bell, 1970), and achievement goal theory (Diener & Dweck, 1978; Dweck & Elliot, 1983) can occur simultaneously and can ultimately impact the individual and family (Prout & Brown, 2007). Children are seen as social beings who interact with each other as well as the physical world. In this view, children develop their understanding of their environment and themselves from social interactions

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and these understandings shape their subsequent social interactions (Hutchison & Charlesworth, 2003).

The B.E.S.T. model conceptualizes children's development as requiring a nurturing process whereby adults model for, and counsel, youth as they learn to process emotions and behave in an acceptable manner (M. Beck, 1999). Examples of this nurturing include role playing with students, demonstrating good manners, and highlighting caring acts of kindness in the classroom setting. School-aged children need not only nurturing but also discipline. Discipline is the process wherein children learn to behave within a normal set of parameters, meet reasonable expectations, and understand the consequences of inappropriate behaviours (J. A. Anderson, McIntyre, Rotto, & Robertson, 2010). The goals of nurturing and discipline within the B.E.S.T. model include student self-discipline; acceptable functional behaviour; and demonstrating respect for themselves, others, the classroom environment, and the community. Emphasized in the framework is that all children need both nurturing and discipline if they are to become functioning members of their homes, society, communities, and schools (Kutcher, 2011; Santor, Short, & Ferguson, 2009; Southam-Gerow & Prinstein, 2014).

Over the last two decades, the enactment of public policy and services in Nova Scotia and Canada attempting to provide supports has decreased the number of inappropriate emotional and behavioural incidents in children. This has been well-documented by the Nova Scotia Department of Community Services (1999), the Nunn Commission Inquiry (Nunn, 2006), Koocher and College (2008), Davidson and Coniglio

(2013), and Leblanc, Parkington, Varatharasan, Donato, and Bilsbury (2013). The authors of these studies demonstrated limitations to services and concluded that educational and community practices did not meet the needs of children who displayed aggressive, acting-out behaviours. For the situation to change, institutions working with children need structures, processes, administrators, teachers, and support staff to apply the knowledge, skills, and experience necessary to work effectively with students with EBD (Waddell, Offord, Shepherd, Hua, & McEwan, 2002). The challenge to B.E.S.T. schools and the CCRSB is to address efficiently how best to deliver accessible and effective mental health care to children, realizing that this may require a system-wide transformation of the historical approach to this issue.

### **1.4 Definition of Childhood**

Cannella and Kincheloe (2002) suggested that biologically the timeframe of childhood includes the stages of birth to puberty. The United Nations Convention of the Rights of the Child (United Nations, 1989) defined a child as a human being below the age of 12 years, unless physical or emotional maturity is attained earlier. In developmental psychology, childhood is divided into toddlerhood, early childhood, middle childhood, and adolescence; periods of time in which changes occur in cognitive functioning, deductive reasoning, abstract thinking, and the ability to engage in greater consideration of others' perspectives (Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2010). Germine, Duchaine, and Nakayama (2011) suggested childhood is a time of significant brain development that affects self-control, judgment, emotions, and organization, and that it continues into puberty. When childhood development is

successful, the result is a biologically mature individual equipped with the capacity to form relationships and possessing the psychological resources necessary to face the challenges of pubescent life. For the purposes of this study, childhood, children, or child will be defined by typical elementary school chronological ages of 5–11 years, Grades Primary–6 inclusive.

### **1.5 EBD in Children**

The terms found within the literature encompassing EBD include seriously emotionally disturbed, behaviourally disordered, socially maladjusted, emotionally deviant, socially disabled, psychologically impaired, emotionally handicapped, and, most recently, emotionally behaviourally disordered (Austin & Sciarra, 2010). Although many definitions of behavioural disorders appear in the literature, at present there is no standard used by professionals (Brigham & Bakken, 2013). The *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM–5*; American Psychiatric Association, 2013) contains categorizations of a number of internalizing and externalizing disorders that would be considered a part of EBD but falls short of defining this condition for professionals working in schools. Work by Bower (1969), and revisions by the United States Department of Education (Education of All Handicapped Children Act, 1975), have had the greatest impact on the field. According to Belfer (2008), and Merikangas and He (2014), EBD refers to a condition exhibiting one or more of the following characteristics over a long period of time that adversely affects educational performance to a marked degree. Bower (1969) suggested EBD be defined as



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(a) an inability to learn which cannot be explained by intellectual, sensory, and health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c) inappropriate types of behaviours or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression; or (e) a tendency to develop physical symptoms or fears associated with personal or school problems. The term includes children who are schizophrenic. The term does not include children who are socially maladjusted unless it is determined that they are seriously emotionally disturbed. (p. 386)

For most children, the first occurrence of EBD usually takes place early in development, yet little is known regarding distal longitudinal factors that might promote engagement in these behaviours (Leblanc et al., 2013). The purpose of EBD appears to be affect or emotion regulation and management of distressing thoughts; acting out is hypothesized to bring a level of psychological and physiological tension back to a manageable state (Grizenko & Pawliuk, 2010). Children may lack the cognitive capacity to understand their emotional or behavioural dysfunction and be unable to recognize the connections. It is important to emphasize that the presenting symptomology associated with children with EBD is likely to be complex and mixed in origin. Cognitive, biological, hormonal, trauma, and social factors were noted by Gargiulo (2012). It has been suggested in the literature reviewed that children's emotional and behavioural actions in many disorders are maintained by several reinforcement processes that include intrapersonal and interpersonal negative reinforcement, and intrapersonal and

interpersonal positive reinforcement (J. A. Anderson et al., 2010; Bieling, Israeli, & Antony, 2004).

Underlying causes of, and motivations for, EBD may include a distraction from problems, an aversion to delay, or an effort to alter responsiveness to frequency, attractiveness, or the probability of rewards. Brauner and Stephens (2006) suggested children with EBD are vulnerable to the development of lasting problems affecting many areas of their lives, including their social relationships, academic and later professional success, tolerance of frustration or failure, and self-esteem. There is no standardized test for EBD as there is for intelligence or academic achievement, but standardized behaviour rating scales and procedures for observing and evaluating problem behaviours are available (Kauffman & Landrum, 2009a). Adding to the complexities of many disorders included in EBD are significant life changes that occur during this period of rapid development (Slater, 2012). The disorders and individual experiences exist on a continuum from mild to extreme.

### **1.6 Prevalence and Proximal Risk Factors**

Prevalence rates of childhood EBD are inexact due to a lack of *DSM-5* (American Psychiatric Association, 2013) diagnostic criteria. Researchers frequently classify EBD as a developmental issue. Research indicates that EBD occurs in approximately 1%–4% of children, has early onset, has greater severity in males, is nonspecific with respect to race or culture, and occurs at slightly higher rates in low socioeconomic conditions (Egger & Angold, 2006; Nevid, Rathus, & Greene, 2010; Offord et al., 1987). Chen and Shepherd (2009) suggested children are vulnerable to EBD due to a combination of

significant life changes that occur during this period of rapid development. The complex etiology of EBD can be summarized as a product of culture, unconscious processes, trauma, life events, and environmental triggers. Many factors carry unequal weights and are naturally varied and diverse, but when categorized include psychiatric conditions, environment, genetics, temperament, and psychological influences. Buckley (2009) indicated there is a clear correlation of familial and biological causes, but researchers are uncertain if this is caused by genetic endowment, environment, or both (Mental Health Commission of Canada, 2009).

Axelrod, Zhe, Haugen, and Kline (2009) suggested that estimations of the rate of common childhood EBD are lacking in studies examining psychiatric symptoms and disorders in this age group. Maskey, Warnell, Parr, Le Couteur, and McConachie (2013) completed an extensive literature review that revealed estimates of the number of children suffering from serious emotional and behavioural problems vary significantly depending on study purpose, methodology for selection of population, and criteria used to diagnose disorders or identify functional impairment. Harrison and Oakland (2003) suggested professionals need to apply adaptive assessments of children's functioning. The ICD-10 Disability Scale (World Health Organization, 1992) can be used to complete thorough assessments of medical, psychiatric, and family history while analyzing previous episodes of injury. Direct clinical assessment is essential to the completion of valid diagnosis and treatment. Detailed assessment, screening, and evaluation are important to identifying irregular development and thus appropriate levels of treatment. Brigham and Bakken (2013) advocated the use of neurological and neuropsychological

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assessments when working with children with EBD. The Mental Health Commission of Canada (2009) stressed the importance of accurate risk assessment and diagnosis in treatment options. Family assessment is also fundamental to the overall success of intervention.

Although childhood is a period of increased risk for problems, it represents an important window of opportunity to ensure optimal brain development and life-long wellbeing. P. K. Smith, Cowie, and Blades (2015) suggested critical windows for learning, emotional, and behavioural development have important implications for educators/parents. The Mental Health Commission of Canada (2012) stated that appropriate and timely environmental stimuli are crucial for the brain to develop to its fullest potential. In the B.E.S.T. Program, these concepts are utilized within a perspective of child development in which each phase of a student's life presents heightened developmental tasks, need sensitivities, crises, and opportunities for new learning (Schonert-Reichl et al., 2015).

The period of development for social, emotional, and behavioural skills occurs early in life when a child's genetic heritage interacts with the environment to influence personality traits (Dowling, 2014). Many factors in a child's development and psychosocial changes related to the individuation process carry unequal weights and are naturally varied, but when categorized will include psychiatric conditions, genetics, personality, and psychological influences. Additional risk factors include substance abuse during gestation, family history of mental illness, sexual abuse in childhood, abandonment, foster care, group homes, and a child protective services history of

elopement and apprehension (Rosenburg, 2012). Rosenburg (2012) suggested the effects of individuation are most disruptive during early childhood and are characterized later in life by increased conflicts, parenting difficulties, and diminished marital satisfaction. These changes are hypothesized to contribute to the transformation of the parent–child relationship.

In a review of literature, Bakker, Ormel, Verhulst, and Oldehinkey (2010) indicated that a nurturing environment can help children build connections that promote emotional and behavioural stability. In contrast, negative experiences such as neglect or abuse can result in a child who lives with emotional and mental health issues and is unable to form healthy attachments to others. Research that examines potential variables contributing to child development and risk factors is greatly needed (Beatch et al., 2008; Kostewicz & Kubina, 2008; Senate of Canada, 2006; Thompson & Morris, 2016).

### **1.7 Difficulties Associated with EBD**

EBD negatively affects day-to-day functioning and academic, behavioural, social, environmental, and life outcomes for children. Students experience a variety of problems with academics including higher dropout rates, grade retention, and failure to attain post-secondary education (Mihalas, Morse, Allsopp, & Alvarez McHatton, 2009).

Behavioural difficulties and social problems center on imbalances in peer and adult relationships and role performance. Bertrand and Pan (2013) found children with EBD were often recommended for exclusion from general education settings, which strongly affected their academic performance. These children often experience an inhibited ability to communicate due to internalizing and externalizing disorders that hinder social skills

(M. Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). Classmates may reject children with EBD due to problem behaviours and, at times, aggression. Rejection and neglect can lead to the development of further problem behaviours or association with deviant peer groups (Keiley, Lofthouse, Bates, Dodge, & Pettit, 2003). It is not uncommon for students to have environmental risk factors that include low socioeconomic status, exposure to violence, problematic parent–child relationships, and a lack of cognitive resources. For example, problems such as hyperactivity and aggression can lead to externalizing behavioural concerns that affect academic and social development (Stormont, 2000). The problems of children with EBD continue in life after graduation because not many children with EBD who graduate from high school attend any form of post-secondary education. Rates of unemployment for EBD graduates range from 25–52%, and a significant number of students with EBD have been arrested at least once within 2 years of graduation (Sutherland & Wehby, 2001).

### **1.8 Summary Hypotheses**

The primary hypothesis of this study is that children participating in the school-wide B.E.S.T. program within eight elementary schools in Northern Nova Scotia will demonstrate a significant decrease in conduct problems post-clinical intervention. Secondly, it is hypothesized that clinical staff, teachers, and parents will report an increase in positive behavioural outcomes post-intervention as compared to pre-intervention. The results and discussion will address:

1. B.E.S.T. students' profiles 2009–2012,
2. services provided to B.E.S.T. students 2009–2012,

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3. regional school rule infractions 2009–2012,
4. ECBI™ Parent Behaviour Rating Scale–Severity and –Problem 2009–2012,
5. SESBI–R™ Teacher Behaviour Rating Scale–Problem and Severity 2009–2012,
6. satisfaction survey results–parents and teachers 2009–2012, and
7. trends in school profile indicators, limitations, future research, recommendations to enhance program efficiency in resource allocation, clinical best practices, and pathways for future growth.

## **Chapter 2. Literature Review**

In this chapter, the historical background of EBD programming for children in Canada is presented. A review of clinical models that include community, medical, and educational components is conducted. An overview of children's motivation and learning applied to the change of dysfunctional emotions and behaviours is discussed.

### **2.1 Historical Background of EBD Programming in Canada**

It has long been recognized that psychological health and wellbeing directly affect a child's physical health, quality of life, and ability to learn. Although children have a tremendous capacity for resiliency, their chronological ages, developmental stages, and reliance on others may leave them vulnerable to serious psychiatric problems. Research involving the experiences of clinical professionals revealed that elementary school-aged children have both higher rates, and more severe manifestations, of mental illness than was believed only a generation ago (Government of Nova Scotia, 2012a).

To help inform my study a review was conducted to identify historical, national, and best practices for school-based support of EBD in children. This review included journals accessed through a range of databases including PubMed, Medline, PsychInfo, PsychTests, and PsychArticles. Databases were searched using various combinations of search terms (e.g., *emotional and behavioural disorders in children, mental health disorders in children, maturation of change, intrinsic and extrinsic motivation, barriers to change, school-based interventions for children, best practices, school-based therapy, clinical treatment, counseling, psychological treatment, and psychotherapy*). In addition, a manual search was conducted for relevant reports, websites, and articles.



Although not well-chronicled, programming for children with EBD within Canadian school systems has paralleled that of the United States. Within the research literature a number of models and theoretical approaches to treatment of EBD have emerged (biogenic, psychodynamic, psychoeducational, humanistic, ecological, behavioural, and social-cognitive) (Solomon, Klein, Hintze, Cressey, & Peller, 2012). A synthesis of peer-reviewed literature revealed only four Canadian studies related to EBD in children (Boisjoli, Vitaro, Lacourse, Barker, & Tremblay, 2007; Clarke, Balance, Bosetti, & Archer, 2002; Hundert et al., 1999; McLennan, Reckford, & Clarke, 2008). In Canada and the United States, the delivery of treatment based on various models has been instituted at home, in schools, and in communities, and has consisted of a variety of service options. These models have generated much debate regarding the most beneficial and appropriate treatments for children. Claveirole and Gaughan (2011) demonstrated a clear understanding of what it takes to improve the social and academic performance of children living with EBD and highlighted the importance of children's social contexts, family structure, and psychological development. The authors provided a detailed summary of deterrents (self-harm, depression, suicidal ideation, abuse, eating disorders, early-onset psychosis, ADHD, ASD, misuse of substances) related to the day-to-day social and academic functioning of children with EBD. Similar knowledge and understanding was previously highlighted in key reports such as the Nunn Commission Report, "Spiralling Out of Control: Lessons Learned from a Boy in Trouble" (Nunn, 2006), and "Our Kids Are Worth It—Strategy for Children and Youth" (Government of Nova Scotia, 2007).

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The roots of school-wide comprehensive behaviour programming can be found in the writings of late 20th-century educators such as Dewey (1938). The programming lent itself to the creation of positive school climates in which students felt free to express themselves and learn. Adelman and Taylor (2006) found that effective behaviour supports increase schools' capacities for creating positive teaching and learning environments while reducing the occurrence of problem behaviours. The focus of school-wide programming is relationship-based with an emphasis on both identifying and creating programming that focuses on the whole child and is not limited specifically to academic ability (Schaps, Battistich, & Solomon, 2004). Children who feel that they are valued members of a community of learners may experience the power of choice derived from an internal locus of control and might consequently be more likely to eschew violence and antisocial behaviour (Osher, Bear, Sprague, & Doyle, 2010). As Dewey (1938) observed, an effective school is realized by the degree to which individual students form a group.

Research by E. Cohen, Jovcevska, Dennis, and Sanjay (2011) supported interconnected systems intervention for youth. The authors highlighted the need for the application of social-ecological theory and included treatment considerations at the individual, family, peer, school, and community levels (Lawson & Lawson, 2013; Ungar, Ghazinour, & Richter, 2013; Waddell, Wong, Hua, & Godderis, 2004). Evidence provided by the Canadian Council on Learning (2009) indicated that a well-designed program of interconnected systems cooperation positively influences an array of social, health, and academic outcomes. The Council recommended that isolated intervention be

discarded as member agencies move towards sharing information and promoting interactive responsibilities in settings least intrusive to school-aged clients. The investment of time and effort by those implementing, managing, and funding school mental health programs requires a collaborative effort in order to achieve notable improvements in elementary children's emotional and behavioural functioning (Kilpatrick & Holland, 2003; Price & Lear, 2008).

**2.1.1 Canadian studies.** The literature reviewed reveals an increasing trend in collaboration between mental health systems and schools in Canada. However, substantive evaluations of collaborative Canadian programs do not exist, as those identified are predominantly reports and reviews produced by school boards and provincial government departments (Fluery, 2010; Fowler, 2013; Leblanc et al., 2013; Saskatchewan Rivers School Division, 2007). Although these documents are examples of a considerable body of work that reinforces the need to promote and support child mental health in public school systems, they also expose a gap in the research literature that I intend to begin to fill via this study.

Interventions or programs designed to address EBD are intended to help students get along with one another while enhancing communication between home and school. Families and school staff should be provided training and support related to managing children's behaviours. Families seek help and school staff require assistance in fostering interagency partnerships (Mueller, Bassett, & Brewer, 2012). Overall, the extant research literature suggests that successful school-based interventions targeting behavioural dysfunction in children must address the complex and multi-dimensional nature of these

problems and require multi-modal approaches. These include a combination of psychological and educational treatments that are empirically supported for their effectiveness in addressing the needs of children with EBD (J. A. Anderson et al., 2010). Layered over all of these challenges lies the difficulty of sustaining positive efforts given staff turnover, changing demographics and enrollment, and curriculum demands.

The Tri-Ministry Project (Hundert et al., 1999) was a longitudinal trial carried out over a 5-year period to assess the effectiveness of class-wide social skills training, partner reading, and a combination of both to reduce maladjustment among children in the primary division (up to Grade 3) of Ontario schools. The trial was undertaken between 1991 and 1995 with 60 schools in 11 boards of education assigned randomly during the study. Detailed assessments of observations, ratings, and standard tests on 2,439 children contributed to the evaluation database (Hundert et al., 1999). The authors used three-level growth trajectory models to evaluate program effectiveness and found there were statistically significant increases in prosocial behaviour observed in the playgrounds of intervention schools and a reduction in teacher and parent-rated externalizing problems; the combination of social skills training (SS) and partner reading (RE), or SS alone may have had modest beneficial effects. Hundert et al. (1999) reviewed nine other school-based studies in which universally delivered mental health prevention programs in general populations of students were evaluated, revealing similar but mixed results.

The Montreal Longitudinal Experimental Study (Boisjoli et al., 2007) was used to assess the long-term impact and clinical significance of a 2-year multi-component preventive intervention on criminal behaviour and academic achievement, using

intention-to-treat analysis. The study targeted disruptive and aggressive boys who were considered at risk of later criminality and low school achievement ( $n = 250$ ), identified from a community sample  $N = 895$  (Boisjoli et al., 2007). Participants were randomly allocated to an intervention or control group. The remaining sample ( $n = 645$ ) served as the low-risk group. The intervention was multimodal and focused on boys, parents and guardians, and teachers. Significantly more boys in the intervention group (13%;  $p < 0.05$ ) completed high school graduation and generally fewer (11%;  $p = 0.06$ ) had a criminal record compared with those allocated to the control group (Boisjoli et al., 2007). The researchers concluded early preventive intervention for those at high risk of antisocial behaviour is likely to benefit individuals.

McIntosh et al. (2011) studied key components of evaluation plans and described a framework for increasing the effectiveness of SWPBS in the Kamloops, British Columbia school district. The board was a midsized urban public school district with 49 schools and approximately 15,000 students. Twenty-six percent of the schools in the district were implementing SWPBS when the study began (11 elementary [Grades K–7] and one secondary [Grades 8–12]); nine of them had been implementing the program for 5 years or longer (McIntosh et al., 2011). To document what steps the district was taking to grow and sustain SWPBS in the district, the authors examined the process of implementation with an evaluation plan that included a number of questions. The first question focused on action planning at the district level. To document this information, the district leadership team used the *Implementers' Blueprint and Self-Assessment* (Sugai et al., 2005) twice per year, examined the number of action plan goals the team had met,

and recorded which schools were receiving training and technical assistance (McIntosh et al., 2011).

The results of the study showed that there were many supports in place within the district such as training, coaching, and a district leadership team that aided in the successful implementation of the program. McIntosh et al. (2011) found that most schools had implemented SWPBS with moderate to high fidelity, which resulted in a decrease in the level of office referrals and additional behaviour support, and an increase in academic achievement. These data were used by the district team to identify schools that were in need of support services. The results are encouraging and show that when implemented with fidelity, SWPBS improved behaviour, achievement, and school safety in this district (McIntosh et al., 2011).

Clarke et al. (2002) provided an overview of the social policy and research context for the development of innovative partnerships in school-based settings in the province of Alberta, Canada. Clarke et al. (2002) studied a pilot program in which a full-time school-based mental health nurse was employed by one Alberta school district in one school in an urban setting and another in a semirural environment, to provide assessments, referrals, case management, and interventions for children. Quantitative and qualitative outcomes for both programs were presented by the authors. A clinical case review revealed 66% of the 131 students who participated in 1 school year experienced improvement. Clarke et al. (2002) highlighted opportunities in innovations in existing systems of mental health care, along with the critical elements of partnership necessary to ensure sustainability and ongoing program efficacy (e.g., effective coordination of

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resources at the intake screening level and the provision of specialist resources early in the process of identification). The results showed that a collaborative identification model that improves the capacity of all the stakeholders, a strong component of family support and empowerment, and continued patience and perseverance to work through issues are all critical in sustaining effective student health partnerships (Clarke et al., 2002).

The Community Outreach in Pediatrics/Psychiatry and Education (COPE) program provided consultation to families and schools throughout the elementary school system in the Calgary and Rocky View School Districts in Alberta, Canada. Participating schools referred prioritized children with emotional, behavioural, and/or developmental problems to an interprofessional screening process and physician-based assessment within the school setting which involved the child, family, and key school stakeholders. COPE was initially a pilot demonstration project through the Primary Health Care Transition Fund in Alberta in 1998–2000 that aimed to (a) identify children with emotional and behavioural problems early, (b) provide early medical consultation and provision of comprehensive assessment of psychosocial and health status to better match needs and interventions, (c) improve access and linkage to existing health and mental health services, (d) achieve more effective utilization of health and education resources to identify and direct children to more appropriate interventions, and (e) improve psychosocial outcomes for children served by the program (McLennan et al., 2008). Following assessment, a school-based plan was developed and children and families were linked to support services. The study highlighted research specific to mental health

intervention for children and stimulated discussion of mental health service delivery in a Canadian context.

McLennan et al. (2008) noted that as a result of the pilot demonstration project, partnerships were forged between the Calgary Board of Education and the Calgary and Area Child and Family Services Authority, which allowed the clinical component of the demonstration project to continue to deliver services to students. The program also spread to cover all elementary schools within the Calgary Catholic School District, the Rocky View School Division (a district composed of a larger horseshoe-shaped jurisdiction around Calgary), and the independent schools of the Calgary Rocky View area (McLennan et al., 2008).

Two pertinent non-Canadian studies were identified in the peer-reviewed literature. Child and Adolescent Mental Health Service and School Together (CAST) was an Australian program focused on the early identification and treatment of behavioural disorders in children (Corboy & McDonald, 2007). CAST stressed early identification, assessment, professional development of staff, class-based strategies, home support, and a variety of therapeutic techniques for treatment. Using a conceptual model of school-based implementation (developed by Greenberg, Domitrovich, Graczyk, & Zins, 2005), the wide array of factors that can affect successful implementation at the school level were identified, and those elements critical to implementation quality were examined by the authors. Qualitative interviews with a sample of 69 school personnel across 16 government and Catholic primary schools in the City of Ballarat and wider Grampians region of Victoria were used to identify both challenges and positive



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attributes of the program, including implementation (Corboy & McDonald, 2007).

Positive support by staff and an interest in promoting mental health strategies for children within the schools were highlighted. Aspects that impacted negatively on the implementation process were lack of parental engagement, lack of classroom follow up in some schools, inadequate level of readiness and preplanning by the schools, and the unavailability of technical support (Corboy & McDonald, 2007).

Walrath, Bruns, Anderson, Glass-Siegal, and Weist (2004) explored the nature of expanded school mental health services in Baltimore City, which at the time of the study were incorporated into 40% of the city's public schools. The Fast Track Program used a combination of universal classroom supports and community oriented resources to target antisocial behaviours in school-aged children. Walrath et al. (2004) used a provider survey that was distributed to expanded school mental health clinicians to gather information about the characteristics of service providers and recipients, types of services being provided, and service providers proposed outcomes. The authors reported clinicians drew attention to an impressive service capacity, augmentation of traditional school-based services, and the continual need for increased mental health service hours in their buildings. The results indicated lower rates of conduct problems in the intervention group at the 3-year follow up (Conduct Problems Prevention Research Group, 2000).

The studies reviewed were important for the empirical advancement of the study of EBD in children, but did not fill the need to address real-world programs targeting mental health services within Nova Scotia and Canadian elementary schools. Although the studies provided professionals valuable learning opportunities in a limited context,

more information is needed concerning mental health programming within Nova Scotia's schools. It is important to note that both organizational and funding differences for child mental health and school-related resources vary among Canadian provinces. My study was used to characterize a unique school-based mental health intervention for early elementary students in Nova Scotia, Canada.

**2.1.2 Canadian programs.** A review of the pertinent literature reveals few comparable programs in Canada in which EBD modification and supports have been implemented for students in Grades Primary–12 (Kutcher & McLuckie, 2013; Leblanc et al., 2013). The scopes of the models (behaviourism, constructivism, cognitive) differ in age levels that are targeted for intervention and the extent to which psychological services at schools are funded outside of normal parameters. Common to the programs based on these models is the foundation of techniques shown to be effective with individual students and families (Horner, Sugai, Todd, & Lewis-Palmer, 2005). Common Canadian models include Saskatchewan's Toward School Plus model (Government of Saskatchewan, 2008), the Integrated Service Delivery model (Government of New Brunswick, 2010), the Healthy Schools model (Government of Manitoba, 2011), Ontario's Taking Mental Health to School model (Government of Ontario, 2011), and the Schools Plus model (Government of Nova Scotia, 2012c).

The origins of Toward School Plus can be found in Government of Saskatchewan literature in the early 1990s. Precursor initiatives included Saskatchewan Education's "Directions: The Final Report" (1984), Saskatchewan Education Training and Employment's Working Together to Address Barriers to Learning–Integrated School-

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Linked Services for Children and Youth at Risk (1994) and Partners in Action (Saskatchewan Education Training and Employment, 1991), Saskatchewan Association of School Councils' (1997) Involving Parents and Community in Schools, and the Saskatchewan Council on Children's Second Report (1998) and Comments and Recommendations to the Role of the School Task Force Interim Report to the Minister of Education Government of Saskatchewan (Saskatchewan Association of School Councils, 2000). The School Plus model in Saskatchewan emphasized school as a community hub where children's learning activities contribute to local community development and community activities enrich learning activities (Rossiter, 2007).

In Saskatchewan, the Toward School Plus model served as a template to assist schools and health authorities creating integrated services (Government of Saskatchewan, 2008). The provincial taskforce (comprised of representatives from Community Resources and Employment; Corrections and Public Safety, Culture, Youth and Recreation; Government Relations and Aboriginal Affairs, Health, Justice, and Education) made recommendations regarding the role of schools. In 2001, the Government of Saskatchewan developed a comprehensive education model titled School Plus. In 2002, the Government of Saskatchewan published *Securing Saskatchewan's Future: Ensuring the Wellbeing and Educational Success of Saskatchewan's Children & Youth*, specifying objectives for the future. Then, in 2006, a provincial School Plus Program was implemented across the province of Saskatchewan (Saskatchewan Learning, 2004b).

The Toward School Plus model operates on a mandate of interagency cooperation and includes psychological therapy for children of all ages. Community school stakeholders recognized that students who are physically, socially, and emotionally competent tend to succeed academically (Saskatchewan Learning, 2004b). The initiative includes a framework for school-based specific planning in which schools act as the primary site for the allocation of resources. The School Plus model promotes learning success and wellbeing for every child and young person (Provincial Youth Delegation, 2003). The implementation of the School Plus model has taken place throughout the province, including major urban centers such as Regina and Saskatoon (Graves, 2011). The city of Prince Albert and the Saskatchewan Rivers School Division have a well-established School Plus model. Components of the programming will be discussed for the purposes of my study.

A general definition of community hub is that of a concept, community plan, or urban design for a conveniently located public place that is recognized and valued in the local community as a gathering place for people, and an access point for a wide range of community activities, programs, services, and events (Rossiter, 2007). Each hub is unique to the surrounding community in the province, but there are shared aims with respect to objectives and purposes. Schonert-Reichl (2007) suggested community connections ground children and give a sense of belonging that can help to counteract challenges in their lives. Service coordination and delivery within a shared common facility is encouraged, thereby reducing travel and providing easy access for individuals in an effort to serve community needs efficiently. Within the School Plus Program, the

physical quality and appearance of public places is enhanced in order to reinforce a location's identity and make it a more attractive environment in which people can gather and interact with each other (Rossiter, 2007). A school might be thought of as a two-way hub when children's learning activities within the school contribute to community development and community activities contribute to and enrich children's learning within the school (Clanfield & Martell, 2010). Community building takes place through the use of common meeting places and resource centres to encourage projects that will further enhance community development and social capacity.

In the School Plus model, most collaborative interagency partnerships fit into four typologies (Types A, B, C, D). In Prince Albert, Type A partnerships are organized around a particular provincial priority and funding is provided to a local agency by a government department (Saskatchewan Rivers School Division, 2007). The government and local agency employ a project coordinator. A steering committee comprised of representatives from local agencies and government departments who are interested in the priority focus of the partnership direct the work of the project staff. Formal contracts detail the deliverables expected by the funding department. Examples of Type A partnerships include the Prince Albert Regional Inter-Sectoral Committee, Kids First, and the Prince Albert Crime Reduction and Youth Initiative (Saskatchewan Rivers School Division, 2007).

Type B partnerships involve at least one local agency that provides services in another agency's facility, funded through the agency's normal operating budget. There are no formal contractual arrangements and the employees of the agency providing the

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service remain under the other agency's direction (Saskatchewan Rivers School Division, 2007). Examples of Type B partnerships include the Prince Albert Police Resource Officer Program at Carlton Comprehensive High School. The Prince Albert Police Service assigns a police officer to the school for each academic school year. The Saskatchewan Rivers School Division and the Police Service pay a portion of the constable's salary while providing an office within the school. In another Type B partnership, the Child and Youth Assessment and Stabilization Program was established in partnership with the Prince Albert Parkland Regional Health Authority at the Mental Health wing of the Victoria Hospital for children and youth who need inpatient care. The Health Authority provides for all the medical needs of children and adolescents, a social worker is assigned through Community Resources, and the Saskatchewan Rivers School Division provides educational services to school-age patients. The Prince Albert Park Mental Health and Addiction Services assigns mental health professionals to provide service to students by having office hours in various high schools within the school division. Clanfield and Martell (2010) stated key vehicles to realize a hub are the various community programs and services that are currently located within community schools coupled with an underlying desire and philosophy not only to keep neighbourhood schools open, but to actually work at creating and sustaining them as focal points in a community.

Type C partnerships incorporate community based organizations that obtain funding from multiple government and corporate sources to provide program staff, a steering committee, a facility, and multiple partnerships to support children and their

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families. Typically, formal contractual arrangements between the funding agencies and the community based organization are put in place. An example of a Type C partnership is community based outreach programs for at-risk youth. Services provided include innovative educational, recreational, and life skills opportunities to engage children and adolescents (Saskatchewan Rivers School Division, 2007). An example of a Type C partnership in the Prince Albert area is the Prince Albert Outreach Program that offers children and adolescents one-stop services. Through several programs, the Prince Albert Outreach Program was established to provide services and educational, recreational, and life skills opportunities to engage children and adolescents in healing journeys designed to help them leave the street and gang life and choose a healthy lifestyle (Saskatchewan Rivers School Division, 2007). The school division provides funding for this program and a facility at Won Ska Cultural School.

Type D partnerships consist of applications to the Saskatchewan government for funding to provide a needed service within the community. An example of a Type D partnership project is the Shellbrook After School and Anti-Bullying Program (Saskatchewan Rivers School Division, 2007). Funded by a prevention and support grant from the Government of Saskatchewan, this program provides positive lifestyles, educational opportunities, and after-school programs for youth in and around the town of Shellbrook. The program was managed by the Shellbrook Interagency Committee and the Saskatchewan Rivers School Division was the accountable partner.

In 2005, the province of New Brunswick implemented a community schools plan for public education in an effort to turn all schools into community centres of learning.

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Based on an analysis of best practices from the recommendations in the “Mackay Report” (2006), “The Ashley Smith Report” (2008), and “The McKee Report” (2009), New Brunswick’s Integrated Service Delivery model was designed to rely on existing government service delivery (Government of New Brunswick, 2010). By 2012, the Department of Education aimed to have 75 community schools across the province. This approach was a significant shift in how the New Brunswick government delivered services that enabled partners (Education and Early Childhood Development, Health, Social Development and Public Safety, School Districts, Health Authorities) to better work together to meet the needs of children and youth.

The model highlights the fundamental role of mental health literacy, gatekeeper training, and education and health system integration in improving child and adolescent mental health, and enhancing learning environments and academic outcomes (Wei, Kutcher, & Szumilas, 2011). At the foundation of the model is the understanding that each New Brunswick community school is unique. Parents and community members are encouraged to work with teachers to support the school before, during, and after-school hours. Local businesses, community groups, nonprofit agencies, and individuals join with schools by providing volunteers, in-kind assistance, or financial support (Arimura et al., 2011). Components of the model include a new service delivery paradigm, a three-tier continuum of support, a holistic service mandate, a centralized regional intake system, and youth development teams. The integrated service delivery model includes a regional advisory committee, step-up and step-down case management, and service transition linkages with Early Childhood Intervention and Adult Services, as well as a



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provincial clinical team that provides an accountability and quality-assurance framework to ensure the application of evidence-informed practices (Government of New Brunswick, 2010). In 2009, a school-based health centre was opened at the Port Elgin Regional Community School. The provincial government fully implemented the model in 2011 in 34 schools in Charlotte County and the Acadian Peninsula. By the fall of 2016, application of the model was expanded from Saint John to Sussex and into the Miramichi and Chaleur-Restigouche regions. The New Brunswick government has a goal of expanding the program to 146 schools (approximately 47% of all public schools) by 2018.

Healthy Schools was introduced in Manitoba in 2000 as “Nurses-in-Schools” to provide public health capacity in schools and promote activities to support wellness in school communities. In December 2002 a Provincial Consultation Forum was held to develop a Healthy Schools framework. Healthy Schools is a partnership between Manitoba Health and Healthy Living; Manitoba Education, Citizenship, and Youth; and Healthy Child Manitoba, and is funded by all three. The Healthy Schools framework was approved by the Healthy Child Committee of Cabinet in 2003 and included three main components: (a) promoting targeted provincial activities in response to issues affecting the health and wellness of the school community, (b) promoting community based activities, and (c) developing resources for province-wide use (Government of Manitoba, 2007). A Healthy Schools management team includes the director of healthy populations, the programs director, and the executive director of Healthy Child Manitoba. The healthy schools coordinator is housed in the Healthy Populations Branch and liaises

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with the French- and English-language physical education and health education curriculum consultants (Government of Manitoba, 2007).

In January 2005, the Manitoba Department of Education, Citizenship, and Youth launched the Healthy Schools Program based on Saskatchewan's model. The main purpose of the initiative was to support schools in low socioeconomic neighbourhoods by encouraging families, organizations, and schools to work together to improve students' success while strengthening communities (Manitoba Education, Citizen and Youth, 2006). Implementation of the Healthy Schools initiative depended on the voluntary participation of 11 regional health authorities and 37 autonomous school divisions that set their own strategic priorities (Government of Manitoba, 2007). A number of regions have a Healthy Schools committee that meets on a regular basis to facilitate planning and implementation, assess the community, identify priority issues, and follow up with implementation.

Manitoba's Healthy Schools Program promotes physical, emotional, and social health for students, families, school staff, and communities. The tenets expressed in "Towards Inclusion: Supporting Positive Behaviour in Manitoba Classrooms" (Government of Manitoba, 2011) are applied to develop a positive school climate, team planning, community involvement, and professional mental health support. The model is based on research that identified a number of key elements of effective classroom management and has three tiers of increasingly intense interventions (Seligman & Darling, 2007). The program is site specific and targets children in Grades Primary–12 within all public school boards in the province. Targeted clinical systems such as social

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skills, behavioural intervention, and individualized therapy are included in the treatments for children with EBD (Manitoba Education, Citizen and Youth, 2006). It should be noted that urban school systems in Manitoba have extensive access to clinical mental health services, which has increased the level of success among this population.

Programs are unique to each school and based on the specific needs of the entire community. Examples include youth health surveys, tobacco reduction programs, community gardens, evidence-based programming to reduce mental illness in youth, school nutrition programs, substance abuse treatment, and sexual health education.

Funding and sponsorship may be provided through government, the education community, or interested partners.

Program implementation has been hampered in rural school systems due to a lack of access to clinicians as well as cultural and geographic barriers. It is important to note that the province of Manitoba has large, rural First Nations, Métis, and Inuit populations. Statistics Canada (2008) reveals that 50% of Canada's First Nations populations live in rural and remote locations. The National Collaborating Centre for Aboriginal Health (2011) stated that in First Nations communities a lack of transportation, language barriers, long wait times, inadequate human resources, and a difficult northern climate act as barriers to accessing timely mental health services.

In Ontario, the Provincial Centre of Excellence for Child and Youth Mental Health emphasized inter-ministerial leadership in the development of school-based programming for children. Santor et al. (2009), in "Taking Mental Health to School: A Policy-Oriented Paper on School-Based Mental Health in Ontario," stressed the need for

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placement of health services at the school level in collaboration with health agencies. The goal for a full-service model is integrated policy and integrated funding among relevant ministries that will support all schools, positioning them to be full-service schools and vibrant hubs of the community (Segal, 2010).

The full-service school model was designed to improve the quality of life for children, families, and communities through the coordinated delivery of education, healthcare, prevention, and social services (Segal, 2010). As of 2011, the Toronto School Board was in the process of implementing this model in 15 schools. Since 2003, the Ministry of Education has provided nearly \$16.3 billion in capital funding for school boards to support nearly 810 new schools and over 780 additions and renovations (Government of Ontario, 2016).

Full-service schools integrating health resources for students and families while sharing costs is a framework being developed across Ontario. The initiative supports children's success and encourages community engagement (e.g., recreation, arts, culture, physical health, mental health, childcare, adult education, settlement) through the location of programs and services inside an operational school or in the community, depending on the availability of services (Segal, 2010). The Toronto District School Board has demonstrated initiatives in building programs and created a steering committee in 2009 with a membership that included board departments, community and mental health agencies, Toronto Public Health, the City of Toronto, the United Way, and trustees. An effective community school has a holistic approach to children and a focus on child-centered outcomes (Spence, 2009). For example, the province is helping the Toronto

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District School Board build a new secondary school at the southwest corner of Bloor Street and Dufferin Street that will accommodate approximately 900 students and a community hub that includes a licensed child care centre and space for community programming. During its 2015 engagement process, the Community Hubs Framework Advisory Group identified close to 60 community hubs that are already established or are in the planning stages in rural, suburban, and urban neighbourhoods across Ontario (Government of Ontario, 2016).

For children, the factors that comprise a good place for growing up include safety, freedom of movement, social integration, the opportunity to carry out diverse and meaningful activities, the presence of gathering places, a strong community identity, and a sense of solidarity (J. Torres, 2009). In an effort to provide mutual benefits to students and communities, each school takes a different approach. Governance and leadership may fall to the school principal or be shared with a full-time site coordinator who works with a site-based planning team that might include parents, community leaders, local residents, faith community members, and agency representatives. Those in charge identify the health and service issues they believe need to be addressed in their schools. Pilot programs were established and baseline data collection focused on eligible youth (Santor et al., 2009). When schools immerse children in an environment attuned to their overall needs, attendance rates improve, grades go up, class engagement increases, and behavioural concerns decrease (Leschied, Flett, & Saklofske, 2012).

In Nova Scotia, the Nunn Commission's report, "Spiralling Out of Control: Lessons Learned from a Boy in Trouble" (Nunn, 2006), and the provincial government's

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“Our Kids Are Worth It” (Government of Nova Scotia, 2007) were drafted in cooperation with the Nova Scotia Health Research Foundation to identify and support youth through long-term strategies involving multiple agencies. The result was the implementation of Positive Effective Behaviour Supports (PEBS) in more than 300 provincial schools and the creation of Schools Plus, an interagency approach in which schools become centers of service delivery. This enabled enhanced collaboration between professionals and programs to help children, youth, and families in accessible locations (Fluery, 2010).

In December 2007 the Halifax School Board, the CCRSB, and the Strait Regional School Board set up pilot Schools Plus sites. Each board had a facilitator and an advisory committee representing an array of government departments including Education, Community Services, Justice, and Health. The vision for the program was to have the schools become a convenient place for government and other services to be delivered to children and families. The approach was designed to make it easier for professionals to collaborate with one another on behalf of children. The objectives of Schools Plus were to (a) eliminate gaps in professional services to children, (b) respond to crises in a timely manner, (c) provide services to families through the use of schools, and (d) share resources to better serve the needs of children (Nova Scotia School Boards Association, 2010). In 2016, the Schools Plus Program included 207 schools ranging from elementary through high school in the Annapolis Valley Regional School Board, the Cape Breton-Victoria Regional School Board, the CCRSB, the Conseil Scolaire Acadien Provincial, the Halifax Regional School Board, the South Shore Regional School Board, the Strait Regional School Board, and the Tri-County Regional School Board. CCRSB’s Schools

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Plus hub sites are located at Amherst Regional High School in the Chignecto Family of Schools, Truro Junior High School in the Cobequid Family of Schools, New Glasgow Academy in the Celtic Family of Schools, and East Hants Rural High School in the Nova Family of Schools. Each Schools Plus hub site provides service for up to six surrounding elementary and middle schools.

Schools Plus is a collaborative hub model that is comprehensive and student-focused. The target audience is students from Grade Primary–12 and their families. Multiple partners work together to educate and provide services to the whole child and family, with the school as the center for service (MacKay, 2012). Referrals come primarily from school program planning teams. Service providers may make referrals and students or families may refer themselves. Teachers, school administrators, students, or families identify needs to the Schools Plus facilitator who will meet with them to begin case planning. Funding support comes from the Government of Nova Scotia.

The Schools Plus facilitator is invited to the school program planning team meetings as required. The response to a referral depends upon the level of need identified by stakeholders. Treatment can be as simple as sharing resources with clients and families or making referrals to other services, or as intense as facilitating communication between service providers in an effort to develop an individual comprehensive service plan with several stakeholders involved (Government of Nova Scotia, 2016). The roles of school administrations, school psychologists, teachers and specialists, and educational assistants remain consistent with the B.E.S.T. Program model within Schools Plus. One difference in the Schools Plus model is that clinicians report to the Mental Health and

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Addictions Manager within each region of the board or province for all duties pertaining to individuals, groups, and families (Government of Nova Scotia, 2016). The clinician is a member of the multidisciplinary team and participates in the planning, development, provision, and evaluation of mental health services for the assigned population in designated school settings (Government of Nova Scotia, 2016).

The duties of the clinician are carried out in accordance with the principles and practices that guide the Nova Scotia Health Authority. It should be noted that within the Nova Scotia Schools Plus model social workers undertake much of the clinical work previously completed by the B.E.S.T. educators. The lead clinician is responsible for networking and advocating for the Schools Plus initiative. This clinician monitors the progress of students served, facilitates outcomes achievement, and assesses ongoing development and potential expansion of the program with each school and board. Additional responsibilities include staffing supervision, succession planning, professional development for teachers and stakeholders, and consulting with the Schools Plus Advisory Committee (Government of Nova Scotia, 2016).

The Schools Plus community outreach workers identify problems and help build a strong foundation for children early in their schooling experience. They work to engage youth and promote shared accountability while improving students' and families' access to services within the school and community (Government of Nova Scotia, 2016). Outreach workers are individually assigned to designated school sites to facilitate services for children. Their goal is to establish an active network of community groups



that represent the diverse nature of the community and ensure effective connections between schools, families, and appropriate agencies (Government of Nova Scotia, 2016).

### **2.2 Models of Support for Children with EBD**

Based upon their research results, Prout and Brown (2007) concluded that children are the most underserved group in the Canadian healthcare system. Researchers have found that the earlier EBDs are identified, the greater the chances of children experiencing positive outcomes (Landrum, 2011). In elementary schools, this involves preventing problems from occurring and early intensive interventions at the first signs of problems. Early identification refers to both identifying patterns of behaviour when children within the B.E.S.T. Program are young, as well as identifying early signs of problem behaviours regardless of age. According to Achenbach and Rescorla (2001), Keenan and Wakschlag (2002), and DelCarmen-Wiggins and Carter (2004), the signs and symptoms of social, emotional, and behavioural disorders are apparent and measurable as early as infancy or toddlerhood and, without intervention, may have important clinical implications concerning prognosis.

For students with EBD, the consequences of failed efforts to identify problematic emotional behavioural patterns may be especially dire, as incarceration and homelessness appear to be the default placements for people with severe mental illness, at least in older adolescent and adult populations (Kauffman & Landrum, 2009a). The Canadian Medical Association (2012) suggested children with EBD have an inability to access services due to barriers that include a lack of health literacy, costs, transportation, geographic location, lack of medications, and cognitive issues that adversely affect their ability to access or

comply with care. The following subsections are used to highlight the importance of interagency cooperation, environmental analysis, and the medical and community mental health model, including empirically supported therapeutic interventions for children with EBD.

**2.2.1 School-wide positive behaviour support (SWPBS).** SWPBS programs within school settings emerged from the disagreement among scholars surrounding negative educational outcomes for children with EBD in the 1980s (e.g., Berkman & Meyer, 1988; Donnellan, LaVigna, Zambito, & Thvedt, 1985; McGee, Menolascino, Hobbs, & Menousek, 1987). SWPBS is an increasingly common approach that is based on the public health model; it is proactive and targets the school as a whole (as well as groups of students and individuals) through an integrative three-tiered approach (universal, individual/targeted, tertiary) employing a number of therapeutic orientations (Climie, 2015; Gresham, 2004; Horner, Sugai, Todd, & Lewis-Palmer, 2005; Turnbull et al., 2002). The goal of the SWPBS approach is to promote children's wellbeing by reducing emotional behavioural dysfunction and creating a positive climate. Researchers have shown that positive school-wide behaviour support is associated with (a) decreases in externalizing problem behaviour such as defiance and impulsivity (Bradshaw, Mitchell, & Leaf, 2010), (b) decreases in internalizing behaviour such as anxiety and withdrawal (Lane, Wehby, Robertson, & Rogers, 2007), (c) increases in academic achievement (McIntosh et al., 2011), and (d) increases in on-task student behaviours such as asking questions in class (Algozzine & Anderson, 2007). The literature is filled with examples of how SWPBS programs relate to reductions in problem emotions and

behaviour (Ervin, Schaughency, Matthews, Goodman, & McGlinchey, 2007; Horner, Sugai, & Vincent, 2005; Sugai & Simonsen, 2012). McIntosh et al. (2011) suggested school personnel in Canada and elsewhere can feel confident that implementing SWPBS is likely to enhance student outcomes.

SWPBS utilizes elements from multiple schools of psychotherapy, community and medical supports, and integration of families and caregivers in the treatment program. Horner (2000) further typified positive behaviour support as an approach that blends values about the rights of people with disabilities with a practical science about how learning and behaviour change occur. The psychotherapeutic process within the positive school-wide models such as the B.E.S.T. Program integrates affective, cognitive, behavioural, and physiological systems within a child (Brooks-Harris, 2008). Programs promote prosocial behaviours, establish clear expectations, and use behavioural management strategies such as positive reinforcement. Carr (2007) explained that the focus of supports must be on enhancing skills and creating systems that promote wellbeing, rather than focusing on problem behaviours that impede wellbeing.

SWPBS programs use a three-tiered model of increasingly intensive interventions coordinated to support continual effective implementation. Interventions based on behaviour principles are the most effective way of responding to EBD (Landrum & Kauffman, 2006; Kauffman & Hallahan, 2009; H. M. Walker, Ramsey, & Gresham, 2004). A basic principle of the approach includes identifying children in one of the three categories based on risk for EBD. The approach applied at the school level is proactive with respect to the prevention of negative behaviours while supporting children through

supplementary interventions for group or individual needs. A behavioural approach relies primarily on using consequences to change behaviour, although instruction, talking to children, and correcting environmental factors that set the stage for misconduct are important (Kerr & Nelson, 2006; Landrum & Kauffman, 2006). Meta-analyses showed that tailoring school-based interventions and/or therapy to individual children enhances treatment effectiveness (Bradshaw, Koth, Bevans, Ialongo, & Leaf, 2008; Bradshaw, Koth, Thornton, & Leaf, 2009; Bradshaw, Waasdorp, & Leaf, 2012; Caldarella, Shatzer, Gray, Young, & Young, 2011; de la Cruz et al., 2015; Vos, Craig, & Cooper, 2015; Waxmonsky et al., 2016).

Research on positive school-wide support for children indicates that school and board teams should invest in evidence-based practices that have proven effective across a variety of contexts (Turnbull & Turnbull, 2001; Kelm, McIntosh, & Cooley, 2014; Horner, & Sugai, 2015; Jiménez-Barbero, Ruiz-Hernández, Llor-Zaragoza, Pérez-García, & Llor-Esteban, 2016). Despite an empirical foundation, Horner et al. (1990) explained there was no specific technique or procedure that distinguishes the approach; different proponents offer varying procedural recommendations and different supporting theories of behaviour in its support. Although a variety of school-based programs exist (e.g., Positive Behaviour Intervention and Supports, Second Step, the Good Behavior Game, Raising Healthy Children, Promoting Alternative Thinking, the Fast Track Program), key elements are common to evidence-based programs. Horner, Sugai, and Vincent (2005) suggested quality intervention programs must focus on prevention, school culture and

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behaviour expectations, recognition of appropriate behaviours, data, and investment in personnel and funding for needed resources.

The structure of tiered intervention models establishes standards for defining children's success and identifying needs with an emphasis on advancing students to the point at which no further interventions are required. There is an emphasis on values that include commitments to respect the individual, meaningful outcomes, social validation, dignity, normalization, inclusion, person-centered planning, self-determination, and stakeholder participation (E. G. Carr et al., 2002; R. Freeman et al., 2006; Horner et al., 1990). Within each level there are usually multiple interventions that are coordinated with individual needs, and student data is used for decision making.

A major advance in the past decade has been the publication of results from randomized controlled trials (RCTs) documenting improvements in children's outcomes when positive, school-wide programs are implemented (Bradshaw, Koth, Bevans, Ialongo, & Leaf, 2008; Bradshaw, Mitchell, & Leaf, 2010; Bradshaw, Wassdorp, & Leaf, 2012; Childs, Kincaid, George, & Gage, 2016; Horner et al., 2009). Bradshaw et al. (2008) conducted a randomized controlled analysis of the effects of implementing school-based positive supports on the organizational environment of schools. The authors found that the implementation resulted in improved student outcomes. Horner et al. (2009) completed a wait-list controlled trial assessing the effects of school-wide positive behaviour support within 180 elementary schools (K–5) in Illinois and Hawaii between 2002 and 2006. The authors performed an effectiveness analysis on schools in which training and technical assistance in positive school-wide supports were provided to

personnel over a 3-year period. Results showed that the training and implementation of programming was functionally related to improvements in school safety and academic achievement, and a reduction in office referrals (Horner et al., 2009). Bradshaw et al. (2010) examined the link between school climate, academic achievement, and reduced discipline problems for 1,881 fifth-grade children and 90 teachers. The authors used multilevel analysis that indicated classroom-level factors were closely associated with teachers' perceptions of climate, while school-level factors were more closely associated with students' perceptions. The results highlight the significance of assessing both student and teacher perceptions in future research studies of school climate. Bradshaw et al. (2012) studied a sample with 12,334 elementary school children in 37 schools. They used multilevel analyses of teachers' ratings of children's behavioural problems, concentration problems, social-emotional functioning, prosocial behaviour, office referrals, and suspensions at five time points over the course of 4 years. The authors found school-wide positive behavioural supports improved children's behaviour problems, concentration problems, social-emotional functioning, and prosocial behaviour.

There are a limited number of studies that describe implementation efforts in middle schools. For example, Taylor-Greene et al. (1997) documented reductions in office discipline referrals in a middle school containing 530 students following SWPBS implementation. Luiselli, Putnam, and Sunderland (2002) showed reductions in disruptive behaviour, vandalism, and substance abuse following behavioural support implementation in a middle school with an enrollment of approximately 640 students,

96.5% of whom were European-American and 7% of whom qualified for free or reduced-cost lunch. Caldarella et al. (2011) reported results of a school-wide behaviour support program in a middle school with 1,063 students, 87.9% of whom were Caucasian, and 37.8% of whom qualified for reduced-price lunch. The authors compared students in a control school and found middle school students exposed to behavioural support rated their school climate as better and demonstrated greater improvements in prosocial behaviour. Perceptions in school safety did not differ between schools (Caldarella et al., 2011). None of the studies disaggregated student outcomes by student race or ethnicity.

**2.2.2 Interagency cooperation.** The American Academy of Child and Adolescent Psychiatry suggested that partnerships with community, medical, and school programming for EBD should involve stakeholder agencies while holding schools responsible for supporting classroom teachers (Pliszka et al., 2007). The role of the medical community remains consistent, but the therapeutic process for children with EBD has gained the proper respect that it deserves in many Canadian provinces and school systems (Miranda, Jarque, & Tarraga, 2006; Power, 2009).

Under ideal conditions, all students with an EBD work towards the same overall educational outcomes as all other students. What differs in environments that enhance learning opportunities for children with EBD are the levels at which these outcomes are achieved; additional supports that are needed on an individual basis; clinical supports for students, families, and staff; and an emphasis on professional development for school sites (Lewis, Mitchell, Bruntmeyer, & Sugai, 2016; McIntosh et al., 2011; Tétréault et al., 2015). This approach to teaching and learning must honor equally the needs of students

and the needs of the adults responsible for administering the learning. Key to the success of EBD programming is collaboration among partners, ongoing support in planning, appropriate management, and the establishment of caring teaching environments (Miranda et al., 2006; Pliszka et al., 2007). The role of schools in the provision of health promotion, case identification, and appropriate service delivery has long been recognized (University of California, Los Angeles, School Mental Health Project, 2009). As discussed, the interagency model has been implemented in many parts of Canada including within the framework of the Nova Scotia Schools Plus Program (Government of Nova Scotia, 2016).

The literature review revealed a census when it comes to the purpose, methodological approaches, and role of stakeholders in an interagency model for working with children with EBD (Powell & Clark, 2002). Reebye and Stalker (2007) suggested the purpose of interagency programming is to establish control, social, and material conditions appropriate for programming for children with EBD. The authors explained characteristics, symptoms, diagnoses, assessment, and treatment approaches while encouraging stakeholders to return to the roots of early intervention. The strategies suggested are intended to help develop thought processes and problem-solving strategies for managing challenges.

Aladjem and Borman (2006) and Bowman-Perrott, Greenwood, and Tapia (2007) believed there is far-ranging and growing evidence that a well-designed program incorporating interagency cooperation can positively influence an array of social, health, and academic outcomes for children with EBD. Sugai et al. (2000) and Gross et al.



(2015) suggested that integrated approaches in school settings need to draw upon interagency care models to help explore points of connection with respect to therapy for children. Interconnected systems and wraparound research by Powers (2012) indicated that if children with EBD are educated in a nurturing and supportive environment they come to perceive themselves as increasingly able to control outcomes. Within the complexity of the systems affecting children's mental health, key partnerships to address their needs efficiently and effectively exist. Kauffman and Kneedler (1981), Bloomquist (1996), C. S. Anderson (2004), and others offered comprehensive studies on behavioural programming with emphasis on how to create interagency environments that promote thinking, planning, and sharing. C. S. Anderson (2004) studied motivation from an ecological perspective, considering individual student participation, self-reported engagement, and task completion. The author concluded that classroom climate is significantly related to students' motivation.

The interagency model should include (a) a review of the current programming targeting youth, (b) an analysis of the demographic makeup of the target population, (c) the identification of community based resources and community willingness to participate, (d) information on current problems that exist within similar programs, and (e) surveys or interviews of community members, parents, and caregivers who would be interested in participating in the therapeutic process (Manion, Short, & Ferguson, 2013). The coercive behaviour patterns with which children at risk for EBD enter school, and their teachers' social behavioural expectations and responses, contribute to the risk for continued negative interactions (Stormont, Beckner, Mitchell, & Richter, 2005). The

findings extend past studies that have not looked at the knowledge and problem-solving abilities of professionals and youth. The qualitative and quantitative research conducted within the studies has resulted in tremendous growth in the ways behavioural programming can be understood and used for marginalized child populations (Christenson & Gutierrez, 2016).

Interprofessional collaboration has little meaning or value if everyone is trained to do the same thing (Beatch et al., 2008). Through interagency partnerships, school-based professionals (including counselors, psychologists, administrators, teachers, and support staff) should work to provide services with other stakeholders that are coordinated over time in order to avoid duplication or working at cross purposes (Kutcher, 2011). Pumariega, Winters, and Huffine (2003) believed the importance of serving children in their communities has evolved conceptually, clinically, and scientifically towards the interagency care model. They suggested this model asserts important values and principles, including centrality of the child in the care process, integration of the efforts of disparate agencies into a contextual approach, and the importance of serving children in their communities.

An integrated approach to training professionals working with EBD children includes teaching the fundamentals of psychology, child development, family relationships, sociology, ethics, and group dynamics. Lilienfeld (2005) discussed the ethical obligations mental health and education professionals have to become more aware of the knowledge of other disciplines and to advise the use of such knowledge to benefit children's programming. Based on their innovative research, B. Walker, Cheney, Stage,

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and Blum (2005) suggested children are not simply little adults; their treatment cannot be viewed as a scaled-down version of adult therapy. Their developmental stages, environments, reasons for entering therapy, and other relevant factors necessitate a different, if not creative, approach to therapy.

Clarfield and Stoner (2005) suggested interagency programming should include professional-child interactions, effective communication, interconnected agency planning, and goal acquisition as priorities. Interagency support for children with EBD should assist families with the development and implementation of strategies to maximize children's potential. The notion that integrated services within local communities could keep children in their home communities and neighbourhoods, which would lead to improved outcomes, has gained wide acceptance but a major shift in policy, funding, and systematic evaluation of such efforts has yet to be seen (Landrum, 2011). The care perspective within the interagency model places special significance on attachment, compassion, the moral injunction not to act unfairly towards others, or turn away from individuals in need (J. Hunter & Maunder, 2016).

Professionals should work collaboratively with consumers and adopt an integrated approach to healthcare service provision. It is ethically imperative that clinicians work to support children while helping them maintain independence and self-determination. Clinicians would do well to build professional relationships with schools where intervention can take place in a natural environment. The education of school staff will increase awareness and enhance communication among disciplines. A circle of care can then surround the child to provide support and guidance while the proper interventions

for emotional regulation and individual health promotion are developed (Wilkinson & Goodyer, 2011).

**2.2.3 Environmental analysis.** When attempting to make changes in the interplay of social, emotional, and behavioural functioning of children with EBD, stakeholders must pay attention to the context of the educational setting. According to Shepley et al. (2016), environmental analysis is the most critical element of the instructional design process when programming for children with emotional behavioural problems. Research on sustaining evidence-based practices suggested that environmental features such as these are useful for safeguarding the durability of interventions (Adelman & Taylor, 2003; Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005; Schaughency & Ervin, 2006).

Children with EBD should receive supports that are closely related to individual needs and take into account unique demographic factors (e.g., socioeconomics, age, gender, education level, income, religion, size of family). Sugai and Horner (2006) suggested school-based behavioural support and intervention should be evaluated within the environmental context of each family, student, school, and program. The three-tiered framework of the B.E.S.T. Program is somewhat new, but there is empirical literature documenting the effectiveness of treatments for children within similar programs in Canada and the United States. In the school environment, there are many intervention strategies that have been proven effective that include activity schedules (O'Reilly, Sigafos, Lancioni, Edrisinha, & Andrews, 2005), increased supervision (Lewis, Colvin, & Sugai, 2000), and social skills programs (Cook et al., 2008). Predictable school

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environments may represent the only supporting emotional and behavioural networks available in the lives of many at-risk children with EBD.

Based on critical observations of effectiveness, researchers have determined that one of the most important factors in determining the success of program implementation efforts is setting analysis: an exploration of how and why conditions affect the events or culture of a school site. This includes gathering and analysis of students' emotional and behavioural performances to enable stakeholders to set targets or goals based on evidence. Rothwell and Kazanas (2004) recognized that each school environment has its own unique development, delivery, and application environments that may affect subsequent steps in the instructional design process. Ignoring each school environment and the situation in which knowledge is applied is metaphorically akin to focusing on a hammer but not considering the nail to be used or the board to which the nail is to be affixed (Rothwell & Kazanas, 2004).

One of the key components within environmental context is early and effective intervention for behaviours that affect learning. Koller and Svoboda (2002) suggested this reflects an increasing shift from the pathology of mental illness to the strengths-based approach of mental health that utilizes environmental analysis to ensure instruction of students with EBD is prepared with due regard to the available resources, constraints, and culture of the organization. Contemporary theory finds predictable structures may represent the only supporting networks available in the lives of many individuals. The developmental competencies and capacities of children, the adequacy of the

environmental context, resources, and the interaction of their dynamic systems together shape adaptation (Doll & Cummings, 2008).

**2.2.4 The medical model.** Historically, the medical model approach for children with EBD has been adopted in Canadian schools but has proved problematic because it is devoid of critical exploration and analysis of differences based on class, gender, race, and oppressive structures such as a lack of equity in education policy reflective of all stakeholder demographics (Kazdin & Rabbitt, 2013). Equity can be defined as the opportunity for students to obtain appropriate mental health and specialized education services based on their specific needs for care (Welsh et al., 2015). This necessitates in-depth consideration of not only availability of services within health care and education services but quality of care as well (Levesque, Harris, & Russell, 2013). Although the medical model provides opportunities for an extensive description of situations, it fails to account for issues of power, dominance, and subordination (Santucci, Thomassin, Petrovic, & Weisz, 2015). Conflict is avoided and the status quo is observed within the medical model (Merikangas et al., 2009). There are limitations regarding advocacy as the medical model does not address the cause of problems and therefore reduces possibilities for transformation.

Another issue with the medical model is that as a result of deinstitutionalization and the shift towards community integration and independent living, health care services have become decentralized and fragmented. Children with EBD may experience difficulty due to systematic barriers and ambiguous admission criteria, and are often not satisfied with the type and quality of care and service provided (O'Brien, Harvey, Howse,

Reardon, & Creswell, 2016). They continue to feel dissatisfied as their needs are not being met successfully. They often experience long waiting periods to see medical professionals and specialists, and problems may be aggravated in the interim. Due to a lack of timely care regarding formal service acquisition, many families of children with behavioural disabilities turn to informal supports such as friends, family, peers, and schools (Stiffman et al., 2010). The reliance on informal support networks is another form of dependency, as families with behavioural challenged children are at times unable to adequately fend for themselves. Dependency can manifest itself through degradation and powerlessness and fosters helplessness, passivity, and adherence to the status quo (Charlton, 1998).

Additional reasons for the existence of gaps in children's mental health care include the historical reality of intervention being provided primarily by parallel health services. Indirect medical intervention approaches such as counseling, insight-based therapies, and improving self-esteem are used in isolation to solve intractable behaviour problems that require more powerful and direct systemic forms of intervention (Atkins, Hoagwood, Kutash, & Seidman, 2010; Lilienfeld, 2005; Richmond & Hagan, 2011).

The medical model continues to have a dominant impact on the nature of care, support, service, and treatment options for children with EBD. Health care clinicians, including mental and behavioural health experts, can be important players in EBD supports for children, especially when they collaborate with teachers and other educational professionals (Borowsky, Taliaferro, & McMorris, 2013). The current medical system offers various treatment approaches in working with this population, but

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both micro and macro barriers exist for children and families, including fragmentation of services, diminished resources, and children's developmental stages (Forness, 2005). As mentioned, deinstitutionalization has resulted in many mental health clients struggling to survive within Canadian communities (Armstrong & Armstrong, 2002). In order to access various programs and services, families often find they have to seek out professionals for referrals. Such indirect approaches are rarely adequate or sufficient because these children tend to be unmotivated to engage in these therapies and because ownership of the problem is often shared by the children, families, or other social agents (e.g., peers, adults).

The medical model should include (a) a review of the current programming targeting students; (b) an analysis of the demographic makeup of the target population; (c) the identification of community based resources and the community's willingness to participate; (d) information on current problems that exist within similar programs; and (e) surveys and interviews of community members, parents, and caregivers interested in participating in the therapeutic process (Atkins et al., 2015). The characteristics vary in degree of emotional and behavioural need in each individual; therefore, no one treatment or strategy can be used in all cases. Hospital-based child health care providers can address biological and psychological consequences of EBD by supporting students, family members, and school personnel in need of care or advice (Fekkes, Pijpers, Fredriks, Vogels, & Verloove-Vanhorick, 2006). This means that individualized treatment strategies are needed within the medical model to meet the needs of children.



Such programming requires a long-term commitment by all stakeholder agencies and the maximum protective factors for all involved (Lewis & Sugai, 1999).

### **2.3 Motivation and Learning in Children**

The trend over the last decade has been to validate clinical models and empirical research that combines motivational theory and self-regulatory factors for children with EBD. Kovalski and Glew (2006) stated motivation has been defined as an internal state or condition that activates, guides, and maintains or directs behaviour. A wide array of factors pertaining to motivation have been identified, including individual factors such as self-efficacy, expectancies of success, perceived control, perceived competence, learned helplessness, values, goal orientation, self-regulatory style, interest, commitment, identification, sense of relatedness, attachment, and feelings of belonging (Solomon et al., 2012). Important research on children's motivation and learning as they relate to emotional and behavioural dysfunction has been undertaken over the last few decades with contributions from researchers in a variety of countries (Seifert, 2004; E. A. Skinner & Pitzer, 2012). Moving beyond socialization, social control, and behaviour modification with an emphasis on engagement, there is a need to address the roots of misbehaviour, especially underlying motivational bases.

Educators and support professionals need to place an emphasis on engagement and remain focused on understanding the relationships and connections between EBD interventions and motivational processes. Malka and Covington (2005) noted that current research offers a much-needed entry point into future-oriented instruction. Seven theories are prominent in contemporary psychological research surrounding clinical

school-based programming for children with EBD and their motivation to change learning: self-efficacy theory, attribution theory, self-worth theory, achievement goal theory, attachment theory, meta-cognition, and reinforcement theory (Ainsworth & Bell, 1970; Bandura, 1999; Diener & Dweck, 1978; Heider, 1958; Schraw, Crippen, & Hartley, 2006; Seifert, 2004; Skinner, 1953; Weiner, 1986).

**2.3.1 Self-efficacy theory.** Self-efficacy refers to children's judgments about their abilities to perform a task at a specific level of performance. Bandura's (1999) social-cognitive theory emphasized reciprocal determinism in which both the environment and past experiences influence the learner, and the learner, in turn, has an impact on the environment. The interplay of these factors influences a child's propensity to learn in a reciprocal process (Strahen, 2008). In school, students need self-efficacy to achieve assigned tasks. Factors affecting self-efficacy include experience, modelling, social persuasions, and physiological factors (Erickson, 1963). Students are not fooled by ingenuine praise or condescending encouragement. As learners observe and model others achieving success their self-efficacy increases the power of positive persuasions that can alter student confidence (Ruth, 2009; Schweinle & Mims, 2009). Over time, positive experiences in stressful or unfamiliar learning circumstances can shape a student's belief in his or her ability to succeed. Fostering a psychologically safe climate creates an atmosphere in which learner resistance is minimized.

**2.3.2 Attribution theory.** Espoused primarily by Heider (1958) and Weiner (1986), attribution theory is a progressive model that begins with a child's explanation of why a particular event turned out as it did. "In an academic setting, typical attributions

might include effort, skills and knowledge, strategies, ability, luck, the teacher's mood or mistakes by the teacher" (Seifert, 2004, p. 138). Students' motivations are encouraged and strengthened by exposing them to familiar content and creating opportunities for them to feel good about themselves. According to attribution theory, three components are essential to determine how expectations are created: locus of control, stability, and controllability (Banks & Woolfson, 2008; Boysen & Vogel, 2008). This theory incorporates cognitive theory and self-efficacy theory in the sense that it emphasizes that children's self-perceptions staunchly influence the ways in which they will interpret the success or failure of their efforts and their future tendency to perform these same behaviours (Weiner, 1986). The key to successful learning using the cognitive model is the quality of processing that occurs while actively engaging with subject matter. The general purpose of attribution theory strategies is to encourage a classroom environment in which students perceive a vested interest in curricula content, locus, and control.

**2.3.3 Self-worth theory.** There is a growing belief that self-worth theory and student academic and social performance are relevant to one another. The self-worth of an individual is connected to his or her ability to do something well. Seifert (2004) contended that people who are good at something are people who are worthy; people who are good at important tasks are valued by others. In the context of school, students who can get top grades are deemed more worthy and valued than those who do not. What counts is the ability to do well. Students with EBD are at risk of developing low self-worth, social dysfunction, and reduced academic achievement (Olsen, Breckler, & Wiggins, 2008). White and Renk (2012) highlighted the concept that the relationships

between children with EBD and characteristics of their families, perceived supports, and their acculturation affect children's perceptions of self-worth.

**2.3.4 Achievement goal theory.** Achievement goal theory (Diener & Dweck, 1978) contends students' learning goals are related to motivation. Mastery oriented individuals seek to develop their competence and improve their abilities while performance-oriented individuals seek to demonstrate their competence and avoid revealing their incompetence. Song and Grabowski (2006) suggested research on goal orientation has not unequivocally established the differential motivational consequences of these orientations. The general sense is that mastery goals are adaptive and performance-avoidance goals are not. The implications of this for children with EBD who often engage in performance-avoidance goals include the development of low self-esteem, a lack of motivation to change dysfunctional behaviours and emotions, as well as an inability to take risks in order to create change in their lives (Gonida, Voulala, & Kiosseoglou, 2009).

**2.3.5 Attachment theory.** Attachment theory is recognized as a cornerstone of developmental psychology and can guide practitioners designing programming for children with EBD by helping them create intervention strategies. Attachment theory provides a framework of long- and short-term interpersonal relationships for understanding children's emotional reactions such as love, loneliness, and grief (Ainsworth & Bell, 1970). Attachment styles in adults are thought to stem directly from the working models (mental models) of themselves and others that were developed in infancy and childhood (T. G. O'Connor, Matias, Futh, Tantam, & Scott, 2012).

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Attachment relationships have a direct bearing on children's capacity to succeed in school. Luby (2009) suggested one of the central features of children's relationships with caregivers is the security children derive from them, and attachment theory provides a valuable approach to understanding the origins and consequences of the security of attachment in early childhood. The link between child attachments (primarily with primary caregivers) and various types of autonomous adult behaviours has been well established (Bowlby, 1988; Rholes, Simpson, & Friedman, 2006). Teachers and support professionals have an ethical obligation to create learning activities that allow children with EBD to find avenues of personal relatedness, enjoyment, and competence. More recently, attachment theory has been used to explain some aspects of both child and adult education (Geddes, 2008) and to facilitate understanding of certain teacher behaviours, thereby promoting behaviour modification in some educational contexts (Riley, 2011).

Research by Geddes (2006) and Bergin and Bergin (2009) drew attention to the significance of the pupil-teacher relationship in developing a positive emotional climate and an effective learning environment (e.g., greater emotional regulation, social competence, willingness to take on challenges, lower levels of ADHD). Both general and special education teachers identified the skill of self-control as necessary for classroom success (Lane, Givner, & Pierson, 2004). Children who can regulate their own emotions and responses are more popular, have fewer behavioural problems, are more emotionally stable, have fewer infectious illnesses, and achieve more academically in school (Bakeman & Gottman, 1997). To be able to engage in learning, a pupil needs to be able to take risks, learn new things, face new challenges, manage frustration and anxiety, have

good self-esteem, and be able to ask for help when needed (Cozolino, 2013). Analyses of data from the National Institute of Child Health and Human Development Study of Early Child Care and Youth Development confirmed that attachment was related to self-regulation, social self-control, and attentional impulsivity later in life (Drake, Belsky, & Fearon, 2014). Such findings have implications for educators and highlight the potential importance of early attachment experiences, student success, and motivation across schooling in general.

Attachment theory is especially useful when developing alternative approaches, prevention, and interventions to support children with EBD. Teachers should create activities that intentionally provide a wide range of experiences, permission to err, value variety and possible solutions to problems, and encourage self-evaluation (Verschueren, 2015). One teaching strategy that frequently arises in the literature is process-oriented teaching to empower children through scaffolding and modelling while encouraging the idea of a learning community (Williamson, 2015). Educators focus on attachment and place significance on compassion in building secure, caring relationships with each child while taking actions to promote children's happiness and meet each student's need for autonomy, belonging, and competence (Wentzel, 2016).

The general purpose of inclusive programming based on attachment theory is to improve opportunities for children with EBD to form relationships and improve learning. Teachers should work to enhance the focus on intrinsic motivation as it relates to learner readiness (Adelman & Taylor, 2015; M. S. Watson, 2016). Students should engage in collaborative efforts with teachers, stakeholders, and peers as mentors to determine needs

and goals for care, support, and learning. Research on the security of attachment and a broader network of relational influences within the family confirmed the importance of relational experience to the development of psychological vulnerability or wellbeing for children (Luby, 2009). The problem is finding the best process to follow in order to identify a program in which students will thrive. Thriving results when individual hardiness and adaptability variables (e.g., psychological characteristics, competencies), combined with protective factors (e.g., the availability of social supports or creative opportunities in the school environment), are embedded in socializing institutions, and are sufficient to overcome the potential harm derived from risk factors in the child's environment (Bonnano, 2004).

New treatment options and education strategies incorporate a therapeutic approach that is grounded and guided by the principles of attachment theory to engage children with EBD in a process of pro-social choices in the school setting. Seifert (2004) stated attachment theory is more tightly entangled with treatment or education strategies than the literature suggests and it is possible to weave them together. In so doing, a coherent view of student motivation emerges (Breeman et al., 2015; Covington, 2000; Derrer-Rendall, Wesson, Anderson, & Bould, 2009).

The purpose of Covington's (2000) review was to document the directions and recent progress in understanding the motivational dynamics of school achievement. Based on the accumulating research surrounding attachment theory, the author concluded that the quality of children's learning, as well as the will to continue learning, depends closely on an interaction between the kinds of social and academic goals students bring to

the classroom, the motivating properties of those goals, and prevailing classroom reward structures. The study has implications for education reform from a motivational and goal theory perspective (Covington, 2000).

Breeman et al. (2015) studied the relationships between teacher characteristics (e.g., competence in social classroom relationships, teacher–child and peer interactions) and children's social, emotional, and behavioural classroom adjustment at both the individual and classroom levels by applying two models among 414 children placed in special education classrooms. The authors noted in the first model children's classroom adjustment was regressed on social relationships and teacher characteristics, while in the second model, reversed links were examined by regressing teacher characteristics on social relationships and children's adjustment (Breeman et al., 2015). Model 1 demonstrated individual students had better social and emotional adjustment as predicted by both positive teacher–child and peer relationships. At the classroom level, positive social relationships were predicted by higher levels of teacher competence, which in turn were associated with lower levels of classroom social problems (Breeman et al., 2015). Results of Model 2 demonstrated at the individual and classroom levels only the emotional and behavioural problems of children predicted social classroom relationships. The researchers found that higher levels of teacher wellbeing were associated with classroom adaptive and maladaptive student outcomes. The authors found at the classroom level, teacher competence was best predicted by positive teacher–child relationships and teacher wellbeing was best predicted by classroom levels of prosocial behavior (Breeman et al., 2015). The authors highlighted the importance of positive



teacher–child and peer interactions, emphasizing the role attachments play for children placed in special education, and suggested ways of improving classroom processes by targeting relationships and cultivating teacher competence to increase motivation.

Research conducted on the development of learning theories and connections to classroom instruction for children with EBD demonstrated the complex relationships and variety of activities needed to maximize children’s potential. Meta-cognition and reinforcement theory offer stakeholders conceptual frameworks for interpreting classroom and school-based strategies to support EBD programming as a central component to children’s achievement. In the context of meta-cognition, motivation is defined as beliefs and attitudes that affect the use and development of cognitive and meta-cognitive skills (Schraw et al., 2006). Education is a process of changing children’s patterns using behaviour and learning in a broad sense to include thinking, feeling, and overt action. When viewed in this way, it is clear that educational objectives represent the kinds of changes that an educational institution seeks to bring about in children with EBD (Martínez-Fernández & Rabanaque, 2009).

**2.3.6 Meta-cognition.** Meta-cognition has been dominated in the past with emphasis on child and adolescent development, critical role changes to memory monitoring, self-regulation, meta-reasoning, consciousness, and self-awareness used to regulate one’s own cognition and evaluate proper ethical and moral rules (Martinez, 2006). Meta-cognition applied to children with EBD involves the thoughts, beliefs, and feelings of children as they participate in the formulation of knowledge. Karabenick and Zusho (2015) provided a conceptual and methodological commentary on significant

crosscutting themes and future directions in the study of self-regulated learning. The authors defined self-regulated learning as dynamic, contextual, warm, and social. Given the complex nature of self-regulated learning as both domain-general and domain-specific, emphasis is placed on the continuing need for multiple methods to fully comprehend its role in learning (Karabenick & Zusho, 2015).

Tuysuzoglu and Greene (2015) strongly supported the need to promote problem-solving skills acquisition and self-regulated learning within meta-cognitive contexts. The authors commented that for children to achieve a conceptual understanding of complex topics the use of self-regulated learning skills is critical. The purpose of their study was to investigate the contingent relationship between meta-cognitive monitoring; judgment of learning, and meta-cognitive control; strategy change (Tuysuzoglu & Greene, 2015). The authors highlighted the work of Winne and Hadwin (2008), who claimed that metacognition is a key aspect of self-regulated learning, particularly meta-cognitive monitoring and control. The results showed that the frequency of adaptive meta-cognitive behaviour positively related to learning and static meta-cognitive behaviour negatively related to learning. Tuysuzoglu and Greene (2015) noted the implications of their work with respect to future research into self-regulated learning, as well as the benefits of helping children recognize the necessary contingency that follows from meta-cognitive monitoring when learning.

Rath et al. (2004) pointed to meta-cognition and self-regulation as constructs that seem to fit internality with increasing maturity associated with children's abilities to monitor, plan, organize, and evaluate their own learning in combination with perceived

corroborative experiences. Research on meta-cognition, strategic action, and motivation to learn has progressed in both health management and education (Helle, Tuijula, & Laakkonen, 2009; Schunk, 2008; P. Wagner, Schober, & Spiel, 2008). Schunk (2008) recommended research include (a) providing clear definitions of processes, (b) identifying relevant theories, (c) ensuring that assessments clearly reflect processes, (d) linking processes with academic outcomes, (e) conducting more educational developmental research, and (f) tying processes firmly to instructional methods.

The key to successful learning for children with EBD using the meta-cognitive model is the quality of processing that occurs while actively engaging with subject matter (Chatzipanteli, Digelidis, Karatzoglidis, & Dean, 2016). The reflective quality of meta-cognition demands a high tolerance of vulnerability for educators because it means exposing one's own processes. Eisenberg (2010) suggested that effortful control among preschool and elementary age children is associated with better social relationships at school, higher academic engagement, and improved achievement. There is a growing awareness within high-quality studies that child self-regulation is a central construct in understanding student performance. Being meta-cognitively aware creates learning opportunities for students to contribute to peer-oriented settings (Boyer, Maher, & Kirkman, 2006). Meta-cognition occurs during reflective action as learners come to understand their potential and abilities. If self-regulation is not fully utilized, learning will not take place effectively. This problem occurs because some teachers do not encourage students to self-regulate their learning when teaching (Ponitz, McClelland, Matthews, & Morrison, 2009).

Teachers who cognitively engage students with EBD want them to think deeply about the context to be learned, to think about what they know and do not know, and to use different strategies for learning that increase their understanding of the material to be learned (Linnenbrink & Pintrich, 2003). Children should have time to reflect, familiarize, and make sense of the information alone and as a group. Despite an increased interest in studies relating variables such as learning motivations, meta-cognitive processes, and beliefs about the self to self-regulate, there is still a gap in identifying variables that serve as antecedents to starting the self-regulation process (Rock, 2005). Shepard (2005) suggested children who practice self-evaluation are more motivated and interested in substantive feedback than students who do not self-evaluate.

Recognizing that no single theory for motivation and learning can address the complex needs of children with EBD, it is critical for stakeholders to acknowledge the importance of intervention strategies that increase motivation by supporting children's autonomy and content goals, and use reinforcement to foster positive relationships. Regardless of the theory applied to affect EBD children's motivation, it is important for stakeholders to remain cognizant of child-centered primary care that focuses on holistic management, ethical programming, positive school culture, multimodal approaches, and individual strategies to help remove barriers while increasing positive outcomes (Vansteenkiste, Sierens, Soenens, Luyckx, & Lens, 2009).

**2.3.7 Positive reinforcement.** Educators are encouraged to continue studies that connect motivation to learning, task completion, and competence. More efforts need to be made to locate, describe, and investigate causal relations between teachers and

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students in classroom settings. Educational psychologists need to continue the study of teachers' reinforcement techniques, communication behaviours, and strategies within practical salience (Stefanou, Perencevich, DiCintio, & Turner, 2004). Positive behaviour reinforcement theory proposes that educators can change a child's behaviour by using reinforcement, punishment, and extinction. B. F. Skinner (1953) argued that the internal needs and drives of individuals can be ignored because people learn to exhibit certain behaviours based on what happens to them as a result of their behaviour. Applied to the school environment for children with EBD, theorists believed these external environments could be designed to motivate a child effectively and positively.

Educators need to understand their ability to positively and negatively impact students' self-efficacy. Stakeholders should identify teacher immediacy influences and how classroom interpersonal contexts influence academic and social motivation. Researchers should work to broaden theoretical parameters of achievement motivation to include multi-dimensional approaches (Vansteenkiste et al., 2009), highlighting the diverse array of intelligences within classroom settings. Schunk and Mullen (2012) believed the goal of theories (self-efficiency, attribution, achievement, attachment, meta-cognition, reinforcement) was to predict more holistic child-centered intentional behaviour and effect, especially action initiations and goal strivings, including active attempts, effort, attention, concentration, and persistence in the face of obstacles versus passivity, giving up, and withdrawal of effort.

The creation of non-threatening and intrinsically motivating learning by embedding assessment and evaluation in ongoing activities encourages children to be

accountable while minimizing punitive measures. Within the classroom, increased verbal immediacy achieved through the use of reinforcement for student's efforts, humor, self-disclosure, and willingness to engage in conversation can have powerful and pervasive effects on children's intentions, behaviours, and academic engagement. Teachers' instructional practices, as well as the quality of their interpersonal interactions with students, appear to make critical contributions to students' motivation and performance (Stefanou et al., 2004). Informational feedback helps students understand why they have performed well, and can be used diagnostically to improve future performance.

### **2.4 Effective Therapeutic Approaches for Children with EBD**

It is important for professionals to continue to (a) assess overall treatment programs, (b) analyze the components of treatment, (c) build more effective treatment strategies by adding components, (d) compare different treatments to demonstrate areas of strength and challenge, and (e) analyze the cost-effectiveness of each therapy. The effective treatment of EBD in children with prescription medications is a popular way of dealing with both the central issues of emotional behavioural problems and the secondary issues that will inevitably arise for someone living with the disorder. The role of medications can be overplayed or misunderstood, but medication is clearly important not only in managing EBD but also in making children more accessible to instruction (de la Cruz et al., 2015; Hoff et al., 2016; Kavale & Forness, 2000). While acknowledging this component of care for many children, this section of my dissertation will be focused on psychotherapeutic strategies and school-based interventions that have empirical support.

Sattler and Hoge (2006), in *Assessment of Children: Behavioral, Social and Clinical Foundations*, supported Clarfield and Stoner's (2005) assertions that a variety of psychotherapeutic strategies are effective with EBD and intended for real-world settings. Professionals need to remain focused on understanding the relationships and connections between therapeutic interventions and motivational processes. Support for children at the school level is an area to explore in preventative measures that stakeholders can improve upon to reduce negative emotional, behavioural, and academic problems (Lucas, Collins, & Langdon, 2009). Gaps in awareness and knowledge about identification and treatment of EBD in children are evident across society, in schools, and in government-provided services. Support and assistance should be available from a number of sources and may be crucial to a child's wellbeing. The challenge and frustration for clinicians, families, and other stakeholders trying to address EBD in children lies in the fact that despite years of research, theories, therapeutic strategies, and significant medical interventions there has been little decrease in the number of children entering elementary schools with maladaptive behaviour patterns (Herman et al., 2011; Kutcher, 2011).

Research shows that disciplinary exclusions are more frequently applied to children with EBD (Bowman-Perrott et al., 2011). Given the disproportionately high level of disciplinary action, and the frequency with which students with EBD are placed in highly restrictive settings, the need for empirically supported intervention is clear (Gargiulo, 2012). Carroll and Nuro (2002) identified four elements that are required to develop evidence-based practices for children with EBD and evaluate the effectiveness of those practices: (a) a standardized treatment model (e.g., treatment manual); (b) a well-

defined target population; (c) documented and standardized procedures for selecting, training, and supervising interventionists; and (d) tools to monitor treatment requisites needed for this work (e.g., treatment manuals, target population, training protocols; Sanetti, Dobey, & Gritter, 2012; Schulte, Easton, & Parker, 2009; Weisz & Kazdin, 2010). Most emotional behavioural plans lack validated treatment integrity measures designed to support program evaluation and teacher training (Kazdin, 2012; Sanetti et al., 2012; Schulte et al., 2009; Weisz & Kazdin, 2010).

Many school-based EBD support program designers appear to select therapeutic interventions based on recommendations from teachers, board-level consultants, administrators, and clinicians. Although these sources provide useful collateral information, it is critical that designers ensure that empirical research supports the efficacy of the intervention. When an intervention is implemented without careful consideration of the systemic features necessary to guide implementation, the intervention is likely to disappear quickly, be implemented with poor fidelity, or become part of a hodgepodge of interventions, none of which have documented positive effects (Kratowill, Albers, & Shernoff, 2004). EBD support must be rooted in evidence-based practices supported by the use of data to guide program planning and school board support to effectively implement strategies. The rationale for this is that simply choosing to implement an intervention that has empirical support does not guarantee schools have the capacity and resources to implement the intervention effectively and to sustain the program over time (Fixsen, Blasé, Horner, & Sugai, 2009).



Developing motivation is an important step toward a child's acquisition, transfer, and use of knowledge and skills to change dysfunctional emotional and behavioural patterns. Motivation has received increased attention in therapeutic approaches, presumably because children's motivation is fundamental for treatment effectiveness (R. M. Ryan, Lynch, Vansteenkiste, & Deci, 2011). Clinicians and educators must ensure that children are involved with treatment and interventions as a goal to enhancing motivation. Outcome-oriented treatments consider improving a child's motivation a prerequisite for process-oriented interventions and emphasize transparency (Majnemer, 2011).

Practitioners should be aware of the relationship between age of onset and the importance of properly developed therapeutic strategies when implementing CBT, DBT, and family therapy (Chorpita, Bernstein, & Daleiden, 2011). Clinicians would do well to use a variety of consultation and assessment strategies (e.g., reflexive and circular questions, normalizing, reframing, confronting, pacing) within approaches that demonstrate methods of checking what clients know, their progress, and their learning (Southam-Gerow et al., 2010). Without appropriate treatment to change trajectories of EBD, children are not likely to have positive outcomes.

**2.4.1 Cognitive behavioural therapy.** A cognitive behavioral therapeutic (CBT) approach is applicable and useful in working with children who have experienced various struggles, tensions, and challenges within a school setting. Broadly defined, CBT is a combination of cognitive and behavioural therapeutic approaches used to modify maladaptive thoughts and behaviours (Chorpita, Bernstein, & Daleiden, 2011). CBT is

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an umbrella term for a variety of different therapies that share common elements. Two of the earliest forms of CBT were rational emotive behaviour therapy (REBT), developed by Ellis (1957), and cognitive therapy developed by A. T. Beck (1961).

CBT applied to children with EBD focuses on how children respond to their cognitive interpretations of experiences and how thoughts and behaviours are related. Cognition change procedures are combined with behavioural contingency management and learning experiences in an effort to help change distorted or deficient information processing while developing a child's internal locus of control. CBT is a time-limited, structured, active, and empirical therapy in which the clinician works with the child using a wide variety of strategies to help change dysfunctional cognitive processes. The goal is to improve both emotional and behavioural functioning in relation to adaptability and maximize a clients' potential and quality of life (McCullough, 2003). This approach to therapy provides collaborative opportunities for thorough and comprehensive exploration and analysis of individuals and their fit within their environmental setting and society. Successful self-modification always contains essential elements: self-knowledge, planning, information gathering, and modification of plans in light of new information (Watson & Tharp, 2002). CBT implemented to treat children with EBD focuses on cognitive interpretations of dysfunctional emotions and behavioural experiences rather than the environment of the experience itself or how children's thoughts and behaviours are related. Research within the sociocognitive framework illustrated adaptive and maladaptive motivational processes that link performance and learning goals for children in emotional, behavioural, and cognitive tasks (Dweck & Elliot, 1983; Khodarahimi &

Nnamdi, 2009). Self-determination can be encouraged by allowing children with EBD to choose activities that are both enjoyable and challenging while finding intrinsic treatment goals that are relevant to their experiences.

Schoenfeld and Janney (2008) and Chorpita, Bernstein, and Daleiden (2011) explained CBT as an effective psychotherapy for the treatment of EBD in children. Schoenfeld and Janney (2008) completed a review of literature summarizing the prevalence and academic effects of anxiety disorders for children with EBD. School interventions designed to ameliorate symptoms were discussed. Chorpita, Bernstein, and Daleiden (2011) provided an updated review of 750 treatment protocols from 435 studies and rated them on a five-level strength of evidence system. The authors concluded a large number of treatments are applicable to anxiety, attention disorders, autism, depression, and disruptive behaviour. The literature validated CBT and a growing list of options are appropriate treatment selections for children.

A significant body of research indicates CBT is highly effective in treating child and adolescent depression through the use of various strategies (e.g., the emotional thermometer, the down arrow technique, thought forecasting, and increasing positive statements) (Gimpel Peacock & Collett, 2010; Kauffman, 2015; P. C. McCabe & Shaw, 2010; Merrell, 2008). Weare and Nind (2011) demonstrated the value of CBT when used appropriately within contexts that include children with EBD. The authors conducted a systematic search of the literature that uncovered 53 reviews and meta-analyses of mental health in schools. The study revealed various strategies that utilized a CBT approach

(e.g., teaching social skills, positive reinforcement, school-wide component) which were effective for children when completely and accurately implemented.

The cognitive behavioural therapeutic process deals with how well children are learning and how well the clinician is presenting available resources (L. D. Miller et al., 2011). The implementation of therapeutic intervention should provide ongoing training and development for children in the area of transitioning from therapeutic initiatives to real-world environments. The importance of community, hospital, and school treatment services is recognized as well as the strengths and weaknesses of each. Gresham (2015a) suggested enacting CBT techniques and procedures requires both rigorous theoretical and practical training and attention to detail. Kauffman (2015) demonstrated the importance of interval event and narrative recording strategies as well as coding systems. Clinicians need to apply a comprehensive, manualized CBT protocol when treating self-injury in adolescents.

A number of CBT approaches have received extensive empirical review and have been deemed effective in the treatment of EBD. Some of these include: (a) individual and group therapy (E. McCullough, Gordon-Jones, Last, Vaughan, & Burnell, 2016), (b) problem-solving skills training (Merrill, Smith, Cumming, & Daunic, 2016), (c) group assertiveness and social skills training (Crooke, Winner, & Olswang, 2016), (d) multi-systemic therapy (Cooper & Cefai, 2013), (e) group parent management training (Gresham, 2015a), and (d) family focused individual CBT (Johnson, 2016).

The use of CBT with children is a process of changing patterns; using behaviour and learning in the broad sense to include thinking as well as overt action. Child learning

within CBT is a proactive activity, requiring self-initiated motivation and behavioural and metacognitive processes (Clark & Schroth, 2010; Crooke et al., 2016). Children are encouraged to be more responsible for their own learning and changes in behaviours. Henin, Micco, Schoeller, Boudreaux, and Hirshfeld-Becker (2016) provided a detailed description of CBT approaches and techniques that are most commonly used with children, including psychoeducation, relaxation training, cognitive restructuring, problem solving, behavioural exposure, and organizational skills training. Children's learning must focus on more than content.

Clinicians who cognitively engage children in therapy want them to think deeply about the context to be learned, to think about what they know and do not know, and to use different strategies for learning that increase their understanding of their fears and apprehensions. It is the responsibility of the professional to create therapeutic environments that permit children with EBD to assume the responsibility that is rightfully and naturally theirs (Long & Fogell, 2013). Children should have time to reflect on, get familiar with, and make sense of the information alone or as a group within CBT paradigms. A reflective conversation demands a high tolerance of vulnerability because it means exposing one's own processes. At the same time, it puts those consulting into a partnership very different from the usual child-professional relationship based on the assumption that the professional has the knowledge the student needs.

The key to successful learning using the cognitive model is ensuring high quality processing occurs while actively engaging with subject matter. Research by Sugai and Horner (2009a) demonstrated the strength of cognitivism in highlighting the significance

of meta-cognition and its relationship to self-regulation. Self-regulation is learning that occurs largely under the influence of student's self-generated thoughts, feelings, strategies, and behaviours, all of which are oriented towards attainment of goals (Briesch & Briesch, 2016).

Recent studies suggested CBT and interpersonal skills interventions and motivation could be combined to maximize change potential in children (Horner & Sugai, 2015). The interpersonal components tend to target how worrying affects interpersonal relationships, interpersonal avoidance, interpersonal styles, and co-rumination. These results encourage further study of the effectiveness of CBT in the treatment of children with EBD.

A number of meta-analyses support the efficacy of CBT in the treatment of EBD in childhood using a variety of approaches within medical, community, and school settings (Forness, Freeman, & Paparella, 2006; Silk et al., 2016; Sukhodolsky, Kassinove, & Gorman, 2004; Ung, Selles, Small, & Storch, 2015). Sukhodolsky et al. (2004) completed a meta-analysis of the treatment outcome studies of CBT for anger-related problems in children and adolescents in 21 published and 19 unpublished reports. Skills training and multi-dimensional treatment effectively decreased aggression and improved social skills.

Forness et al. (2006) presented findings from six RCTs that compared evidence-based CBT applied to children with EBD. The authors selected three studies that focused on children with ADHD and three others which concentrated on depression and anxiety. The findings suggested that combined treatments are likely more efficacious, but

psychopharmacological treatments might have been somewhat more effective than CBT alone in five of the six trials. Ung et al. (2015) published a systematic review and meta-analysis of 14 studies involving 511 youth in which CBT treatment for anxiety among youth with ASD was examined. The findings suggested CBT had a robust efficacy in reducing anxiety symptoms in youth with high-functioning ASD (Ung et al., 2015).

Silk et al. (2016) compared individual CBT and a supportive child-centered therapy (CCT) for child anxiety disorders measuring rates of treatment response and recovery at posttreatment and 1-year follow up, as well as on real-world measures of emotional functioning. Children with anxiety disorders ( $N = 133$ ; ages 9–14; generalized, separation, and/or social anxiety) were randomized using a 2:1 ratio of CBT ( $n = 90$ ) to CCT ( $n = 43$ ), which served as an active comparison (Silk et al., 2016). Independent evaluators completed a 1-year follow up to treatment and participants completed ecological momentary assessment of daily emotions throughout treatment. The authors reported children treated with CBT were significantly more likely to fully recover, no longer meeting diagnostic criteria for any of the targeted anxiety disorders and no longer showing residual symptoms (66.7% for CBT vs. 46.5% for CCT). These results indicate the benefits of CBT on the breadth, generalizability, and durability of treatment-related gains (Silk et al., 2016).

In conclusion, existing meta-analyses of CBT have focused on a small number of specific disorders, making generalizations difficult. Despite this weakness, there is a wealth of research literature on RCTs that provide strong support for CBT as an effective intervention for EBD in children (Blumenthal, Smith, & Hoffman, 2012; S. A. Green &

Wood, 2016; Silk et al., 2016; Sukhodolsky, Smith, McCauley, Ibrahim, & Piasecka, 2015; Wood et al., 2015). At the same time, there is room for future improvement in CBT strategies designed to enhance learning while treating children.

**2.4.2 Dialectical behavioural therapy.** Dialectical behavioural therapy (DBT) is an empirically supported intervention for adults with borderline personality disorder exhibiting suicidality and/or non-suicidal self-injurious behaviours (Linehan et al., 2006; Wisner, Jones, & Gwin, 2010). At the foundation of the approach is a combination of Zen Buddhism, cognitive-behavioural strategies, problem solving, and skills training. Applied to children with EBD the therapy focuses on individual emotional dysfunction, vulnerability, and strengthening stability.

In the last decade, a number of studies have evaluated DBT as a treatment for children and adolescents with psychological and behavioural disorders. DBT addresses deficits in emotion regulation, distress tolerance, and interpersonal relationships through individual therapy, skills training, and supervision and/or case consultation groups (Linehan, 1993). As a psychotherapy, DBT has five critical functions for children with EBD: (a) enhance and maintain the child's motivation to change, (b) boost the child's capabilities, (c) ensure the child's new capabilities are generalized to all relevant environments, (d) enhance the clinician's motivation to treat children while expanding the clinician's capabilities, and (e) structure the environment so that effective treatment can take place (A. L. Miller, Rathus, & Linehan, 2006).



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At present, there are a number of published research studies about the clinical effects of DBT with children (Groves, Backer, van den Bosch, & Miller, 2012; Semple, Reid, & Miller, 2005; Shelton, Kesten, Zhang, & Trestman, 2011; Zoogman, Goldberg, Hoyt, & Miller, 2015). Semple et al. (2005) conducted an open 6-week clinical trial that examined the feasibility and acceptability of a mindfulness training program with five anxious children aged 7–8 years old. The results of the study suggested that mindfulness can be taught to children and holds promise as an intervention for anxiety symptoms (Semple et al., 2005). Shelton et al. (2011) used secondary analysis to study 38 male adolescents who participated in DBT in the treatment of difficult to manage, impulsive, and/or aggressive behaviours. Significant improvement was found in aggression, coping methods, and reported disciplinary infractions, supporting the value of DBT for youth. Groves et al. (2012) reviewed literature on the use of DBT as a therapeutic treatment for borderline personality disorder, suicidal ideation, depression, bipolar disorder, eating disorders, aggression, and impulsivity. Adolescents who participated in the treatment were hospitalized less frequently. The authors concluded that DBT may be effective in treating youth with additional disorders and dysfunctional behaviours not yet examined (Groves et al., 2012; Nathan & Gorman, 2015).

The DBT model assumes that children with EBD lack important interpersonal skills, self-regulation strategies, distress tolerance, and that individual environmental factors may frequently block or inhibit behavioural skills that reinforce maladaptive actions. When used with children, the therapy shares qualities with acceptance and exposure-based approaches in which clinicians help children expose themselves to and

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learn to tolerate feared or avoided stimuli or events, thus precluding the need for maladaptive escape or avoidance behaviours such as EBD (Nissimov-Nahum, 2008). Miller, Wyman, Huppert, Glassman, and Rathus (2000) indicated that because of its CBT background, DBT draws from a broad spectrum of cognitive and behavioural treatment techniques including mindfulness, distress tolerance (emotion regulation skills, and interpersonal skills) as well as motivation to change. Sacco, Twemlow, and Fonagy (2008) studied the use of mind-body techniques as a method of reducing destructive aggression. Mendelson et al. (2010) found that children who participated in mindfulness-based interventions reported less ruminating and persistent or worrying thoughts. Semple, Lee, Rosa, and Miller (2010) found reductions in anxiety when DBT was used with participants who presented with clinical levels of anxiety. Meta-analytic review has demonstrated DBT is an effective treatment for a variety of psychological problems and is especially effective for reducing anxiety, depression, and attention-deficit/hyperactivity disorder in children (Feigenbaum, 2008; Kallapiran, Koo, Kirubakaran, & Hancock, 2015; Khoury et al., 2013; Ost, 2008). The effective, experiential, and skills-based practices of mindfulness-based psychotherapy make DBT adaptable for children with EBD with intellectual challenges who have varying emotional behavioural challenges. Perry-Parrish, Copeland-Linder, Webb, and Sibinga (2016) found DBT a useful intervention for children at increased risk for exposure to chronic stress and helpful in parenting techniques to improve behaviour through parent–child interactions.

DBT has been empirically evaluated in RCTs (Carboni, 2012; Linehan, Armstrong, Suarez, Allmon, & Heard, 1991). For example, Linehan et al. (1991)

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conducted a RCT for 1 year, with assessment every 4 months, to evaluate the effectiveness of DBT for the treatment of chronically parasuicidal women who met criteria for borderline personality disorder. During the study, treatment was maintained as usual for the control group. At most assessment points, and during the entire year, the subjects who received DBT had fewer incidences of parasuicide and less medically severe parasuicides, were more likely to stay in individual therapy, and had fewer inpatient psychiatric days (Linehan et al., 1991). The authors revealed there were no between-group differences on measures of depression, hopelessness, suicidal ideation, or reasons for living, although scores on all four measures decreased throughout the year. Carboni (2012) investigated the relationship between mindfulness training, cognitive processes of attention regulation, and behaviour of children who had been diagnosed with ADHD. The study participants were four 8-year-old males with ADHD and off-task classroom behaviours. Each student was tracked over time following a baseline assessment. Teacher and parent ratings of the Behaviour Assessment System for Children™, Second Edition (BASC™-2) and Behaviour Rating Inventory of Executive Function® (BRIEF®) were completed pre- and post-test for each participant (Carboni, 2012). The results revealed that mindfulness training was effective in increasing the frequency of on-task behaviours for children.

DBT is a principle-based intervention not defined by specific format, techniques, or a set of skills but, rather, by the balance of acceptance and change within a dialectical framework (Linehan et al., 2006). DBT for children with EBD includes individual therapy and group skills training in which parents and children learn together. In

addition, mindfulness practices have shown promise as clinical treatments and must be actively pursued to maintain children's attention and motivation to participate in experiential exercises such as in-session practice, role-plays, and multimedia presentations (A. L. Miller et al., 2006). Modification of DBT for children calls for revisions to accommodate their developmental level. Clinicians who use DBT for children use materials and activities (e.g., cartoons, large font sizes, limited amount of text per page, and language geared for a second-grade reading level) designed to engage children and motivate skills building. The therapy is designed to facilitate introducing new skills into a child's repertoire and enable the generalization of these skills across contexts. Twohig, Field, Armstrong, and Dahl (2010) presented examples of experimental exercises such as balancing a feather, balancing act, tickle challenge, bubble challenge, fact or judgment, wrong play, and where do I feel it. Turner (2000) developed an adaptation of DBT for children with EBD in which skills training was incorporated into individual therapy sessions.

Interest in application of DBT-based approaches with children has grown rapidly in recent times and there is an expanding research base that suggests these are efficacious approaches to promoting psychological health and wellbeing (Goldstein et al., 2015; Perry-Parrish et al., 2016; Robertson, 2011; Wilks et al., 2016). DBT skills, including mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness were adapted from the adult and adolescent manuals (Linehan, 1993; A. L. Miller et al., 2006). Mindfulness practices are essentially attention-enhancing techniques that have shown promise as clinical treatments.

**2.4.3 Family therapy.** Research indicates that parent and family variables are highly influential in the intervention and treatment process (Gimpel Peacock & Collett, 2010). Prout and Brown (2007) suggested treatments aimed at these various systems can be conducted simultaneously and can ultimately impact the child. There is strong evidence within the empirical literature and RCTs that family therapy and family-based interventions are effective (Diamond & Josephson, 2005; Fristad, Goldberg-Arnold, & Gavazzi, 2003; Pears, Kim, Healey, Yoerger, & Fisher, 2015). Family therapy applied to children with EBD finds strength in the multidimensional, multi-systematic, functional, and brief care approach in which the child is viewed as the center of a variety of interacting systems (Bakker, Greven, Buitelaar, & Glennon, 2017; Chacko et al., 2015; Hogue et al., 2015; Perkins, & McLaughlin, 2015; Szapocznik, Muir, Duff, Schwartz, & Brown, 2015).

Family therapy approaches are designed to achieve objectives that include (a) creating a positive and supportive environment at home and in the community, (b) increasing family knowledge of therapeutic options, (c) enhancing motivation to change dysfunctional behaviours, and (d) assisting stakeholders with the development and implementation of intervention strategies that may improve relationships with others.

Fristad et al. (2003) examined the impact of adjunctive multifamily psychoeducation groups (MFPG) on mood-disordered children aged 8–11 and their families. The participants were 35 children and 47 parents from families randomly assigned to either immediate MFPG plus treatment ( $n = 18$ ), or a 6-month wait-list condition plus treatment ( $n = 17$ ). Parents reported increased parental knowledge about

childhood mood symptoms and better positive family interactions, children reported increased perceptions of parental support and, overall, MFPG resulted in increased utilization of appropriate services by families (Fristad et al., 2003). The results emphasized the need to further investigate psychoeducation in the treatment of childhood mood disorders. Diamond and Josephson (2005) examined randomized clinical trials conducted between 1995–2005 that included parents in the treatment of child and adolescent mental health disorders. The authors' review suggested family is key to treating substance abuse, depression, and anxiety disorders while effectively reducing academic and behaviour problems in children with ADHD when paired with other interventions such as medication (Diamond & Josephson, 2005). Pears et al. (2015) employed a RCT to examine the effects of a school readiness intervention that focused on children's self-regulation skills as well as parenting and parental involvement in school. Results showed that the intervention had positive effects on children's self-regulation and reduced ineffective parenting prior to school entry. This finding is significant because it demonstrates that parental involvement in school may be increased by efforts to improve parenting skills in general (Brotman et al., 2011).

Psychoeducation provides support to parents and youth living with EBD as it relates to transitions and behavioural concerns by fostering partnerships that support youth. Family models should help children with EBD transition to real-world scenarios by enhancing communication between family members, the community, and home (Parker, Zaboski, & Joyce-Beaulieu, 2016). In addition to enhancing parent–child communication, therapy that involves parents works to modify risk factors of coercive

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family interactions and poor parenting which play a role in causing and/or maintaining externalizing behaviour problems and delinquency (Ettinger, 2008; Ward, 1997).

Emphasis on family assessment is fundamental to the overall success of psychoeducation programming. The involvement of parents in this process is not limited to their roles as primary sources of influence on their child's perceptions (Guo, Scott, & Bowker, 2003; Sattler & Hoge, 2006). The use of a variety of consultation and assessment strategies in child therapy is a means of checking what clients know, their progress, and their learning. Summative and formative assessment should guide and embrace children's learning. Extensive research by the American Academy of Pediatrics in 2000 (Subcommittee on Attention-Deficit/Hyperactivity Disorder, 2011), Sattler and Hoge (2006), Beatch et al. (2008), and Csorba, Dinya, Plener, Negy, and Páli (2009) suggested the assessment and treatment of children is critical to successful interventions and therapy.

The family therapy approach works best when a long-term commitment and motivation for change is embraced by all. Families must remain actively involved in all aspects of their child's mental health treatment and the combined efforts of service providers, family members, and advocates are necessary to ensure that services effectively meet the needs of adolescents (George, McDaniel, Michael, & Weist, 2014). It is often helpful for clinicians using family therapy interventions for children with EBD to engage in analysis with eco-mapping to identify and involve significant supports within the client's system while exploring various precautions about issues to gain a rich understanding of the contributions of others (Johnson, 2016). Every precaution to

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maximize potential impacts on families and children should be considered while minimizing any negative impact on families. Consistency within programs and communication on what to do should be considered during the needs assessment.

A strength in family therapy for children with EBD is the parent's appreciation of quality programs and services that exist within Canadian provinces, municipalities, school boards, and related agencies. Family therapy aids in the overall success of programs that addresses a variety of issues. In recognizing these strengths and identifying the challenges and opportunities inherent to providing programs concerning families, the models will serve as an impetus in narrowing the gaps between the needs of families and the availability of services for them (Szapocznik et al., 2015). Within this setting, families and related agencies challenge, confront, and advocate with and on behalf of clients for the eradication of oppressive and discriminatory practices within individual, cultural, and systematic domains. The universal support structure promotes social justice and social change (Pears et al., 2015).

A few family focused interventions have demonstrated positive results for EBD in children. A number of empirically supported programs (e.g., Positive Behaviour Intervention and Supports, Second Step, the Good Behavior Game, Raising Healthy Children, Promoting Alternative Thinking Strategies, Fast Track Program) aim to reduce aggression and problem behaviours in elementary children through social skills training components as well as support children whose behaviours would not yet be considered in the clinical range requiring treatment (Webster-Stratton, 1999). The Family Check-Up is an intervention that focuses on the development of management skills (e.g., monitoring,



making rules, consequences and rewards, problem solving, active listening). Recently this program has been extended to elementary aged children (Dishion et al., 2014).

Clinical use of the reviewed therapy programs needs to be approached with caution due to the combination of approaches found in the literature and the lack of generalizability in results (Phillips, Stargatt, & Brown, 2012). Effective therapy programs for children with EBD involve stages of treatment. Children and families move with flexibility from one stage to another depending on particular needs and the severity of problems. Children engage with staff, develop trust, and form therapeutic alliances. Anderson-Hoagland (2008) suggested the key to successful learning is the quality of processing that occurs while actively engaging with maladaptive emotions and behaviours. Children and families are educated about EBD and mental illness, and are then encouraged to make meaningful, manageable, as well as realistic changes to improve their health.

The reviewed literature revealed the need for clinicians to promote self-motivating tools and be open to flexibility when implementing family therapy interventions (Fitzpatrick & Knowlton, 2009; Schunk & Mullen, 2012). Lauria-Horner (2008) suggested clinicians would do well to create self-change activities for children with EBD that intentionally provide a wide range of valuable experiences that offer permission to err, and possible solutions to problems while encouraging self-evaluation.

### **2.5 Examples of Best Practices**

Research on interventions for children exhibiting signs of EBD commonly shows that zero-tolerance policies in which children are automatically suspended or expelled as

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a result of specific infractions can be harmful to students with EBD, insofar as such policies remove already troubled or disengaged children from the teachers and counselors who are best equipped to help them address their difficulties (Lane, 2007). In addition, punishment-based interventions for children with serious EBD usually result in an increase in the problem behaviours (C. S. Anderson et al., 2009).

Current behaviour interventions allow for alternative approaches, prevention, and intervention. For children, successful teaching and learning models appear particularly complex because they must combine both effective therapeutic approaches and positive behaviour support strategies that promote prosocial behaviours, family training, and classroom management techniques. Consistent with a response-to-intervention framework, these tiered approaches are employed to meet the needs of children who have not responded adequately to universal preventive interventions (National Research Council and Institute of Medicine, 2009).

DelCarmen-Wiggins and Carter (2004) suggested that early, appropriate intervention, possibly capitalizing on the neuro-plasticity of the young brain, can achieve better outcomes than treatment commencing years later. The authors highlighted the following interventions for students exhibiting signs of EBD: interventions focused on classroom management, social skills instruction, conflict resolution, anger management, and zero-tolerance policies. This approach clarified the misconceptions that children must behave appropriately to learn and that emotion, behaviour, and classroom instruction are unconnected. Lane (2007) noted that recent approaches have become more clearly directed toward student motivation to change and early school-wide

programming for children with (or at risk for) EBD. The authors identified key evidence-based practices for supporting students with or at risk of EBD as including functional behavioural assessments (FBAs), positive behavioural reinforcement, social skills training, peer mentoring, parent training, coping skills and behavioural self-control, problem-solving training, check-in/check-out, anger management, and time-out.

**2.5.1 Functional behavioural assessments.** A FBA is a process by which the school seeks to understand why a student is behaving in a certain manner. More specifically, it has been described as a systematic way of gathering information in order to determine a relationship between a child's problem behaviour and aspects of the environment (Gable, Park, & Scott, 2014). The core elements of Tiers 2–3 in the B.E.S.T. Program include a FBA, team-based comprehensive assessment, linkage of behaviour supports, and data collection for decision making. Information gained from performing a FBA should be implemented into the modification of instruction and material adaptations for children with EBD. Focusing on assessment information, individualized interventions are designed based on (a) prevention of problem contexts, (b) instruction on functionally equivalent skills, (c) instruction on desired performance skills, (d) strategies for placing problem behaviour on extinction, (e) strategies for enhancing contingent reward of desired behaviour, and (f) use of negative or safety consequences if needed (Crone, Hawken, & Horner, 2015; Horner & Sugai, 2015). Gunter, Denny, and Venn (2000) identified time, level of support, input, difficulty, output, participation, alternative curricular goals, and substitute curriculum as variables that can be adapted to effectively improve outcomes for children with EBD.

As part of Tiers 2–3, it is common for FBAs to be completed for an individual student to identify specific relationships and the circumstances that trigger behaviours that impede a child’s ability to learn (Barnes, Smith, & Miller, 2014). FBAs include an assessment of strengths, challenges, skills deficits, and interests. Information gathered is summarized and hypotheses are developed regarding factors influencing behaviour. Critical to Tier 2–3 interventions is the development of a behavioural Individual Program Plan (IPP) at the school level to establish attainable outcomes, coordinate professionals, and seek resources from the CCRSB Student Services Department as needed.

Strategies used commonly in the behavioural IPP include outside agency intervention (e.g., pediatric and pharmacological care), individual therapy, group counseling, and parent education (Pindiprolu, 2009). Positive reinforcement is an integral component of this approach, and adjustments to the individual behaviour plan may include analysis of a variety of environmental contexts to reduce the likelihood of the problem, teach replacement skills, build general competencies, define consequences to promote positive behaviours, and develop a crisis management plan (Gable et al., 2014). The site-based team monitors each child’s plan once implemented to assess its effectiveness.

**2.5.2 Positive behaviour reinforcement.** There is ample evidence that positive mental health is critical to academic success (Hoagwood & Johnson, 2003). Meeting the needs of all children with EBD requires an intensity continuum ranging from providing positive support addressing the least intensive behaviours of all students, to providing supports addressing the most intensive behaviours of a limited number of students

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(Turnbull et al., 2002). Positive reinforcement occurs when the consequence resulting from the desired behaviour increases the probability that the desired behaviour will continue (McLeod, 2007). If a child performs well, that child may receive a reward, which reinforces the desire to achieve positive social, emotional, and academic outcomes. Negative reinforcement occurs when a negative consequence is withheld if the behaviour you desire is demonstrated, which will increase the probability that the behaviour you are seeking will continue (McLeod, 2007). Children will continue to perform their best to avoid the negative consequence, which is not the same as punishment. This theory is an effective tool for investigating mechanisms of control of children's behaviour, but it does not focus on the causes of behaviour.

A strength of the positive reinforcement approach applied to education for children with EBD is the learners' focus on clearly defined goals. Fundamental approaches to reinforcement include the concepts that (a) learning is manifested by a change in observable behaviour rather than cognitive thought processes, (b) learning environments shape behaviour, and (c) the principles of contiguity (minimum time between two events to form a bond) and reinforcement (ways to ensure repetition) are central to explain learning (Merriam, Caffarella, & Baumgartner, 2007). For example, in Check In/Check Out children check in with an adult in the morning, obtain a point sheet that they carry throughout the school day to gather performance feedback from teachers, and check out with an adult at the end of the day. A token economy is used in conjunction with Check In/Check Out. Children earn tokens (e.g., points, bucks) for meeting their individualized, predetermined point percentage goal for that day, which are

eventually exchanged for preferred backup reinforcers (i.e., activities, privileges, or tangible items; Filter et al., 2007; Myers, Briere, & Simonsen, 2010; Ross & Horner, 2009). Within the model, there is an emphasis on increased supervision of school-wide activities by staff. O'Reilly et al. (2005) suggested activity schedules and clear, predictable expectations benefit all children (i.e., universal, individual, tertiary).

Work conducted by Gresham (2004) and others offered comprehensive studies on positive reinforcement programming with an emphasis on how to create school environments that promote thinking, planning, and sharing. Bowman-Perrott et al. (2007) suggested positive reinforcement is a good form of instruction for children with EBD because task-oriented learning is easily understood. The objective nature of evaluation eliminates the subjective assessments of students by teachers and enables the child to meet predetermined goals while halting undesired behaviours (Merriam et al., 2007). The behaviour modification model for reinforcement theory applied to children with EBD should consist of (a) specifying the desired behaviour as objectively as possible, (b) measuring the current incidence of desired behaviour, (c) providing behavioural consequences that reinforce desired behaviour, and (d) determining the effectiveness of the program by systematically assessing behaviour change (Fitzpatrick & Knowlton, 2009; D. L. Watson & Tharp, 2002). For educators, it is important to observe the effectiveness of the reinforcement used to determine if reinforcement has been ineffective and subsequently identify a different strategy needed for the future.

**2.5.3 Social skills training and peer assistance.** Interventions such as social skills groups provide children in Tiers 1–3 with the tools to exercise strategies for

positive conflict resolution and problem solving. Social skill interventions should be a component of interventions for students who exhibit internalizing and externalizing behaviours (Baskin et al., 2010). Participating in a social skills group provides children with EBD tools with which to communicate successfully and a time to use these tools in real-life situations. Children learn to equate this time with caring and begin to reciprocate in other contexts such as home life (A. J. Smith, Jordan, Flood, & Hansen, 2010).

Social skills training or social-emotional learning can be effective in bolstering students' coping abilities and addressing an array of emotional and behavioural problems. Durlak, Weissberg, Dymnicki, Taylor, and Schellinger (2011) affirmed social skills training that includes self-management interventions (self-monitoring, self-evaluation, goal setting, strategy intervention) implemented across grade levels has been associated with enhanced prosocial and academic achievement. Several meta-analyses have demonstrated the efficacy of social skills interventions in changing peer relations and social competence (Albrecht, Mathur, Jones, & Alazemi, 2015; Chapman, Buckley, Sheehan, & Shochet, 2013; Wang, Parrila, & Cui, 2013; Wong et al., 2015).

Social skills curricula deliver direct and explicit instruction and include opportunities to practice learned skills (Bruhn, Lane, & Hirsch, 2014; Cook et al., 2008; Gargiulo, 2012; Pierangelo & Giuliani, 2008). In a meta-analytic review, Cook et al. (2008) found most social skills training programs promote skill acquisition, enhance skill performance, reduce or eliminate competing problem behaviours, and facilitate generalization. Common to social skills programs are guided instruction, use of peer

mentoring, identifying situations in which the skills may be used, positive and negative modelling, role playing, performance feedback, as well as reinforcement for skill use.

Hirsch (2016) suggested stakeholders should carefully prioritize critical social skills that need to be improved and implement teaching through the use of positive demonstration, explanation, and modelling while having the child practice skills.

As stressed in the literature reviewed, peers play an important role in social development and learning for children with respect to empathy, caring, social responsibility, negotiation, persuasion, cooperation, compromise, emotional control, and conflict resolution (Al-Hendawi, 2012; Falk & Wehby, 2001; Leflot, Onghena, & Colpin, 2013; J. B. Ryan, Pierce, & Mooney, 2008; Wehby, Lane, & Falk, K, 2003). Peer skills for children with EBD include joining a group, giving others praise, and appropriate school-wide play. Peers can provide social and emotional support, in addition to acting as socialization agents who model behaviours. Stebing (2016) noted using peers (class-wide peer tutoring and peer-assisted learning strategies) can improve social and academic achievement, time on task, and behaviour. Of peer-assisted techniques, class-wide peer tutoring is the most widely recognized effective intervention that aids children with EBD in both behavioural and academic progress (Farley, Torres, Wailehua, & Cook, 2012). This strategy involves assigning children to pairs or small groups to both assist and model for each other during different content areas across curricular materials (Farley et al., 2012). It should be emphasized that social skills training and peer assistance employed in Tiers 1–3 are meant to function as additional strategies that should be added to effective psychotherapeutic treatment.



**2.5.4 Parent training.** There is a growing body of research documenting the efficacy and effectiveness of preventative interventions that involve parents in helping children navigate emotional behavioural challenges (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000). The social-cognitive model serves as a conceptual framework that highlights the importance of parents as experts in determining appropriate progressive outcomes for their children. The parent–child relationship is critical to development because it is the child’s primary source of care and interaction for growth. In their meta-analysis, Kaminski, Valle, Filene, and Boyle (2008) found that several family factors were important elements of effective emotional behavioural programs, including parent training and informing parents about EBD. The earlier parental involvement begins the more powerful the effects can be for changes to emotional behavioural dysfunction in children living with EBD.

Parent training program components associated with positive outcomes for children included (a) problem solving; (b) teaching parents to promote children’s cognitive, academic, or social skills; and (c) providing additional services as needed (e.g., anger management techniques; Brooks, 2005; Crosby & Perkins, 2004). As previously discussed, there are several evidence-based treatments associated with CBT, DBT, and family therapy that involve parents and caregivers. Examples include: (a) trauma-focused cognitive behavioural therapy (TF-CBT) which has been shown to be effective in reducing mental health symptoms related to violence exposure, anger management, and sexual abuse (J. Cohen, Mannarino, & Deblinger, 2006); (b) functional family therapy, which is a family-based intervention program that targets youth between the ages of 11–

18 who are at risk for and/or presenting with delinquency, violent or disruptive behaviour, or substance use (Baughman Sladky, Hussey, Flannery, & Jefferis, 2015); and (c) brief strategic family therapy, which is a short-term (approximately 12–15 sessions over 3 months) family-based intervention for children and youth ages 6–17 who are at risk for substance abuse and behaviour problems (Robbins et al., 2007).

Pears et al. (2015) called for the active and consistent involvement of parents in EBD interventions. In a large-scale randomized trial based on parent-reported outcomes, Bearss et al. (2015) found a 24-week parent training program was superior for reducing disruptive behaviour. Parental involvement affects development, behaviour, self-identity, and regulation along with the growth of self-esteem, competence, and resiliency (Boyce et al., 2006). Herbert, Harvey, Roberts, Wichowski, and Lugo-Candelas (2013) found that parental support effectively reduced ADHD symptoms and associated problems in preschool-aged children. These activities are coupled with regular parent communication and reviews of child progress by teachers and support professionals. The data are then used to determine each child's progression and whether the program should be revised. This approach works particularly well for children who are seeking attention from adults.

**2.5.5 Coping skills and behaviour self-control.** The intervention approach for coping skills and behaviour self-control is based upon a cognitive behavioural model with a focus on training children with EBD in interpersonal and self-management skills. Deep learning requires that learners be willing and able to take on a new identity in the world; to see the world and act on it in new ways (Gee, 2007). The primary goal of the

interventions is for children to master skills that will help them maintain functional prosocial patterns within school, home, and the community.

In working to develop these skills, children and families, support professionals, and educators identify high-risk situations and environmental circumstances. These high-risk situations include precipitants of dysfunction that are external to the child, as well as internal events such as cognitions and emotions. Once situations that represent a risk are identified, children must develop skills to cope with them. During school-based interventions, children are taught basic skill elements for dealing with common high risk problem areas and are encouraged to engage in problem solving, role playing, and homework practice exercises that will enable them to apply the new skills to meet their own particular needs (Webster-Stratton, 2015). Individual intervention can be complemented within family therapy and possibly group therapy. The goal is to unlearn self-defeating attitudes and behaviour. With young children, coping skills, behaviour modification, and problem solving often incorporate a positive reinforcement reward system.

Coping skills interventions, which have been researched largely in the context of ADHD, have been defined as methods used by children to manage, monitor, record, and assess their behaviour or academic achievement (Reid, Trout, & Schartz, 2005). Citing a 2012 study of students with learning disabilities and ADD/ADHD, Farley et al. (2012) noted that teachers have found behavioural modification and self-management interventions simple to implement and straightforward for children to learn. Sukhodolsky et al. (2015) highlighted coping skills targets for children to reduce anger, irritability, and

aggression. As reviewed, coping skills have received extensive support in RCTs. Numerous structured programs exist for helping children learn to manage their anger more effectively. For example, the Anger Coping Program (Muratori et al., 2016) is composed of 18 sessions with a focus on physiological awareness, perspective taking, social problem solving, and self-instruction to inhibit impulsive responding. The Coping Power (Lochman, Wells, Qu, & Chen, 2013) intervention consists of 34 structured cognitive-behavioural group sessions and periodic individual sessions designed to positively affect the child's short- and long-term goals, organization and study skills, anger management skills, social skills, and problem-solving skills. Both interventions have a strong parental component.

A strength of behaviour modification applied to education is the child's focus on clearly defined goals. Gresham (2004) conducted a comprehensive study on behavioural programming with emphasis on how to create school environments that promote thinking, planning, and sharing. Highly structured classroom environments play an important role when implementing interventions for children with coping skill and self-management deficits. Gargiulo (2012) claimed enforceable rules that are positively worded, goal setting, self-monitoring strategies, modelling, cueing, rewards for successive approximation to goals, school-home notes, intentional student seating and grouping arrangements, and aesthetically appealing classroom ambience are important to overall success rates in modifying behaviours. Such interventions can be effectively implemented at various grade levels.

**2.5.6 Problem solving training.** Problem-solving interventions adopt a critical lens, are child-centered, and promote opportunities for consciousness raising, inclusion, and social action. In these interventions, symptoms synonymous with EBD are accepted as typical, normal reactions to stress and dysfunctional cognitive thinking rather than indicators of pathology. In opposition to current medical models of practice, problem-solving approaches avoid linear deterministic explanations and follow a holistic approach towards assessments (Webster-Stratton, 2015). Stakeholders must maintain a strengths-based focus while avoiding creating or reinforcing blame, guilt, and dependency. Children with EBD are not labelled as sick, deviant, or blamed for their problems as linkages are made within broader social contexts and problems are externalized (Finlon et al., 2015). Children are encouraged to explore their feelings and emotions (e.g., anger, grief, anxiety, blame). Problem-solving interventions have several strengths: dichotomous thinking is avoided, stakeholders take a neutral position, a collaborative process of strategy implementation is supported, and children are encouraged to exercise choices and take charge of their lives (Herrenkohl, & Favia, 2016).

Problem-solving approaches provide collaborative opportunities for thorough comprehensive explorations, including analyses of children's challenges and their positions within the classroom, school, family, and social environments. Often educators and professional support staff are seen as consultants and have a facilitative rather than directive role. Children are encouraged to gain control over their lives, are given the right to make choices, about all matters that concern them, and are respected for their abilities. Hastings, Zahn-Waxler, and McShane (2006) suggested that consciousness

raising may help children with EBD increase their sense of control and externalize their attributions of blame, consequently increasing self-esteem and reducing dysfunctional thoughts and actions. Educators strive to achieve a rapport with children while recognizing the value of mutual sharing, growth, learning, and empowerment (Merrill et al., 2016). Problem-solving strategies contextualize children's problems and provide support. Time-out is an example of a problem-solving intervention that takes children away from possible negative interactions and allows for a cooling-off period. Stakeholders utilizing problem-solving techniques are interested in finding the root of problems and encouraging and assisting children to gain empowerment to remedy changes within their environments.

### **2.6 Transferring Research into Practice**

In the last decade, research on school-based mental health behavioural services for children with EBD has increased due to the growing awareness that EBD is a public health problem that impacts children and the broader social environment. Jiménez-Barbero et al. (2016) indicated that although a clear solution to the treatment of EBD has yet to be identified, the school environment plays a vital role in nurturing the emotional development and adjustment of children identified with or at risk for developing EBD. Most EBD programs that have been evaluated with RCT designs employed a universal tiered approach to support children with EBD (Bradshaw, 2015). However, specifying precisely what constitutes a quality program for early intervention is not a simple task. Current conceptualizations suggest that successful early intervention cannot be one-dimensional in nature, but must consist of a complex series of interactions and

transactions that synergistically serve to nurture and enhance the development of both the child and family.

**2.6.1 Positive behaviour intervention support (PBIS).** A number of studies have been conducted to identify the most effective and promising approaches to helping children with EBD. One such program is PBIS, which systematically and consistently aims to prevent disruptive behaviour problems and promote positive school climate through setting-level changes (Sugai & Horner, 2006). In PBIS, children and staff work to establish positive behaviour expectations using intrinsic and extrinsic rewards, reworking teacher–child communication, and employing data tracking to best inform decision making by stakeholders. The model aims to alter the school environment by creating both improved systems (e.g., discipline, reinforcement, data management) and procedures (e.g., collection of office referral data, professional development) in order to promote positive change in child and teacher behaviours (Kutash, Duchnowski, & Lynn, 2006).

Researchers have documented the importance of school-wide intervention efforts that provide positive emotional behavioural support, establish a common set of expectations for positive behaviour across all school contexts, and involve all school staff in prevention activities (Ross & Horner, 2009). Kutash et al. (2006) suggested most experts in the field agree that the development of school-wide positive based supports is in its infancy, but the early results of implemented interventions and the growing body of support for universal and selective levels for children who have EBD is very promising. This positive behavioural intervention approach was intended to create safer and more

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nurturing environments founded on children's motivations to change, attachment to others, meta-cognition, and reinforcement of behaviours adapted for application based on effectiveness with individual children (Novins, Green, Legha, & Aarons, 2013). Benson, Leffert, Scales, and Blyth (2012) highlighted the development of two theoretical constructs, developmental assets and asset-building communities, in growing awareness of linkages between positive school experiences and mental health, self-esteem, and physical wellbeing. The authors presented a conceptual overview of both constructs, a descriptive account of the developmental assets within a large aggregate sample of approximately 99,000 sixth to twelfth graders, and a summary of change strategies shaping asset-building movements in over 200 communities. The empowerment assets represent a constellation of factors that encourage children and adolescents to become actors within the community, with a focus on being valued and useful within the community (Benson et al., 2012).

Researchers who recently conducted randomized effectiveness trials of PBIS reported significant effects on aggression and peer rejection as well as school climate and discipline problems (Bradshaw, Waasdorp, & Leaf, 2015; Waasdorp, Bradshaw, & Leaf, 2012). Waasdorp et al. (2012) completed a group RCT of the universal PBIS model in 37 Maryland public elementary schools to determine the impact of the model on discipline problems and the school environment. An open cohort design was used, allowing new children to enroll at each data collection point. The authors matched schools on select baseline demographics (e.g., school enrollment, suspensions). Twenty-one schools were randomized by the research team to the intervention condition and 16 schools that



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refrained from implementing PBIS for 4 years were assigned to the comparison condition. Annual assessments of quality of PBIS implementation in all 37 schools by trained assessors using the validated School-Wide Evaluation Tool demonstrated that all schools with PBIS reached and maintained high-fidelity implementation by the end of the trial (Waasdorp et al., 2012)

Bradshaw et al. (2015) examined variations in the effects of PBIS based on children's baseline patterns of behaviour problems and social-emotional skills using data from a randomized controlled effectiveness trial. Data came from 12,344 elementary school children (52.9% male; 45.1% African American and 46.1% Caucasian) in 37 elementary schools using the Teacher Observation of Classroom Adaptation–Checklist (TOCA–C; Koth, Bradshaw, & Leaf, 2009). The researchers performed latent profile analyses on teachers' baseline ratings of children's problems, concentration, social-emotional functioning, and prosocial behaviour. The results revealed four latent classes (high-risk, 6.6%; at-risk, 23.3%; normative, 36.5%; socially-emotionally skilled, 33.6%), which suggests that the effects of SWPBIS on student outcomes tend to be greatest among at-risk and high-risk children (Bradshaw et al., 2015).

An example of a similar program implemented in Nova Scotia is the Positive Effective Behaviour Support (PEBS) Program. In May 2005, the Nova Scotia Department of Education and Early Childhood Development created a working committee to examine issues related to the effectiveness of policies and practices designed to address emotional and behavioural challenges as well as the effective engagement of students in their learning. PEBS was introduced to provincial schools as a

behaviourally based systems approach to enhance the capacity of schools, families, and communities to design effective environments based upon the link between research-validated practices and the environments in which teaching and learning occur (Government of Nova Scotia, 2016). In Nova Scotia, the School Code of Conduct Guidelines supported the development and implementation of a comprehensive, school-wide PEBS approach as outlined in the Council of Atlantic Ministers of Education and Training (CAMET) Resource for Schools.

As a school-wide program, PEBS is intended to establish a climate in which appropriate behaviour is the norm. PEBS is not a pre-purchased program, but an initiative that helps schools create a positive, safe, and learning-rich environment. PEBS is an interactive approach that includes opportunities to correct and improve four key elements: (a) outcomes, (b) data, (c) practices, and (d) systems (Meyer & Young, 2014). Each school that implements PEBS defines a set of outcomes and expected behaviours that are supported and emphasized by students, families, and educators.

To increase the likelihood that children receive positive reinforcement, school-based interventions and strategies are based on research and supported by data which is used to identify status, need for change, and effects of interventions (Kurusu, 2015). Franks et al. (2015) emphasized that without data and evidence, interventions may target the wrong areas and be ineffective or irrelevant. PEBS requires a whole-school systems approach in order to be effective. Meyer and Young (2014) demonstrated PEBS is an effective approach to behaviour management and yields positive results in the overall sense. Although schools can differentiate programs to meet environmental needs,

common to all PEBS programs is a continuum of positive behaviour support for all students within a school which is implemented in all areas, including classroom and non-classroom settings (e.g., hallways, restrooms). It is important for stakeholders to understand each school's environmental strengths and challenges when implementing PEBS (Adams, 2007).

**2.6.2 Second Step: A violence prevention curriculum.** Second Step is a social-emotional learning program for children and adolescents aimed at reducing impulse and aggression behaviours while increasing children's motivation, attachment to others, and social skills. The curriculum is focused on three core competencies: empathy, impulse control and problem solving, and anger management (Baughman Sladky et al., 2015; Frey, Hirschstein, & Guzzo, 2000). This award-winning program is utilized in more than 20,000 schools in 21 countries, including the United States, Canada, Britain, Denmark, Germany, Sweden, Slovakia, and Japan (Malecki & Elliott, 2002). Second Step offers developmentally appropriate curricula for children in grades pre-Kindergarten through middle school. At the foundation of the program is teaching problem-solving and emotion-management skills to reduce disruptive behaviour in the classroom and help children focus on their work, thereby allowing teachers more time to teach.

In the Second Step program, children participate multiple times per week in school-based sessions led by trained clinicians who follow a common curriculum. Parent training is facilitated by clinicians for 6 weeks. A focus of the training is strengthening child-parent attachment styles while working to provide a nurturing and caring setting. Teachers complete professional development led by program clinicians focusing on

emotional and behavioural problems combined with management strategies. The Second Step curriculum includes letters that are sent home throughout the school year informing parents and families of the topics and skills that their students are learning, including calming-down strategies, problem-solving steps, and anger management skills (Saracho, 2016). Skills taught in the Second Step program are important to social and emotional learning which are, in turn, key to preventing high-risk behaviours, including drug use, violence, unprotected sex (which can lead to HIV/AIDS, sexually transmitted diseases, and adolescent pregnancy), and suicide (Gavine, Donnelly, & Williams, 2016; Herman, Reinke, Thompson, & Faloughi, 2015).

Second Step's effectiveness has been tested in several RCTs with promising, but inconsistent results (Frey, Nolen, Edstrom, & Hirschstein, 2005; Hussey & Flannery, 2007, U.S. Department of Education, 2013). A number of studies of Second Step published between 1997 and 2012 suffered from insufficient evidence, problems with study design, inadequate sample sizes, secondary meta-analysis, and research literature reviewed (e.g., Ableser, 2003; Frey et al., 2005; Frey & Sylvester, 1997; A. V. S. Green, 2008; Lang, 2012; Jakob, 2006).

Frey et al. (2005) studied the effects of the Second Step Program and addressed the relations between social cognitions and prosocial and antisocial behaviour. Children ( $n = 1,253$ ) in intervention and control groups were evaluated by teacher ratings, self-reports, and observation in two conflict situations. The researchers found intervention children were more likely to prefer prosocial goals and give egalitarian reasons for satisfaction compared to the control group children (Frey et al., 2005). Teacher ratings of

social behaviour showed improvement with respect to social-cognitive models of aggression and prosocial conduct.

Hussey and Flannery (2007), in a randomized controlled study of Second Step involving 790 second- and third-grade students in Washington State, revealed that the curriculum reduced physically violent behaviour in participants and increased the use of pro-social behaviour, with effects on physical aggression in the classroom lasting up to 6 months. Students in the study who did not receive the Second Step curriculum showed increases in physical and verbal aggression. Other studies of Second Step have reported no change in violent behaviour (Botzer, 2003), or antisocial behaviour (McCabe, 2000; Taub, 2002). Espelage, Low, Polanin, and Brown (2013) conducted a more recent RCT of 36 middle schools that implemented the Second Step intervention and found that 42% of students were less likely to self-report physical aggression than students in control schools (Espelage et al., 2013).

**2.6.3 The Good Behavior Game.** This game is an evidence-based classroom management strategy that targets antecedents of problem behaviour and aggression in elementary children while helping them learn to work together to create a positive learning environment. First tested in 1969, the program uses classroom behaviour management as a primary strategy to improve on-task behaviour and decrease aggressive behaviour (Barrish, Saunders, & Wolf, 1969; Baughman Sladky et al., 2015; Harris & Sherman, 1973; Kellam et al., 2008; Lannie & McCurdy, 2007; Medland & Stachnik, 1972). The Good Behavior Game was tested in first- and second-grade classrooms in Baltimore beginning in the 1985–1986 school year. Follow up at ages 19–21 found

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significantly lower rates of (a) drug and alcohol use disorders, (b) nicotine smoking, (c) antisocial personality disorder, (d) delinquency and incarceration for violent crimes, (e) suicidal ideation, and (f) use of school-based services among students who had played the Good Behavior Game (Kellam et al., 2008). Approximately 20 independent replications of the Good Behavior Game across different grade levels, different types of students, different settings, and in some cases with long-term follow up showed strong, consistent positive impacts on impulsive, disruptive behaviours of children (Embry, 2002). The effects of the Good Behaviour Game were generally strongest among males with higher levels of aggressive disruptive behaviour, who, when exposed to the game starting in early elementary, had lower rates of antisocial behaviours and reduced rates of mental health service use, compared to those in the control group (Kellam et al., 2011; Poduska et al., 2008).

In the Good Behavior Game, a classroom-wide team format and positive reinforcements (rewards) are used to socialize children to the role of student. Teams are selected by the teacher and balanced with regard to gender, aggression, disruptive behaviour, and shy or socially isolated behaviour (Kellam et al., 2011). The team and peer-assistance approach uses peer encouragement to help children follow rules and learn how to be good students. Basic classroom rules of student behaviour are posted and reviewed, and each team is rewarded if team members commit a total of four or fewer infractions of the classroom rules during game periods (Kellam et al., 2011). The intervention is phased into the environment with gradual increases in both length of time played and frequency at regular intervals throughout the academic year. Over time, the

Good Behavior Game is played at different times of the day, during different activities, and in different locations, so the game evolves from being highly predictable in timing and occurrence with immediate reinforcement to being unpredictable, with delayed reinforcement so that children learn that good behaviour is expected at all times and in all places (Kellam et al., 2011).

Modifications to the Good Behavior Game within schools often include (a) soliciting children's input to increase involvement in designing rules, (b) attempts to state rules in positive terms, (c) observation of class behaviour, as well as (d) a comparison classroom and teacher and administrator involvement in instituting interventions coupled with adult involvement in delivering reinforcement. Reinforcement often consists of classroom activities conducted by the teacher with winning children. This promotes each child's positive behaviour by rewarding children for complying with appropriate behaviour criteria, such as working quietly, following directions, or being polite to each other (Flower, McKenna, Bunuan, Muething, & Vega, 2014). Several replications with shorter follow up periods have provided similar short-term results.

**2.6.4 Raising Healthy Children Program.** The Raising Healthy Children (RHC) Program focuses on creating a caring community of learners. Based on the social development model, this program is designed to increase protective factors such as opportunities for prosocial involvement and decrease risk factors such as exposure to antisocial behaviours (Catalano & Hawkins, 1996). The program includes universal classroom interventions, universal family group training sessions that includes five sessions on family management skills, group workshops, selected topic workshops, and

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in-home problem-solving sessions. The sessions are conducted by school-home coordinators who are classroom teachers or specialists with experience in providing services to parents and families. The student intervention consists of summer camps targeting students with academic or behavioural problems who are recommended for the program by teachers or parents (Hawkins, Kosterman, Catalano, Hill, & Abbott, 2005). As a wraparound service, in-home services are provided for students referred for behaviour or academic problems. Student activities emphasize classroom management, conflict management, problem solving, refusal skills for children, and in-home services for high-risk families (Lonczak, Abbott, Hawkins, Kosterman, & Catalano, 2002). Teachers and support professionals participate in ongoing upgrading sessions to further reinforce teaching strategies.

The goal is to decrease negative student behaviours that impact teaching and learning environments. The approach incorporates school, family, and individual programs to promote key elements that research has shown are critical for creating strong connections and bonds that children need to succeed in school and life: opportunities, skills, and recognition (Haggerty, Fleming, Catalano, Harachi, & Abbot, 2006). The program works to create connections in children's lives by committing to comprehensive school-wide strategies to strengthen instructional practices and family involvement. Positive reinforcement for children and adults is established to ensure objectives are carried out in a consistent and timely manner.

Targeted protective factors include: (a) bonding to prosocial peers and school, (b) modelling prosocial values and norms, and (c) encouraging school and family



involvement. (Catalano et al., 2003). Increasing a child's motivation to make positive changes to behaviours is the foundation of the program. The school program is based on the belief that every teacher makes a difference in the life of a child, that every child can succeed, and that the family is an important partner in learning. Staff development for teachers consists of workshops and classroom coaching for instructional improvement in classroom management that focus on cooperative learning methods, strategies to enhance student motivation, student involvement and participation, reading strategies, as well as interpersonal problem-solving skills (Lonczak et al., 2002).

The results of a number of RCTs indicated that compared to their peers who did not receive the intervention, children in the intervention groups had significantly higher teacher-reported performance, improved long-term attachment and commitment to school, better school achievement, and reduced aggression and use of substances (Brown, Catalano, Fleming, Haggerty, & Abbott, 2005; Catalano et al., 2003). For example, Catalano et al. (2003) studied 938 first- or second-grade elementary students who were enrolled in 10 area schools in the Pacific Northwest participating in the RHC program, and randomly divided into two groups those receiving RHC and peer controls. The authors examined data collected for 18 months after implementation and focused on academic and behavioural improvements within the school environment. Using hierarchical linear modelling, Catalano et al. (2003) reported that students participating in the program, compared to their peers who did not receive the intervention, had significantly higher teacher-reported academic performance ( $t$  ratio = 2.27,  $p < .001$ ) and a stronger commitment to school ( $t$  ratio = 2.16,  $p < .03$ ). Similarly, teachers reported

that RHC students showed a significant decrease in antisocial behaviours ( $t$  ratio = -2.43,  $p < .02$ ) and increased social competency ( $t$  ratio = 2.96,  $p < .01$ ) compared to peers in the control group (Catalano et al., 2003). These findings show some similarities to other programs that are more curriculum-based or focused on at-risk populations, such as PATHS® and Second Step.

**2.6.5 Promoting alternative thinking strategies (PATHS®).** This school-based preventive intervention model was designed to improve children's abilities to discuss and understand emotions by promoting children's emotional development, self-regulation, and social problem-solving skills. PATHS® is evidenced-based and has been in use for over 20 years in a number of countries. The curriculum consists of lessons for elementary level children (K–6) that include developmentally appropriate pictures, photographs, posters, and additional materials. Five conceptual domains, integrated in a hierarchical manner, are included in PATHS® lessons at each grade level: self-control, emotional understanding, positive self-esteem, relationships, and interpersonal problem-solving skills (Crean & Johnson, 2013). The core of PATHS® involves facilitating the relationship between cognitive-affective understanding and real-life situations for children. The PATHS® program is designed to be taught two to three times per week with daily activities that promote generalization and support ongoing positive behaviour. Teachers have the flexibility to adapt activities to suit the particular needs of their classroom students (Riggs, Greenberg, Kusché, & Pentz, 2006).

In Canada, the program has seen extensive use in Nova Scotia public schools. In Nova Scotia, the program started as a research project for Canadian Mental Health. It

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aimed to promote child mental health and social and emotional competence via a structured curriculum with a clear theoretical basis and linked, measurable developmental objectives (Seifer, Gouley, & Zabriski, 2004). Children receiving PATHS® teaching showed better post-intervention emotional knowledge, self-regulation, and related skills compared to control groups. Teachers and parents describe children in the Nova Scotia program as better adjusted and exhibiting higher levels of social interaction, emotion regulation, and social skills (Domitrovich, Cortes, & Greenberg, 2007).

PATHS® has been found to be effective in terms of improvement of children's social, emotional, and behavioural competence in other geographic locations. RCTs and meta-analyses have suggested that after exposure to the PATHS® program children had higher emotional knowledge skills and were rated by parents and teachers as more socially competent compared to peers, and socially withdrawn at the end of the school year compared to control groups (Domitrovich et al., 2007; Kam, Greenberg, & Kusché, 2004; Schonfeld et al., 2014; Seifer, Gouley, Miller, & Zabriski, 2004). For example, Domitrovich et al. (2007) reported results following 9 months of an adaptation of PATHS® (Head Start) for preschool-age children in 20 classrooms (10 intervention and 10 control classrooms) in two Pennsylvania communities. Using child assessments and teacher and parent behaviour assessments at the beginning and end of the school year, Domitrovich et al. (2007) found that after exposure to PATHS®, intervention children had higher emotional knowledge skills and were rated by parents and teachers as more socially competent compared to peers who did not participate in the program.

**2.6.6 The Fast Track Program.** This program is a social-emotional learning curriculum for elementary aged students aimed at reducing external antisocial behaviour across multiple contexts by promoting alternative thinking strategies in an attempt to prevent chronic and severe conduct problems for high-risk children (Nix, Pinderhughes, Bierman, & Maples, 2005). The intervention is based on research from the United States that utilizes a multidimensional approach involving school, home, and support services. The main goals of the program were to (a) increase communication and bonds between school, home, and the individual; (b) enhance children's social, cognitive, and problem-solving skills; (c) improve peer relationships; and (d) ultimately decrease disruptive behaviour (Conduct Problems Prevention Research Group, 1999). Fast Track offers stakeholders a variety of programs within the tiers. Implemented throughout Canada, the Fast Track Program offers a long-term intervention program that follows children from the beginning of the first grade. Education facilitators help to implement class-wide cognitive and social development curriculum, classroom support, social skill building, and tutoring (Shuang, 2006).

Research synthesis identified the program as an opportunity to establish positive mental health for all students rather than focusing only on children with diagnosed mental health disorders. Analysis has demonstrated the Fast Track Program is effective for elementary aged children in reducing aggression and conduct problems, boosting social skills development, and also improving parenting strategies (Conduct Problems Prevention Research Group, 1999, 2002, 2004; National Center for Health Statistics and National Center for Health Services Research, 2001). When the intervention was

implemented with fidelity and sustained over time with careful attention paid to team-based planning, data-based decision making, and building infrastructure, outcomes were positive for children and families (Harn, Basaraba, Chard, & Fritz, 2015).

A number of RCTs showed decreased prevalence rates of CD, ODD, ADHD, and externalizing disorders which prevented or reduced adult psychopathology long term (Conduct Problems Prevention Research Group, 2002, 2004; Dodge et al., 2015). Dodge et al. (2015) tested the efficacy of early intervention to prevent adult psychopathology and improve wellbeing in children whose conduct problems were detected in school very early. The participant group consisted of kindergarten students ( $N = 9,594$ ) in three cohorts (1991–1993) at 55 schools in four communities who were screened for conduct problems, yielding 979 early starters (Dodge et al., 2015). The authors randomly assigned children by school cluster to a 10-year intervention or control. The intervention goal was to develop social competencies in children that would carry them throughout life. The program included social skills training, parent behaviour-management training with home visiting, peer coaching, reading tutoring, and classroom social-emotional curricula (Dodge et al., 2015). The researchers indicated 69% of participants in the control groups displayed at least one externalizing, internalizing, or substance abuse psychiatric problem at age 25, in contrast to 59% of those assigned to intervention. The study provides evidence that early intervention reduces the frequency of adult mental health disorders among children with conduct problems.

**2.6.7 The Incredible Years® Program.** The program was developed by Webster-Stratton to help parents deal with children experiencing emotional and

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behavioural problems. Webster-Stratton (2015) used cognitive social learning theory and the coercion theory of negative reinforcement. The social learning model emphasizes the importance of the family as well as teacher socialization processes, especially those affecting young children. The Program endorses the philosophy that parents and teachers can learn to deal effectively with children's misbehaviour and to model positive and appropriate problem solving and discipline strategies, children can develop social competence, emotional regulation, and enhanced school readiness skills; they also can reduce aggressive behaviour at home and at school (Webster-Stratton, 2015). The program incorporates Bandura's (1977) modelling and self-efficacy theories, Piaget's (1964) developmental cognitive learning stages, cognitive strategies for managing anger and depression, as well as attachment theories.

The Incredible Years® Program is a training series composed of three empirically supported integrated programs for parents and caregivers, teachers, and children that are meant to promote prosocial behaviour while preventing or reducing conduct problems in children aged 3–12 years of age. There are four separate programs: for babies (0–1 years), toddlers (1–2 years), preschoolers (3–6 years), and school-aged children (6–12 years) (Fergusson, Horwood, & Stanley, 2013). The parent, teacher, and child training is based on principles of video modelling, observational and experiential learning, rehearsal and practice, individual goal setting, self-management, self-reflection, and cognitive self-control.

The parent, teacher, and child programs can be used individually or in combination. The program is split into short-term goals and long-term goals. Short-term

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goals include: (a) improved parent–child interactions, building positive relationships and attachment, improved parental functioning, less harsh and more nurturing parenting, and increased parental social support and problem solving; (b) improved teacher–student relationships, proactive classroom management skills, and strengthened teacher–parent partnerships; (c) prevention, reduction, and treatment of early onset conduct behaviours and emotional problems; and (d) promotion of child social competence, emotional regulation, positive attributions, and academic readiness (Menting, de Castro, & Matthys, 2013). The long-term goals are the prevention and/or reduction of EBD and improved academic achievement.

The parent series focuses on strengthening competencies and fostering involvement in children’s school experiences to promote academic, social, and emotional skills while reducing conduct problems. Parent groups meet in 12–20 weekly sessions of 2–3 hours that concentrate on parent–child interactions, nurturing relationships, reducing harsh discipline, and fostering parents’ abilities to promote children’s social, emotional, and language development (McGilloway et al., 2012). Parents are encouraged to learn to promote school readiness, and partner with their children’s teachers to practice social skills and self-regulation in an effort to reduce conduct problems. Teachers receive professional development from trained facilitators during a number of 1-day workshops that take place over approximately 6 months. Teachers are given regular support and encouragement to be reflective of their practice and develop strategies for reducing behaviours such as aggressiveness, whining, yelling, hitting, kicking, tantrums, and refusing to follow the rules, as well as being non-cooperative with teachers, parents, and

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peers (Pontoppidan, Klest, & Sandoy, 2016). Children participate in small group training or classrooms led by trained teachers or therapists and learn how to follow rules, cooperate, regulate emotions, problem-solve, cope with anger, and build peer relationships. Webster-Stratton (2015) suggested group aspects include: (a) setting personal goals, (b) role play practices, (c) self-reflection, (d) facilitator feedback, and (e) home or classroom activities.

Over the past three decades, the Incredible Years® Program has been evaluated in numerous meta-analyses and RCTs by the developer and other independent researchers (Brotman et al., 2005; Menting et al., 2013; Webster-Stratton, Reid, & Hammond, 2004; Webster-Stratton, Reid, & Stoolmiller, 2008). The Program has been shown to reduce the prevalence (occurrence, likelihood, frequency) of violence and crime in youth. In addition, the program has been shown to promote positive parenting and teaching focused on strengthening children's social and emotional competence and school readiness (Webster-Stratton, Rinaldi, & Reid, 2011).

Menting et al. (2013) completed a meta-analytic review of 50 studies of the Incredible Years® Program. Results showed that the program is an effective intervention in improving child behaviour in a diverse range of families. Webster-Stratton et al. (2004) studied families ( $n = 159$ ) of 4- to 8-year-old children with ODD who were randomly assigned to (a) parent training; (b) parent plus teacher training; (c) child training; (d) child plus teacher training, (e) parent, child, plus teacher training, or (f) a waiting list control. The authors reported that negative parenting decreased significantly post parent training, while positive parenting was significantly increased in all but two of



the experimental groups. The results demonstrated that children had fewer conduct problems at home, improved behaviour at school, and significant development of social competence. In immediate post-testing, 84.6% of the children improved on the Eyberg Child Behavior Inventory™ (ECBI™) intensity score, and 72% improved on the Dyadic Parent–Child Interaction System (DPICS–R) of child negative behaviour (Webster-Stratton et al., 2004).

Brotman et al. (2005) investigated the immediate impact of an 8-month Incredible Years prevention program for preschool children at high risk for conduct problems. The researchers reported program effects on observed and self-rated parenting practices and observed child behaviour with peers. Ninety-nine preschool-age siblings of adjudicated youths and their families were randomly assigned to an enhanced version of the Incredible Years® Series ( $n = 50$ ) or to a non-intervention control condition ( $n = 49$ ); (Brotman et al., 2005). The intervention demonstrated significant effects on decreasing negative parenting, and increasing parental stimulation for learning, and child social competence with peers.

Webster-Stratton et al. (2008) conducted a RCT of the Incredible Years® Program that involved a total of 153 teachers and 1,768 students enrolled in Head Start, kindergarten, or first-grade classrooms in schools selected because of high rates of poverty. The program curriculum was delivered by trained teachers to all children in bi-weekly lessons throughout the year. As part of the intervention, weekly homework was sent to parents to encourage involvement. Part of the curriculum involved promotion of lesson objectives through the teachers' continual use of positive classroom management

skills focused on building social competence and emotional self-regulation skills, as well as decreasing conduct problems (Webster-Stratton et al., 2008). Children and teachers were observed in their classrooms at the beginning and the end of the school year by observers who were not aware of the program. The findings suggested that teachers were utilizing positive classroom management strategies and their students showed greater social competence, emotional self-regulation, and fewer conduct problems. Webster-Stratton et al.'s (2008) study supports the efficacy of this universal preventive curriculum for enhancing school protective factors and reducing child and classroom risk factors.

### **2.7 Gender and Age Considerations**

There is a large research base in the study of EDB that indicates gender differences in prevalence rates of EBD among children (Giedd et al., 2015; Rosenfield & Mouzon, 2013; Zahn-Waxler, Shirtcliff, & Marceau, 2008). These documented gender differences in mental health among children with EBD have significant implications for the provision of school-based interventions. Stakeholders should be aware that males are significantly more likely to be identified in the screening process (Taylor, Smiley, & Richards, 2009).

Whether the identification of males is higher than that of females due to a greater likelihood that males experience more behavioral difficulties, or the possibility that the studied educational settings exacerbated the maladaptive behaviours of males, is not known (Malfitano, 2014). There has been some disagreement about the procedures for identifying children with EBD and whether there is a need to take gender into consideration in determining if students should receive supports and services. In a study

that examined a birth cohort of just under 1,000 New Zealand-born children, there was little data supporting developmental differences attributable to gender in students who had CD, ODD, or ADHD (Fergusson, Boden, & Horwood, 2010). These three disorders are certainly associated with aspects of social conflict.

Emotional behavioural problems have been found to be reflected in a gender-specific manner. Males tend to have externalized disorders (ADHD, conduct disorder, ODD) including antisocial habits and aggressive tendencies (Donner & Lowry, 2013; Merikangas & He, 2014). All of these authors suggested the frequency of internalized disorders is complex in respect to both genders, but research supports the notion that females typically exhibit disorders that are internalized, such as being anxious or depressed (e.g., shyness, withdrawal, hypersensitivity, physical complaints). However, internalizing problems can be debilitating, and children can have both types of problems, either exhibiting both externalizing and internalizing difficulties at the same time or alternating between the two. Both male and female children with emotional disturbance are described in a similar manner: internalizing behaviour may refer to shyness, anxiety, depression, and withdrawal, while children with externalized behaviour may be noncompliant, defiant, coercive, and aggressive (E. H. Rice & Yen, 2010).

These trends have important implications in education contexts considering the nature of males and females. Researchers and policy makers have queried whether males and females with EBD are properly identified and receive effective school services based on their gender. The Individuals with Disabilities Education Act Annual Report (2003) noted that 80% of students aged 6–12 participating in a longitudinal study who were

identified as EBD were male. Among those who were 13–17 years old, 77% were male (U.S. Department of Education, 2005). If male students tend to exhibit more externalized behaviours than female students, perhaps these behaviours are more visible in the classroom. Taking into account the ratio of males to females with EBD and the types of externalized and internalized behaviour problems, it was necessary to determine the identification of, and support provided to, these students with respect to gender (Taylor et al., 2009). In certain instances, the larger number of males who are classified and receiving services in special education may imply that females are hidden because they are not as prevalent in the numbers of special education students (Osler & Vincent, 2003).

Despite the relative lack of research in early elementary school-aged child psychopathology compared with studies of the epidemiology of psychiatric disorders in older children, the current evidence now demonstrates that the rates of EBD are similar to those seen in later childhood. Kauffman and Landrum (2009a) demonstrated 3%–6% of school-aged children show a pattern of consistent emotional behavioural difficulties long before they are formally identified in schools. According to the National Research Council (2002) and the U.S. Department of Education (2005), about 1% of students in public schools in the United States receive special education under the EBD category. Stakeholders should be alert to age-appropriate manifestations of EBD symptoms and signs when assessing preschool children and as students enter the elementary school environment. Keenan and Wakschlag (2002) found that a consensus on the conceptualization and measurement of such problems in young children is lacking

because the majority of the validation sample within the *DSM–5* consisted of school-aged children and adolescents.

At present, there is little empirical evidence supporting methods to assess EBD that document young children's level of risk based on etiologic and prevention factors (Webster-Stratton, 2015). Typical and atypical behaviour problems can be differentiated in preschool children using the *DSM–5* framework (with some modifications) to address children's developmental levels (Keenan & Wakschlag, 2002). The modification of existing assessment tools (e.g., direct behavioural observation, behavioural rating scales, behavioural interview, structured interview, semistructured interview, sociometric techniques, self-reports) should be completed to advance clinically sensitive methods for using observational data in assessment and for establishing young children's level of risk of developing EBD.

Attaining a developmentally sensitive nosology for young children with EBD requires classification of the qualities that distinguish EBD from the typical misbehaviour of children during this developmental period. Wakschlag et al. (2007) demonstrated the use of the Disruptive Behaviour Diagnostic Observation Schedule to examine whether: (a) observed quality and pervasiveness of behaviour distinguishes preschoolers with clinically concerning disruptive behaviour from typically developing preschoolers, and (b) observed pattern of clinically salient behaviour predicts impairment above and beyond maternal report of behavioural frequency. The authors opined that patterns of clinically salient behaviour show promise for advancing developmentally-informed characterization of disruptive behaviour within the preschool period.

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The variabilities attributable to gender and age require action within education, community, and medical settings that includes a variety of intervention strategies to accommodate the developmental level of children and needs applicable to gender. Given that females are less likely to be identified as needing further assessment or intervention, there may be a portion of young girls who are at risk but are not identified, possibly because their adaptive behaviours mask their problems and challenges (Taylor et al., 2009). Stakeholders must highlight the need to identify less noticeable or nonaggressive female behaviours as part of the early identification and screening process in an effort to understand and address gender differences. Research based on physiological and environmental components indicates that females may be under-identified for emotional disturbance and there is not much information in the field that explains developmental differences that may occur in students with emotional disturbance (Merikangas & He, 2014).

The literature review revealed a limited number of studies that highlighted females with EBD. In light of the limited information about females with emotional or behavioural disabilities, research completed in the format of semistructured interviews with professionals provides interesting examples about instruction based on gender (J. Rice, 2007). Despite the unique characteristics appearing in females, the notion that when gender is controlled, there is no direct correlation between gender and externalized symptoms; neither females nor males have a greater risk of developing externalized symptoms if both genders are equally communicative (Hoffmann, Powlishta, & White, 2004).

## **2.8 Multicultural Considerations**

It is imperative that educators acknowledge race and culture as significant factors in the assessment, treatment, and interventions applied to the psychological functioning of children with EBD. DelCarmen-Wiggins and Carter (2004) suggested race and culture dictate the whole way of life of a social group and include embedded practices as well as presentations that shape every aspect of life. Research supports the belief that non-White males, specifically students of African descent with EBD, experience more social conflict than White males with emotional disturbance, and are over-represented within special education classrooms (Forness, Freeman, Paparella, Kauffman, & Walker, 2012; Godinet, Li, & Berg, 2014). Ethnic-sensitive practice must be based in cross-cultural awareness in which cultural diversity, history, and contextual conditions are critical components in the development of school-based interventions. Consistent with the socioecological framework, schools should address the social environment and the broader culture and climate of EBD (Bradshaw & Waasdorp, 2009). Specific recommendations that can improve outcomes for African Nova Scotian male students include strengthening relations between teachers and students (especially when there are cultural differences), creating assessments that respect culture, collaborating with students' families, and placing an emphasis on mental health across the field of education (Serpell, Hayling, Stevenson, & Kern, 2009).

Given students' diverse cultural and racial cross-cultural experiences, stakeholders working with children with EBD need to be in touch with their cultural conditioning, learn how they view the world through their own particular filters, and

work toward inclusion rather than exclusion or conformity (Serpell et al., 2009). There is a need to examine the interplay of cultural diversity and gender issues regarding principles of hierarchy, domination, and power of one sex over another. Although the reasons for disproportionality have not been identified unambiguously by researchers, multicultural special education for children with EBD is considered essential (Kauffman & Hallahan, 2009). There is no question that cultural values have influenced social movements that have given rise to the evolution of positive school-based support programs for children with EBD. Those movements include deinstitutionalization and instructional reform (Scheerenberger, 1981), normalization (Blatt & Kaplan, 1974), client rights and protection (Stolz, 1977), educational movements such as mainstreaming (MacMillan & Borthwick, 1980), person-centered planning (Holburn, 1997), and many others. The implications of cultural difference are great with regard to EBD, as educators must be sensitive to varying cultural norms and situations children will encounter later in life (Kauffman & Landrum, 2009b).

### **2.9 Summary**

This chapter identified several national and international studies regarding EBD programming and models of support for school-aged children experiencing EBD. The importance of continued examination of medical, community, and school-based intervention strategies was highlighted. An overview of children's motivation and learning applied to dysfunctional emotions and behaviours was presented. Empirically supported therapeutic interventions (e.g., CBT, DBT, family therapy) were highlighted and examples of empirically supported interventions received by children with EBD were



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examined. Attention was paid to age, gender, motivation, and multicultural considerations as factors in the assessment and treatment of children with EBD.

My study adds to previous research on positive school-wide behaviour supports by Sugai and Horner (2006), Atkins et al. (2010), McIntosh et al. (2011), and Kutcher and McLuckie (2013), who provided evidence of strategies for working with children with EBD. Positive behavioural support interventions and integrated services were highlighted in contemporary studies, as well as the need to demonstrate more interest in the importance of schools as critical partners in treating EBD. My use of a broader systems approach that presented information in a multi-method format, data-based results, and reports by clinicians increases the likelihood that practitioners will understand EBD supports for children (Nock, 2010). The key contribution of this review is a confirmation of the need for support for mental illness of elementary aged children and further exploration of preventative measures to identify gaps in awareness and knowledge about identification and treatment of mental illness (Government of Nova Scotia, 2012b).

### **Chapter 3. The B.E.S.T. Program**

The purpose of this study was to examine the success of school-based clinical intervention in emotional and behaviourally disordered children attending eight B.E.S.T. elementary schools located in Northern Nova Scotia. This chapter contains a review of the purpose and foundation of the Behavioural Education and Training Support (B.E.S.T.) program, common disorders of students participating in the program, and the nature of the three levels of tiered interventions. A brief summary of the roles and responsibilities of stakeholders in the B.E.S.T. Program is presented at the end of the chapter.

#### **3.1 The Purpose of the B.E.S.T. Program**

The CCRSB Strategic Plan (1999) provided the context for the creation of the Behavioural Education and Training Support (B.E.S.T.) program in response to the need to reduce severe emotional and behavioural dysfunction of students in Grades Primary–6. In addition, in a 1999 provincial interdepartmental review titled “A New Step Forward: Improving Mental Health Services for Children in Nova Scotia” (Campbell, 1996) it was suggested there was a need for greater cooperation between agencies that work with children. In response, in 1999 a regional committee was established that included the CCRSB, mental health services, public health, addiction services, community services, and justice (Beck, 1999). The committee’s mandate included gathering regional data to determine the extent of problems associated with students who live with EBD, broaden research, and make recommendations regarding the preventative mental health needs of children. As a consequence of the Strategic Plan in the 1999 review, the B.E.S.T.

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Program was created in eight elementary schools within the CCRSB (M. Beck, 1999).

The program was not a provincial pilot and was unique to the CCRSB.

The mission of the B.E.S.T. Program was to identify and respond to children in Grades Primary–6 experiencing EBD through a school-based program that combined clinical intervention, classroom teaching methods, and school administrative protocols. The model can also be used with all students based on the tenet that each child entering school needs emotional and behavioural supports through primary to sixth grade. The B.E.S.T. model emphasizes operationally defined and valued outcomes that lead to the development of personal traits (e.g., health, self-esteem, physical wellbeing) that support achievement, confidence, and a desire to succeed. A hallmark of the B.E.S.T Program was an emphasis on the collection and analysis of school-wide data to identify and guide effective, efficient, and relevant decision-making practices. The objectives of B.E.S.T are:

1. to create a positive and supportive learning environment at school and home,
2. to enhance academic achievement for all students,
3. to assist schools with the development and implementation of prevention and intervention strategies related to the management of children's behaviours,
4. to help children get along with peers,
5. to enhance communication between home and school,

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6. to provide caregivers with assistance related to managing their child's behaviours,
7. to provide training and support to school staff related to behaviour management, and
8. to foster and promote interagency partnerships supporting children and their families (M. Beck, 1999).

A student-centered approach within B.E.S.T. schools enables practitioners to work collaboratively with stakeholders whereby they mutually agree on the focus, goals, directions, and pace of the intervention. Todd, Campbell, Meyer, and Horner (2008) noted that within school settings students, families, schools, and related agencies challenge, confront, and advocate on behalf of children to eradicate oppressive practices within education. Children with EBD have a right to an education in the least restrictive environment, opportunities in regular classrooms alongside their non-disabled peers, and access to appropriate levels of support. Gresham, Cook, Crews, and Kern (2004) suggested schools are unique because they are the one place that stakeholders and students spend a significant amount of time together in both structured and unstructured contexts, thereby creating numerous intervention-related opportunities.

### **3.2 The Foundations of B.E.S.T.**

The philosophical starting point in the B.E.S.T. Program is that there are two types of behaviours: appropriate and inappropriate. It is the responsibility of professionals working at the B.E.S.T. school sites to promote, recognize, and support appropriate child behaviours; and to prevent or remediate inappropriate behaviours. At

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the foundation of B.E.S.T. is the understanding that all children need positive role models and guides as they learn to behave appropriately and mature into self-disciplined members of society. The program has three fundamental assumptions: (a) change and learning in children is manifested by a change in observable behaviour, (b) the learning environment shapes the behaviour, and (c) continuity and reinforcement are important. The antecedent, behaviour, consequence model is based on the belief that behaviour can be changed by manipulating either the conditions preceding the behaviour (antecedents) or the consequences following the behaviour. Behaviour that is rewarded will occur more often and behaviour that is not will occur less frequently (Watson & Tharp, 2002). To change inappropriate behaviour, stakeholders can work to change the antecedents or the consequences.

The B.E.S.T. approach to school-based intervention provides collaborative opportunities for thorough and comprehensive analyses of children's attitudes towards academic learning and how they fit into their school environments. The target construct concerns enjoyment of school learning characterized by a high degree of task involvement, mastery orientation, curiosity, persistence, and the preference for challenging, difficult, or novel tasks. As children acquire formal operations they become motivated to use them (Inhelder & Piaget, 1958). The ability of a learner to self-regulate learning processes and to feel in control encourages task completion. The B.E.S.T. model is based on established behavioural and biomedical science that has three levels of care and asserts important values and principles including: (a) the centrality of the child and family in the education process, (b) the integration of the efforts of disparate agencies

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into a contextual approach, as well as (c) the importance of serving children and families in their homes, schools, and communities (Waschbusch & Willoughby, 1998). The program structure is composed of three levels of support: (a) a school-wide component, (b) individual student intervention, and (c) tertiary or family intervention.

McCullough (2003) highlighted the importance of stakeholders using cognitive and behavioural teaching practices that combine meta-cognitive skills-building strategies with contingency management systems. The goal is to improve cognitive, emotional, and behavioural functioning in relation to adaptability, and maximize student potential and quality of life. This practice is based in student empowerment and self-determination with guidance from teachers, clinicians, and parents. The school-wide intervention relies primarily on recognizing and rewarding children who consistently follow school rules. This includes a set of school-wide expectations or rules that are developed by the entire school body (including the teaching and support staff), a school-wide tracking system, and school-wide program modifications.

The team consists of the student services consultant, B.E.S.T. educator, school administration, family interventionist, educational assistant, school psychologist, and classroom and/or specialist teachers. Students are identified through the school-wide component. Consultation with the multi-disciplinary team brings all professional resources assigned to the school together to discuss strategies and options for children (M. Beck, 1999). The team works to develop an Individual Education Plan/Behaviour Intervention Record with alternate expectations for behaviour and social skills which is revised and assessed on an ongoing basis (see Appendix A).

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Individual student intervention is implemented by the behaviour educator with assistance from the educational assistant. For a student to receive individual intervention, classroom teachers must make a referral to the B.E.S.T. educator and a review must be conducted by the program planning team (M. Beck, 1999). Individual student support may include extra academic assistance, small group skills training in social skills or anger management provided by the B.E.S.T. staff, peer assistance, self-management interventions (e.g., self-monitoring, self-evaluation, self-instruction, goal setting, strategy instruction), a formal individual behaviour plan, involvement by the B.E.S.T. educator, or assistance with behaviour from an educational assistant within or outside of the classroom (Farley et al., 2012).

The ongoing tracking of individual student intervention is overseen by the B.E.S.T. educator and educational assistant. Observations, informal interviewing, and data tracking are the responsibility of all staff within all school settings (classroom, common areas, playground) and are used to evaluate the effectiveness of the interventions taking place on an individual basis (see Appendix B). Changes to individual student programming take place as necessary based upon ongoing tracking results in consultation with appropriate stakeholders. The family interventionist is involved with students in Tier 2, which involves a parenting education program and liaison with outside agencies. In Tier 3, children and families receive increased supports that include in-home coaching and skill-building activities in cooperation with the B.E.S.T. educator, school psychologist, and, at times, outside agencies such as community mental health professionals or pediatricians (Beck, 1999).

### **3.3 Disorders Common in Students Participating in B.E.S.T. Programming**

The B.E.S.T. model requires stakeholders to have a detailed understanding of mental disorders, experience in implementation of therapeutic strategies, and ongoing education and learning to alleviate skillset deficits. The B.E.S.T. program deals with children presenting with any mental or behavioural health concern in the school. The diagnoses of children receiving services under the umbrella of this program might include, but are not limited to, autism spectrum disorder, attention-deficit/hyperactivity disorder, depressive disorder, anxiety disorders, developmental disorders, conduct disorder, and oppositional defiant disorder. Problem behaviours associated with EBD can remain stable, become worse, improve, or develop into differential problems in childhood that have a tendency to continue into adolescence (Connell et al., 2008). There is no standardized test for EBD as there is for intelligence or academic achievement; EBD is a matter of judgment that a child's behaviour is acutely problematic and in need of change. Assessment of internal states through projective testing and other psychoanalytic means is not a reliable basis for identification of children with EBD (Kauffman & Landrum, 2009a). The typical diagnostic presentations of these disorders vary, and identifying them is an essential early step in implementing effective B.E.S.T. programming.

**3.3.1 Neurodevelopmental disorders: autistic disorder, attention-deficit/hyperactivity disorder, and developmental disorder.** Autism spectrum disorder (ASD) is a neurodevelopmental brain disorder that begins to present in childhood. It is an umbrella disorder with a wide variety of impairments that often



present differently in each diagnosis (Huerta, Bishop, Duncan, Hus, & Lord, 2012).

Children with ASD may find classroom and school environments difficult to navigate.

Common behavioural characteristics include anxiety, tension, non-cooperation,

distractibility, excessive caution, and avoidance (J. Freeman et al., 2013). In order to

meet the child's need for increased or decreased stimulation, a variety of sensory

experiences must be offered in the educational setting. Reynolds, Lane, and Gennings

(2010) found that once the right environment was established it was rewarding to see the

decrease in unwanted behaviours.

Attention-deficit/hyperactivity disorder (ADHD) is both a neurodevelopmental and developmental disorder requiring a clinical diagnosis based on specific criteria and affects approximately 3%–5% of children in Canada (Daily, Ardinger, & Holmes, 2000).

Research by Polanczyk et al. (2010) indicated that ADHD is caused by a deficiency of specific neurotransmitters in brain circuits. Depending on which areas are involved the child may be distracted, impulsive, hyperactive, or some combination of these

characteristics. The signs and symptoms that a child with ADHD presents often depend

on which characteristics predominate. Although clinicians typically reported that boys

are referred for ADHD assessment nine times more often than girls, studies using a

general population base indicated that the ratio of boys to girls with the disorder is closer

to 3:1 (Barkley, 2006; Corkum, McGonnell, & Schachar, 2010; Maskey et al., 2013).

Developmental disorders are a group of chronic psychiatric conditions that impair normal emotional, behavioural, or academic development. Developmental disorders may be attributable to physical or mental impairment, begin in childhood, are likely to

continue indefinitely, and result in functional limitations for self-care, receptive and expressive language, mobility, self-direction, capacity for independent living or economic self-sufficiency, and may significantly impair normal emotional, behavioural, and/or academic development (Friedman & Rapoport, 2015). Types of developmental disorders include learning disabilities, communication disorders, autism, ADHD, and developmental dyspraxia. Researchers suggested children with developmental disorders should be exposed in everyday educational settings to curriculum that helps them master specific daily living skills, communication, and social skills for interacting with peers, family, and others (Kalachnik, Hanzel, Sevenich, & Harder, 2002). Corkum et al. (2010) stressed a variety of psychotherapeutic strategies are needed for this population, as well as teaching and learning approaches that incorporate the varied needs of students and are guided by principles of affected pedagogy that are pro-social in nature. Effective treatment interventions include behaviour modification, positive behavioural reinforcement, parent training, CBT, DBT, and medication (Farley et al., 2012).

**3.3.2 Depression and anxiety disorders.** Depression is an internalizing mood disorder present in approximately 1% of preschoolers, 2% of school-aged children, and 5%–8% of adolescents; it has a 2:1 female to male pathology (Maughan, Collishaw, & Stringaris, 2013). It can affect a child's mood, thoughts, energy, motivation, self-esteem, and quality of life. Children with major depression commonly experience diminished interest and energy, and a reduced desire to do things such as attend school, perform routine daily activities, socialize, and attend to their general health (Chan, Zadeh, Jhang, & Mak, 2008). Other common symptoms include restlessness; irritability; changes in

appetite or eating patterns; changes in sleep patterns; increases in somatic complaints; feelings of worthlessness, hopelessness, pessimism, or guilt; suicidal ideation; persistent sadness; and anxiety (Fristad, Goldberg-Arnold, & Leffler, 2007). Depression in children can be chronic or recurrent, leading to substantial impairments in their abilities to take on daily responsibilities. Research from a number of sources indicated that 40%–90% of children and adolescents with depression have at least one other psychiatric disorder (Avenevoli, Swendsen, He, Burstein, & Merikangas, 2015; Cuijpers, Beekman, & Reynolds, 2012).

Anxiety disorders often cause elementary school-aged children to feel frightened, distressed, or uneasy for no specific reason and can impede daily activities or functioning. Southam-Gerow and Prinstein (2014) suggested children with anxiety disorders may be at risk for other mental health problems that include ADHD, conduct disorder, depression, and dysthymia. Effective treatment interventions include CBT, DBT, and family therapy (Farley et al., 2012). School-based interventions for children with anxiety disorders have been demonstrated to have positive effects on student academic and social performance, or at least maintain existing levels of performance (Masia-Warner et al., 2005; Masten & Monn, 2015; P. C. McCabe & Shaw, 2010). Intervening in schools is a promising treatment approach that provides opportunities largely unavailable to clinicians in other contexts; intervention in schools allows the incorporation of support from peers, teachers, and parents in a natural setting.

**3.3.3 Conduct and oppositional defiant disorders.** An increasing number of children are demonstrating conduct disorder (CD) and oppositional defiant disorder

(ODD), which are likely to contribute to the development of emotional and behavioural disorders leading to negative outcomes. ODD is a psychiatric condition characterized by two different sets of problems: aggressiveness and a tendency to bother or irritate others (Guerra, Graham, & Tolan, 2011). Both disorders can be defined by the persistent presence of negative, defiant, or rule-breaking behaviours that are disruptive to a child's social, academic, family, or personal functioning (5th ed.; *DSM-5*; American Psychiatric Association, 2013). The American Academy of Child and Adolescent Psychiatry suggested both disorders result in patterns of escalating problem behaviours leading to negative life consequences, including substance abuse and potential incarceration (Pliszka et al., 2007). Within the B.E.S.T. program, multi-dimensional programming for CD or ODD includes interactions between professionals and clients, effective communication, interconnected agency planning, and goal acquisition as priorities.

The evaluation of children with CD and ODD involves multiple assessment measures because any one measure will likely fail to capture the entirety of a clinical concern (Chorpita, Daleiden, et al., 2011). In addition, even within the same mode of assessment (behavioural rating forms) practitioners and researchers may use various instruments to better gauge the complexities of a given problem. The use of rating scales has become essential in the evaluation of externalizing disorders in youth (Achenbach & Rescorla, 2001). A number of empirically supported rating scales exist, such as the Connors Rating Scales that screen for ADHD, ODD, CD, as well as internalizing disorders; the Conduct Disorder Scale (CDS); Adjustment Scales for Children and Adolescents (ASCA); Social Skills Rating System (SSRS); and the Reynolds Adolescent

Adjustment Screening Inventory™ (RAASI™), all of which provide professionals with a number of developed screening tools appropriate for individuals aged 5–19 years (Deb, Dhaliwal, & Roy, 2008; Konold, Walthall, & Pianta, 2004; E. C. Miller, Li, & Kabell, 2015). The scales vary in length, construction, and timeframe, but all are designed to identify dysfunctional child and adolescent antisocial behaviour; anger control problems; emotional distress; self-esteem social inhibition issues; and problems with authority, peers, and confrontation (Tan, 2007). Not validated, but nonetheless useful for screening of ADHD and ODD features, is the Swanson, Nolan, and Pelham Questionnaire (SNAP-IV 26) rating scale. Clinicians, educators, and researchers need to consider the use of reliable and valid teacher-completed rating scales as standard practice for the diagnosis and treatment of conduct and ODDs (Southam-Gerow & Prinstein, 2014). Empirically supported interventions include behavioural parent training, anger management, CBT, DBT, time-out, and problem-solving training (Farley et al., 2012).

### **3.4 Levels of Intervention–The Three-Tier Level of Support System**

The B.E.S.T. Program takes into account many views of human functioning. Krueger and Glass (2013) and Kauffman (2015) demonstrated that psychodynamic, client-centered, cognitive, behaviourist, family therapy, Gestalt therapy, body-psychotherapies, object relations theories, psychoanalytic self-psychology, and transactional analysis approaches are all considered within a dynamic systems perspective. Each approach provides a partial intervention addressing emotion and/or behaviour and is strengthened when selectively incorporated with other aspects of the B.E.S.T. Program’s therapeutic approach. Waxmonsky et al. (2016) suggested

interventions used in integrative psychotherapy are based on developmental research and theories describing the self-protective defenses used when there are interruptions in normal development. An integrated approach for professionals working with children with EBD should include the fundamentals of psychology, child development, family relationships, sociology, ethical issues, and group dynamics (McIntosh et al., 2011).

The B.E.S.T. Program framework includes three levels or tiers of intervention: Tier 1 (universal), Tier 2 (individual/targeted), and Tier 3 (tertiary/individualized) supports. The strategies within Tier 1 are drawn from the large behaviour analytic literature research base documenting effective strategies for supporting pro-social and positive behaviour in children (Fishbein & Wasik, 1981; Kazdin, 2012; Mayer, 1995; McIntosh & Goodman, 2016). To match interventions to children's needs, a number of data sources are employed to establish which children would benefit from Tier 1–3 supports as well as to identify what universal or clinical strategies may be most effective.

**3.4.1 Tier 1: School-wide component.** Tier 1 is primary or universal, which is least intensive and is implemented with the entire student population. Universal support Tier 1 includes the skillful application of rules and consequences such as time outs, which are to be used for repeated non-compliance or destruction of property. Turnbull and Turnbull (2001) suggested the goal of universal support is to significantly reduce or eliminate as many problem behaviours and increase as many appropriate behaviours as possible for as many students as possible in the school. School-wide systems emphasize the development of a positive school climate; practical, well-defined physical spaces; and monitoring systems for students that will reduce the conditions that trigger disruptive

behaviour (Kelm et al., 2014). The core elements of Tier 1 are well-defined and explicitly taught behavioural expectations, a reward system for appropriate behaviour, clearly defined consequences for problem behaviour, differentiated instruction, data collection and use in decision making, as well as universal screening for behaviour support (Horner & Sugai, 2015). Examples of universal or Tier 1 preventive interventions include social-emotional lessons that are used in the classroom, behavioural expectations taught by teachers, counselors coming into the classroom to model strategies for responding to emotional and behavioural problems, and holding classroom meetings among students and teachers to discuss emotionally relevant issues related to bullying or equity (Jiménez-Barbero et al., 2016).

Each school site develops with staff, parents, and community stakeholders a set of universal expectations and hierarchal consequence systems for behaviours that involve respect, responsibility, and safety (see Appendix C). This system can be integrated into the statement of the rules, but to do so makes it more difficult to state the rules positively. School-wide rules apply from the time students enter the site until they have departed for the day (Durlak et al., 2011). Staff members who identify a rule infraction immediately inform the child and record the infraction on the Daily Tracking Sheet (see Appendix D). Rule infraction language varies by school site, but overall, common consistent language is used. Examples of hierarchy of consequences include nonverbal warning, verbal warning, loss of recess time, referral, call home, and parent conference. The implementation of a points or token system is common for Tier 1 support to positively reinforce children for appropriate interactions during the instructional day (e.g., task

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completion, acts of kindness, listening to instructions). The form of tokens can vary, such as free time, small toys, and games. Class-wide reinforcement systems might include free days or class parties (Caldarella, Williams, Hansen, & Wills, 2015).

At various times in the academic year the school staff and administration are expected to monitor program effectiveness through data collection (Positive Effective Behaviour Referrals are documented and sent to the administration office), in-class observation, review of clinical records (teacher behaviour tracking sheets, focus group participation, medical referrals, outside agency interventions), and parent and community feedback. Evidence indicates that administrative support in the implementation of Tier 1 supports is critical to the long-term success of school-wide behavioural programming and expectations (Austin, 2003). In- and out-of-school suspensions are issued by each school's administration in accordance with the CCRSB Student Code of Conduct based on the Education Act of Nova Scotia (Ministerial Education Act Regulations, 1995–1996). The following steps illustrate the process of Tier 1 implementation.

1. Establish commitment and get started.
2. Form the school's B.E.S.T. team.
3. Establish a data tracking system for students' behaviours.
4. Establish and teach positive behavioural expectations.
5. Design and implement a school-wide positive feedback system.
6. Design and implement a consequence system for behavioural infractions.
7. Establish a data-oriented decision-making process with administration, teachers, support, and clinical staff.



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School-wide rules are reviewed at each school site throughout the academic year. Rules are posted in each classroom, hallway, and common area so that children and staff are reminded of daily behavioural expectations. B.E.S.T. clinical staff help the school establish rules and introduce them to children in cooperation with classroom teachers. The use of periodic and direct instruction of behaviours, generous quantities of positive feedback, predictable consequences, the simple use of common language, and universal expectations provides a behaviour matrix framework that can be used by all staff to improve student behaviours (see Appendix E). Daily Positive Notes to caregivers and consistent communication regarding behaviours are important components for all students within each B.E.S.T. school. Consistent communication with parents or guardians through a daily note and examples of student work are sent home for parental review and returned to teachers with comments. Teachers are encouraged to incorporate these components of behavioural management systems into everyday routines in order to inform children of what behaviours are expected and accepted in the classroom. Finally, teachers incorporate a homework assignment sheet which is used as a daily communication tool between the school and home (Sutherland, McLeod, Conroy, & Cox, 2013).

Tier 1 is designed to emphasize a skill-building approach that strengthens children's repertoires of social skills, aligns universal staff practices, and reduces the number of students in need of more intensive psychological supports (Safran & Oswald, 2003). Within the primary prevention continuum, appropriate social skills and behaviours are mandated. Typically, 80% of the student population will find success at

this level of intervention (Sugai et al., 2002). On a day-to-day basis, all children have three chances to ensure their Daily Positive Note is sent home with them (see Appendix F). Students may receive an out-of-class time-out for more serious infractions.

Appendix G contains a summary of the three behaviours that necessitate a time-out.

Within the school-wide component, those students who have three or more behavioural infractions on 2 days in the week attend a Friday focus session. Focus group is a time out from fun activities (e.g., class-based games, outdoor time, presentations) to attend a problem-solving or skill-building session conducted by clinical staff to help each child identify a problem behaviour and develop a plan of action for the coming week.

The goal of the focus group is not to reprimand children, but rather to help them successfully plan alternative actions. Depending on the number of infractions, grade level, and reason for attending the session, the clinical staff may subdivide the children to target specific age groups or behaviours. For the school climate to be positive it is important that appropriate behaviour is recognized and rewarded to the same extent that inappropriate behaviour warrants a response. Within the school-wide model, staff members utilize a number of options for positive consequences including positive notes to home (see Appendix H), outstanding behaviour tickets for weekly draws (see Appendix I), weekly privileges (see Appendix J), or weekly fun activities (see Appendix K).

Behaviour principles of Tier 1 emphasize instruction in how to behave, support desirable behaviour, and involve other primarily positive interventions; however, although these are effective, sometimes nonviolent and appropriate punishment

procedures may be necessary (Barnes et al., 2014; Kauffman, Mostert, Trent, & Pullen, 2006; Kerr & Nelson, 2006; Landrum & Kauffman, 2006;). A behavioural approach to teaching children with EBD relies on applying consequences to change behaviour, although instruction, talking to children, and modifying environmental factors set the stage for minimizing misconduct. Modern successful programs are founded on techniques shown to be effective with individual children (e.g., CBT, DBT, family therapy) and adapted into a school-wide component (Kelm & McIntosh, 2012; Schonert-Reichl, Smith, Zaidman-Zait, & Hertzman, 2012).

**3.4.2 Tier 2: Targeted individual intervention.** In Tier 2, supports are more intensive for children and parents are encouraged to attend school intervention programming. Students receiving Tier 2 supports typically exhibit behaviour that is not dangerous to themselves or others, but disrupts their learning or the learning of their peers (C. M. Anderson & Borgmeier, 2010). If a school with a relatively large group of students receiving universal supports (Tier 1) continues to experience patterns of problem behaviours, then the school needs additional efficient and positive behaviour support components for responding to children's needs (Tier 2; Turnbull et al., 2002).

Approximately 5%–10% of students will at some point in their education participate in Tier 2 programming. Targeted interventions for these students include modification of procedures and increased supervision in non-classroom settings. Core elements of Tier 2 also include progress monitoring for at-risk children, a system for increasing structure, predictability, adult feedback, home/school communication, and use of data collection to inform programming decisions for support (Horner & Sugai, 2015).

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In a typical scenario, students are identified by classroom teachers or specialist teachers and a referral to the B.E.S.T. Program is submitted to the site-based team (see Appendix L). All B.E.S.T. clinical advisory meetings include members of the site-based team and each school's administration. Details surrounding discussions, issues, progress notes, as well as action plans are recorded at these meetings (see Appendix M). Once a need for Tier 2 intervention is identified by school staff, parents are contacted by B.E.S.T. educators, who then participate in school-based meetings to outline the program and offer support to families. Parents receive a B.E.S.T. parent information and permission form for individual student support (see Appendix N). The B.E.S.T. educator completes classroom and school-based student observations to gather baseline data (see Appendix O).

The second component of the B.E.S.T. Program is intended to be a means for dealing with students at risk of failure and those who require increased emotional and behavioural reinforcement. Solomon et al. (2012) suggested that for this group of children a common set of specialized interventions may be used individually or in small groups. The creation and maintenance of a school behaviour support plan by a program planning team that includes the children and their families is an important part of this level of programming (see Appendix P). With support provided by the individual support plan, those children at extreme risk for chronic or intensive behaviour problems must be supported in the home and in the community. Successful interventions must be comprehensive; initiated early; utilized over the long term; and involve parents, teachers, peers, and siblings (Gulchak & Lopes, 2007).

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Tier 2 interventions are deemed effective when data demonstrate measurable changes in behaviour plus improvements in a student's quality of life. Data is collected and recorded by the B.E.S.T. educator throughout the Tier 2 support period (see Appendix P). The B.E.S.T. team reviews the data and term progress notes for those students who were not meeting goals and for children who are ready for the gradual withdrawal of support services (see Appendix Q). This information is shared confidentially with the family student services consultant during a common site-based meeting three times per year. The team uses data to guide decisions regarding current interventions, increasing or decreasing the intensity of interventions, or making changes to interventions. For each child, there is a school-based intervention record and a record of contact with parents or caregivers that details efforts in programming that can include anger management, social skills, play group, check-in, classroom behaviour support, and homework club (see Appendix R).

Key to Tier 2 intervention is continuous monitoring of data sources, periodic reviews, and oversight by school-based administrative teams. A student who demonstrates, over time, a level of improvement will move back to the universal school-wide support structure (Tier 1). It is important to note that although behavioural function is considered when selecting Tier 2 supports, an FBA is not typically conducted prior to implementation. The rationale is that Tier 2 interventions should be implemented efficiently and conducting a FBA requires extensive time and resources. The FBA is typically reserved for the design of Tier 3 interventions. Students experiencing continued challenges maintain the Tier 2 programming or move on to Tier 3 tertiary supports.

**3.4.3 Tier 3: Tertiary Individualized programming.** Tier 3 is the most intensive level and involves home intervention, clinical therapy, school-wide behaviour modification techniques, and independent behavioural program plans. Tier 3 intervention is considered when students experience problem behaviours that are chronic, dangerous, highly disruptive, impact overall classroom learning, and/or result in social exclusion. In the event a school decides that third-level supports are necessary a support team of teachers, family, and other stakeholders who provide direct service is organized (Loman & Horner, 2014). Typically, the process follows a series of steps including definition of the problem behaviour(s), collection and analysis of data around the problem that could explain the function of the behaviour (e.g., to get attention, avoid an aversive social situation, express anger or frustration), identification of a theory regarding the function or motivation of the behaviour, and systematic testing of the theory by changing an aspect of the child's instruction or environment (Scott & Alter, 2017). Wraparound case management in Tier 3 includes individualized case management via team planning that is family-driven, culturally competent, and community based. The wraparound approach is defined as a team-based process for many systems to come together with the child and family or caregiver to create an integrated, highly individualized plan that includes the coordination of existing services and the development of new, possibly non-traditional, supports to address complex emotional and behavioural challenges that may last for many months or even years (VanDenBerg, Osher, & Lourie, 2009).

Tier 3 of the program is the most intensive individualized interventions, extensive expertise, and a significant amount of resources to implement. The supports are usually

tailored to meet the needs of the children demonstrating negative effects of EBD (Espelage et al., 2013). They typically address mental and behavioural health concerns, often by including the child's family (C. M. Anderson & Borgmeier, 2010). Tier 3 interventions usually are multicomponent, consisting of antecedent strategies to prevent problem behaviour, instructional strategies to teach desired behaviour, and consequence components to decrease problem behaviour and increase the occurrence of desired behaviour (C. M. Anderson & Scott, 2009). Supports at this level are typically comprised of a FBA designed to better understand the behaviour and the development of an individualized plan of intervention strategies. Approximately 2%–5% of a B.E.S.T. school's population will take part in the Tier 3 prevention programming (Sugai & Horner, 2009b).

Individual student support is the core intervention typically provided to these children and involves home intervention. Intervention includes individual and group counseling using a variety of therapeutic techniques that generally involve behaviour, cognitive behaviour, and solutions-focused methodologies (Gresham, 2015a). Parents are encouraged to attend a B.E.S.T. parent information and permission meeting for family support services (see Appendix S). A child's parents or caregivers and the site-based team cooperate to create a family intervention plan to provide intervention and support services specific to the child's needs and objectives as identified by the team (see Appendix T). Extensive research indicates that parent training is the single most effective intervention available for reducing early conduct problems (Kazdin, 2010; Singh et al., 2010; Webster-Stratton, Reid, & Beauchaine, 2011). Tier 3 interventions

support caregivers by providing presentations and in-home coaching on behaviour management, as well as facilitating coordination with medical or community support agencies. In May-June, a year-end summary of Tier 3 interventions is completed by educators and B.E.S.T. team members for each child (see Appendix U).

### **3.5 Roles and Responsibilities**

The successful implementation and maintenance of a B.E.S.T. Program requires the involvement of many different types of professionals both within and outside the school environment. As a large school board, the CCRSB has a central office located in Truro, Nova Scotia, that houses many senior-level employees who are tasked with overseeing the implementation of programming as well as logistical support to all B.E.S.T. schools. The B.E.S.T. program is organized to encourage site-based decision making, but is overseen through senior management at the Truro location. The effectiveness of interrelationships across B.E.S.T. members requires the willingness of teachers, therapists, administrators, and outside agencies to alter traditional beliefs and practices and negotiate new roles and functions for each stakeholder.

**3.5.1 Coordinator of student services.** It is the role of the coordinator of student services to provide centralized regional leadership for all aspects of the B.E.S.T. Program. Responsibilities include supervision and evaluation of the implementation processes and program planning at each school site. The coordinator works to promote and advocate support of the program within the school system and community. This is achieved through effective communication with the B.E.S.T. Advisory Group, consultants, principals, and B.E.S.T. teachers (M. Beck, 1999). It is a duty of the



coordinator to ensure the B.E.S.T. Program is implemented in a manner consistent with provincial and CCRSB policies, procedures, and guidelines. An annual report to the Nova Scotia Department of Education detailing the B.E.S.T. Program is prepared by the coordinator (M. Beck, 1999).

The coordinator develops ongoing professional development in consultation with consultants and B.E.S.T. educators. The individual has regular contact with consultants and meets on a regular basis with school-based B.E.S.T. teams to review overall program performance and individual student progress as needed. The coordinator provides limited input in Tier 1–2 student intervention but is available for insight upon request. The coordinator meets with each B.E.S.T. school-based team on a periodic basis to review Tier 3 students and program implementation, while providing guidance and possible needed resources.

**3.5.2 Student services consultant.** The consultant provides centralized leadership and support to school personnel involved in B.E.S.T. Program planning and service delivery for emotional and behavioural challenges students with the holder of this position coordinates within each of the four family of schools within the CCRSB and participates in the selection of B.E.S.T. schools (Beck, 1999). The consultant assists support staff in preparation for the implementation of B.E.S.T. protocols. It is critical that the consultant maintains effective communication with the coordinator of student services, each school principal, and the family of schools supervisor regarding the B.E.S.T. Program. In addition to recruiting, selecting, and training B.E.S.T. staff. The student services consultant serves as a member of the B.E.S.T. Program advisory group.

The consultant works regularly with each school-based B.E.S.T. team to provide universal Tier 1 supports and resources while taking an active role in the development of Tier 2–3 B.E.S.T. student behavioural plans, outside agency intervention, as well as specialized resources as needed.

**3.5.3 B.E.S.T. educator.** Identifying a person to coordinate implementation is critical to the success of the B.E.S.T. Program. The B.E.S.T. educator is responsible to each school site principal and works under the immediate direction of the student services consultant. The role of the B.E.S.T. educator involves (a) ensuring decision rules are used for interventions, (b) training staff, (c) making sure needed resources are available, (d) meeting with teachers and parents, (e) problem solving, (f) tracking Tier 2–3 students' progress data, and (g) providing updates of progress to the B.E.S.T. team (M. Beck, 1999). It is the role of B.E.S.T. educators to work within an interagency program to provide early, intensive, school-based support for children who are at risk of developing emotional and behavioural difficulties. The B.E.S.T. educators are professional teachers, registered psychologists, or professional counselors licensed by applicable provincial governing agencies. In Nova Scotia, mental health professionals working within schools are granted a special teaching license in order to practice within the public school system. The B.E.S.T. educator is responsible for Tier 1–3 programming and direct therapeutic interventions that include school-based teacher support, individual and/or group interventions, advocacy, and acting as the community resource liaison (e.g., for referrals to outside agency care). Specific interventions include targeting areas such as maladaptive behaviour, social skills, self-esteem, academic support, coping skills,

motivational support, as well as resiliency training in classrooms, transition areas, playgrounds, and home environments (Beck, 1999).

Within this framework, it is recognized that integration of therapeutic methods is a process to which B.E.S.T. educators must be committed. Professionals within the B.E.S.T. Program have an obligation to build interrelationships across the B.E.S.T. team, to dialogue with colleagues of diverse orientations, and to remain informed of developments in the field.

**3.5.4 B.E.S.T. principals of school site.** Each B.E.S.T. school principal and administrative team works within the model of the program to provide early, intensive school intervention for children with EBD. The principal takes a leadership role in the development and implementation of universal Tier 1 programming as well as resource support for both B.E.S.T. staff and classroom teachers. The administration (a) collaborates with multiple professional staff members, (b) chairs school–family meetings, (c) meets with interrelated outside agencies, (d) updates provincial records, and (e) evaluates employees on a regular basis (M. Beck, 1999). The school administration plays a central role in all aspects of Tier 1–3 organization, support, and evaluation of B.E.S.T. Program objectives within the school. School principals and administration meet regularly with B.E.S.T. staff members to review individual student program plans and resource allocations, and to problem-solve potential issues. Key to the position of B.E.S.T. principals is their role as liaison with the program consultant and coordinator to articulate programming issues as they arise.

**3.5.5 B.E.S.T. family interventionist.** The child and family B.E.S.T. Program interventionist is school-based and under the direction of the student services consultant. The interventionist provides support for children, parents, and guardians within the home. If such efforts are to succeed, intervention provided to young children typically involves the children's caregivers, because early relationships provide a continuing context for psychological development (Luby, 2009). These interventions are designed in consultation with each school and address issues such as (a) parenting skills, (b) family communication, (c) parent-school communication on behalf of the child, (d) community resource utilization, (e) stress management, (f) problem solving, (g) family nutrition, and (h) self-care (M. Beck, 1999). The family interventionist plays an active role in Tier 1 implementation of universal supports within the school, but the majority of the interventionist's time and resources are directed towards Tier 2–3 students within the program. The interventionist meets regularly with B.E.S.T. team staff and administrators to communicate student and family progress and address complications or resource needs in a timely manner.

**3.5.6 Educational assistant.** The educational assistant is school-based and is responsible for academic and behavioural support as well as the safety of students involved in the program. The assistant works in collaboration with participating school principals and under the direction of the B.E.S.T. educator. The position is a leadership role in the implementation of Tier 1 universal supports, but the majority of time is devoted to providing Tier 2–3 classroom and school-based behavioural supports directly to individual students. The assistant works daily to address planning and evaluation

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ensuring collaboration of B.E.S.T. team members with school and community agency staff by using a team approach for intervention with participating children (Beck, 1999). Individuals holding this position actively develop and maintain positive liaison linkages with the partnering agencies to ensure coordinated care while avoiding unnecessary duplication of services.

**3.5.7 School psychologist.** The school psychologist at each B.E.S.T. school site provides psychoeducational services and support to children with EBD in the areas of assessment, intervention, and program planning. Participation in each school site's program planning and site-based team is mandatory for school psychologists. This individual specializes in helping school personnel develop and access behavioural plans. The specialist works with classroom teachers by providing students with a variety of direct and indirect services such as individual or group counseling, as well as skills training and in-class coaching (Beck, 1999). The individual meets regularly with the B.E.S.T. educator, assistant, and administration to review individual student progress and revise program plans as needed. Maintaining accurate records as per normal protocols for psychologists is expected. The psychologist is involved with Tier 1 universal supports but due to limited time and resources spends the bulk of assigned time with Tier 3 students as needed.

**3.5.8 Classroom and specialist teachers.** It is the role of the classroom and specialist teachers within B.E.S.T. school sites to work within the framework of the program while providing early, intensive school support for children with EBD. Each classroom teacher is responsible for the implementation of Tier 1 universal supports in

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the school environment. School-based specialist teachers are expected to maintain the same level of universal supports. For some specialist teachers, interaction with children in Tier 2–3 of the program may be limited due to assignments and teaching responsibilities (e.g., literacy specialist, math mentors). Critical to the role is the teacher's promotion of positive attitudes among students and staff to encourage acceptance and inclusion of EBD children in the regular classroom setting. As part of Tier 2–3 program implementation, the classroom teacher works to implement the behavioural plan, including the school-wide component; assists in specialist assessments; and helps to implement classroom strategies while acting as a liaison with administration and parents. Classroom teachers are expected to make efforts to communicate with families at all times (M. Beck, 1999).

**3.5.9 B.E.S.T. steering committee and budget.** The B.E.S.T. Steering Committee has limited involvement with the day-to-day operations of each school site. At times, members may visit schools to review issues, attend universal support celebrations, and consult with B.E.S.T. team members if required. The committee has no access to student identities and/or clinical documentation. All board employees including administrators, behaviour support educators, psychologists, educational assistants, and classroom specialist teachers are paid from normal provincial budget (Beck, 1999). Partner agencies such as mental health, family doctors, and Child Protective Services who offer support to B.E.S.T. programming as needed are paid by their own agencies. At various times during behavioural programming the staff, administration, and parents are expected to assess the program's effectiveness through data collection, observation,

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review of any pertinent records, and parent feedback. An analysis of contextual issues with reference to the climate parents experienced while working to help their children benefits every school. The CCRSB acts as the host agency and has day-to-day responsibility for running the program in eight schools. The professionals at all eight B.E.S.T. school sites are expected to conduct an annual comprehensive evaluation of program implementation as well as student, staff, and parent satisfaction.

## **Chapter 4. Methods**

The B.E.S.T. Program is modelled as a school-wide approach to address dysfunctional emotional and behavioural challenges of early elementary aged children. The purpose of this study was to investigate the influence of B.E.S.T programming on student behaviours before and following clinical intervention during 2009–2012 in Grades Primary–6 within eight elementary schools located in Northern Nova Scotia, Canada. The study seeks to close an existing gap in Nova Scotian, Canadian, and international empirical research on school-based mental health programming for early elementary children. In this study, student behaviour was measured by daily classroom tracking as well as caregiver and teacher surveys.

### **4.1 Approach**

This study can be characterized as exploratory in nature and draws upon historical quantitative data collection methods (behavioural tracking, assessment questionnaire, rating scales). The data were stored in a secure electronic database maintained by the CCRSB. The information was collected daily through tracking of student behaviours and entered into the database by staff. Clinical and professional staff collected rating scales and survey results from September 2009–June 2012. Access to the data was gained with the permission of the CCRSB. B.E.S.T. student participants and their caregivers had previously consented to the programming, information collection, and possible use in research (if granted) by the CCRSB Director of Education after ethics approval. The participant group included 380 students: 143 children in 2009–2010, 119 children in 2010–2011, and 118 children in 2011–2012. The control group included 375 students:



125 different children per year randomly selected from the Tier 1 group who warranted no clinical attention. The Tier 1 group was composed of students randomly selected from the eight B.E.S.T. school sites. This group of students did not receive any individual or group intervention from the B.E.S.T. clinicians but did participate in school-wide Tier 1 B.E.S.T. programming such as behavioural tracking, positive reinforcement, class-based teaching and learning activities, and consistent communication with parents and guardians regarding overall social and emotional learning.

### **4.2 Metrics**

The B.E.S.T Program staff tracked data on school infractions, lost positive notes, and focus session attendance in each of the eight B.E.S.T. school sites. The data for each of these three indicators of behaviour change were collected and analyzed for the 2 weeks of school prior to students entering the B.E.S.T. Program and then for the duration of the time students were in the program. It was hypothesized that decreases in the rate of infractions, lost positive notes, and focus session attendance are indicators of program effectiveness. A strength of this approach was that the precise numerical data came from a large sample of children. These data were used to analyze participants' pre- and post-intervention behavioural outcomes.

Data collection that involved parents and professionals (clinicians, teachers, administrators) working in the B.E.S.T. Program consisted of rating student behaviour prior to entry into the program and then again at the end of the program. In addition, parents and professionals provided feedback about their satisfaction with a number of dimensions of the B.E.S.T. Program using a prepared rating scale. The indicators of

program effectiveness were built on early research led by Waschbusch and Willoughby (1998). My study was designed to examine further professional staff and caregivers' insights into the success of behavioural intervention through the analysis of historical rating scale data collected by the CCRSB from 2009–2012. The Nova Scotia Department of Education and Early Childhood Development (2009–2011) provided secondary data in the *Student Enrollment by Board and Schools Reports*. The study was not designed to account for demographic risks such as ethnic and cultural backgrounds, family composition status, income levels, community location, language deficits, substance abuse, or pre-disposition to mental illness.

### **4.3 Context of the Study**

The CCRSB comprises 17 board members and over 3,000 staff members. The large board encompasses 77 schools in central and Northern Nova Scotia, stretching from the New Brunswick border to the Antigonish County line, and from the Northumberland Strait to the Halifax Regional Municipality. The CCRSB serves four areas in central and Northern Nova Scotia, collectively named Families of Schools. The Celtic Family encompasses schools in Pictou County, of which there are 14 elementary, six middle or junior, and three high schools. The Chignecto Family is comprised of schools in Cumberland County, of which there are 16 elementary schools, one junior high school, and seven high schools. The Cobequid Family encompasses schools in Colchester County, in which there are 16 elementary schools, four middle or junior high schools, and two high schools. The Nova Family comprises schools in the Municipality of East Hants, in which there are 14 elementary schools, one middle school, and three high schools.

During September 2009–June 2012 the B.E.S.T. Program operated in a total of eight elementary schools, two in each of the CCRSB's four Families of Schools (Nova, Cobequid, Chignecto, Pictou). Each school site is unique with regard to the number of students, rural or urban locations, staffing profile, and school-based resources.

### **4.4 Research Questions**

This study was designed to address a lack of research on school-based programs for elementary school children with EBD in Nova Scotia, Canada, and internationally. Reviews of the epidemiology associated with emotional and behavioural disorders in children have concentrated on autism, ADHD, oppositional defiant and conduct disorders, anxiety disorders, and depressive disorder. A review of the extant literature reveals a lack of studies examining psychiatric symptoms in this age group, as well as a lack of replicated findings (Ontario Public Services Employees Union [OPESU], 2005; Western Canada Waiting List Project, 2001).

The impact of successful intervention warrants investigation due to the increasing number of elementary aged children demonstrating maladaptive tendencies that are likely to contribute to negative mental health disorders. The questions to be evaluated were:

1. Do children with EBD who receive Tier 2 and 3 clinical interventions demonstrate a decrease in school-based emotional and behavioural problems after participation in B.E.S.T. compared to pre-intervention?
2. Do clinical staff, teachers, and parents report a decrease in conduct problems in children with EBD after clinical intervention?

3. Is the B.E.S.T. program more effective for boys versus girls enrolled in the program?
4. Is the B.E.S.T. program more likely to have positive outcomes for children if implemented at specific grade levels or age groups?
5. What interventions or strategies are being most utilized and least utilized?

#### **4.5 Hypotheses**

- H1.** Children with emotional behavioural disorders (EBD) participating in the B.E.S.T. Program will demonstrate a decrease in conduct problems (severity and problem) after clinical intervention as compared to pre-intervention data.
- H2.** Clinical staff, teachers, and parents will report an increase in positive behavioural outcomes after clinical intervention as compared to pre-intervention data.
- H3.** Age, gender, and comprehensiveness of intervention will have an impact on improvement in measured outcomes.

#### **4.6 Types of Outcome Measures**

The primary outcome measure was the post-intervention level or rate of student dysfunctional behaviours within school settings indicated by quantitative changes on daily tracking sheets. The secondary outcome measure was the nature of staff and caregiver feedback on surveys. Chi-square tests of association for each of the outcome measures were performed and their associated  $p$  values were reported. The significance threshold was set at  $p < .05$ . Trends in behavioural statistics from 2009–2012 are presented. Effective interventions were charted by year for each Family of Schools to

analyze program components. Comments are made about which types of interventions are most strongly associated with change rates in the data collected. A comparison of the eight school staffing profiles is analyzed for strengths and challenges. Pre- and post-intervention data were measured using the Student Behaviour Rating Scales including the Eyberg Child Behaviour Inventory™ (ECBI™) for Parents and the Sutter-Eyberg Student Behaviour Inventory–Revised™ (SESBI–R™) for Teachers, both of which were used with permission (S. M. Eyberg, personal communication, July 26, 2014), as well as the B.E.S.T. Parent/Caregiver Satisfaction Survey, and the Teacher Satisfaction Survey. The ECBI™ shows good psychometric properties (Axberg, Johansson Hanse, & Broberg, 2008), demonstrating stability in scores over time for children and adolescents (Eyberg & Robinson, 1983). The ECBI™ for Parents is not a diagnostic tool, but is a treatment outcomes study rating scale that is widely used to assess both the frequency of child disruptive behaviours and the extent to which the child’s behaviours are troublesome (Bor & Sanders, 2004; Eyberg & Pincus, 1999; Querido & Eyberg, 2003; Sofronoff, Leslie, & Brown, 2004). The ECBI™ Intensity and Problem Scales demonstrate high internal consistency, significant test-retest reliability, and significant iterate reliability, as well as convergent and discriminant validity (Eyberg & Pincus, 1999; Querido & Eyberg, 2003; Rhee & Rhee, 2015). A PsychoInfo search revealed that these scales were utilized in 94 published studies and are often used in conjunction with the SESBI–R™. The scales have been well tested, widely used, and with only 36 items are brief and easy to administer, complete, and score to detect changes in behaviour due to treatment (Achenbach & Rescorla, 2001; Bor & Sanders, 2004). No studies exist that have shown

the criterion validity for these measures. Otherwise, the ECBI™ is psychometrically sound, having been well studied in diverse child populations (Sofronoff et al., 2004).

The SESBI-R™ for Teachers is a report measure used to assess conduct problems in children ages 2–16 and contains 38 items that are rated on both intensity and problem scales. Teachers are able to use the SESBI-R™ to indicate the frequency and severity of behavioural issues and indicate if they find them dysfunctional. Collett, Ohan, and Myers (2003) stated the SESBI-R™ is used in conjunction with the ECBI™ by many clinicians. The SESBI-R™ Intensity and Problem Scales demonstrated high internal consistency of 0.96–0.98 (Burns & Owen, 1990) and significant test-retest reliability of 0.87–0.90 (Funderburk & Eyberg, 1989; Funderburk, Eyberg, Rich, & Behar, 2003), as well as convergent, discriminant, and predictive validity (Bagner, Boggs, & Eyberg, 2010; Burns & Patterson, 2001; Dumas, 1992; Eyberg & Pincus, 1999). A PsychInfo literature search revealed that SESBI-R™ has been referenced in 65 peer-reviewed journal articles and has been found to correlate with other teacher-rated measures of disruptive behaviour (Funderburk et al., 2003; Jacobs et al., 2000; Querido & Eyberg, 2003). Each scale has a subscale for severity of the disruptive behaviour and for the degree of the problems it causes the respondent. The study evaluated long-term determinants of clinical intervention and systems supports needed to build fluency with new or revised practices among teachers and clinical staff.

### **4.7 Project Complexity**

The B.E.S.T. Program is complex and involves interagency collaboration and multiple stakeholder organizations. Stakeholders participating in B.E.S.T. included

various school board employees, four Families of Schools and support staff, four health authorities and mental health clinicians, as well as many service providers and community support groups. This study provides stakeholders with information about how well the B.E.S.T. Program is addressing emotional and behavioural dysfunction to date; this includes interventions and aspects of the program that were used (in-class coaching, group counseling, individual counseling, behaviour plans, check-ins, mini-focus, formal assessment, parent training, skills training).

### **4.8 Data Gaps**

The identification and prioritization of research gaps in this study have the potential to lead to future research to address those gaps. Addressing data gaps is one of the most important factors in prevention and support strategies within school-based emotional behavioural support programs (Flaspohler, Meehan, Maras, & Keller, 2012). Programming for children with EBDs is outcome-based and can only be measured by data; any flaw within data collection or analysis will under- or over-estimate the outcomes (e.g., bias, incorrect sampling technique, inconsistent data, small participant group, emerging issues not tracked, demographic or geographic population not addressed). Therefore, it is imperative to understand the available data and identify any gap in supports or resource allocation to guide decision making concerning which intervention a child should receive and the evaluation of student progress.

### **4.9 Study Deliverables**

Stakeholders at the CCRSB will be included when the study results are disseminated. The research results will provide stakeholders with an analysis of how

well the B.E.S.T. Program has been addressing EBD during the time period analyzed.

Distributed information will include data gathering, analysis, and findings with respect to the formative (process) and summative (impact) aspects of the B.E.S.T. Program.

Recommendations to improve B.E.S.T. programming at the school and regional levels will be shared with the CCRSB.

### **4.10 Comparison Group**

In order to determine accurately the degree of change that might occur in the participant population as a result of school-based intervention (rather than population maturation), it was important to include a comparison group in the study. Taking into account the scope and objectives of this study the appropriate inclusion of a control group was based on the principle of justice (Avard, Samuël, Black, Griener, & Knoppers, 2011). It is unethical to deny access to the program, on the grounds of scientific rigor, to a child who may benefit. All data were controlled by the CCRSB, including variations in individual teacher or school reporting of Tier 2 and 3 children, ethical concerns raised by clinicians, and timely access to electronic data. A control group that equalled in number the Tier 2 and 3 students participating in B.E.S.T. was sought to increase the precision and statistical power of the study. Based on the research of L. Cohen, Manion, and Morrison (2013), a sample size of 125 random, Tier 1 students per year was selected. The same ethical considerations with regard to the comparison group were implemented and monitored for the duration of the study. Inclusion of the control group allowed for comparisons of children participating in the B.E.S.T. intervention and those who attended school at a site with only Tier 1 supports.



#### **4.11 Risks**

Student data collection took place between 2009–2012 at each school site. Staff members tallied daily behavioural infractions and uploaded the information to a central database. I was granted access to the CCRSB B.E.S.T. schools data as well as the collated results of both the parent and teacher satisfaction surveys. Statistical analyses of the data included the number of students participating in various components of the program, a breakdown of population and services percentages, and a collation of overall survey results by simple arithmetic. The data collected included the number of students participating in the program by gender, level of risk, and grade level. This included a review of the data to highlight trends in the number of students participating within the regional context of the CCRSB.

Important to the study was the review of the types of interventions students were receiving both in numbers and percentages at the regional levels, to help guide professional development to sustain empirically supported practice. The data afforded me an opportunity to review in detail school rule infractions at the eight schools and use the percentile data to draw conclusions and make recommendations based on observations. The use of control group data was significant in that it allowed me to use results to identify and perform analysis of regional trends.

The ECBI™ Parent Behaviour Rating Scale–Severity and –Problem was collected by the CCRSB over the 3-year period and provided to me to facilitate review of regional trends as well as make recommendations for program growth. The collection of rating scales from parents/guardians and teachers allowed for the inclusion of important data to

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measure stakeholder satisfaction through statistical analyses to evaluate individual components that can be adapted to improve program results. The SESBI-R™ Teacher Behaviour Rating Scale–Severity and –Problem data facilitated a detailed analysis of teachers’ insights into the program and changes that may be necessary to improve student results. I worked under the supervision of three Memorial University of Newfoundland faculty members with extensive experience collecting sensitive data. Upon review, the Memorial University of Newfoundland’s ethics committee decided there was no need to notify students’ parents and caregivers for ethical approval because parents and caregivers had already given permission to the school board to utilize findings in future research.

## Chapter 5. Results

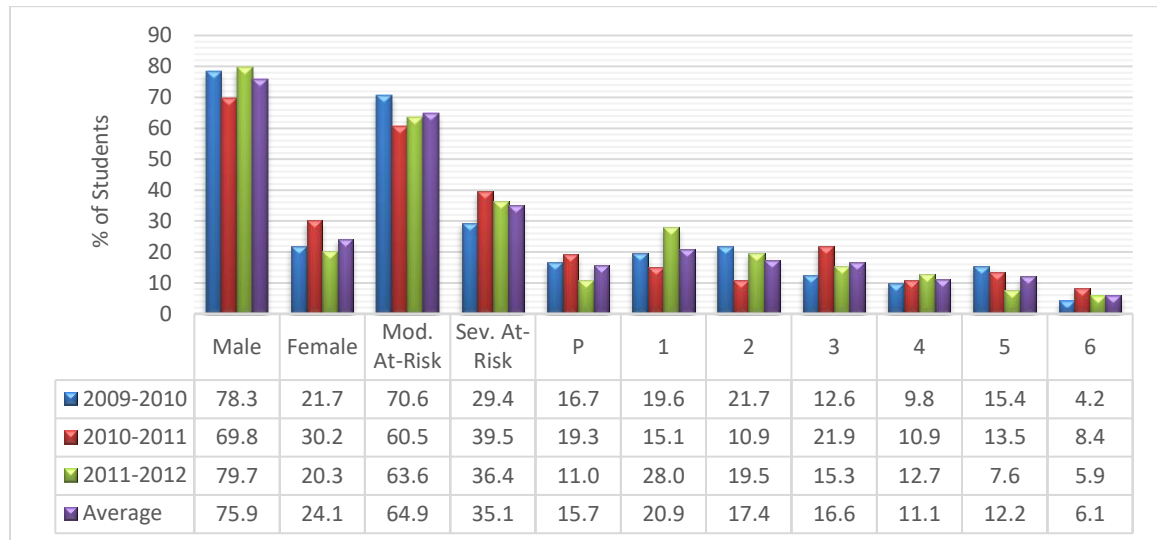
This chapter contains a summary of the findings on the effectiveness of the B.E.S.T. Program for 2009–2012. The focus is on the post-intervention level or rate of student dysfunctional behaviours within school settings measured by (a) quantitative scores on daily tracking sheets, (b) the nature of staff and caregiver feedback provided by surveys, as well as (c) rating-scale data gathered post-intervention in the participant group.

### 5.1 2009–2012 Profiles of Students Accepted/Participated in the B.E.S.T. Program

During 2009–2010, 143 children were referred and accepted for B.E.S.T. services. As shown in Figures 1–2, 78.3% ( $n = 112$ ) of the 143 were male students and 21.7% ( $n = 31$ ) were female. In 2010–2011, 119 students participated in B.E.S.T. services, 69.8% ( $n = 83$ ) of the participants were male and 30.2% ( $n = 36$ ) were female. In 2011–2012, 118 students participated in B.E.S.T. services, 79.7% ( $n = 94$ ) were male and 20.3% ( $n = 24$ ) were female. During 2009–2012, an annual average of 96.3 (75.9%) of participants were male and 30.3 (24.1%) were female. In the 3 years, a total of 76.1% ( $n = 289$ ) of participants were male and 23.9% ( $n = 91$ ) were female. Chi-square tests of association between male and female participants was completed, and analysis revealed a  $p$  value of .00001. The result demonstrates a highly significant relationship between gender and participation in the B.E.S.T. program ( $p < .05$ ). The difference between male and female participation provided overwhelming evidence that was likely too great to be attributed to chance. The findings presented in Figures 1–2 demonstrate consistency with gender results found in both international and Canadian research studies in which males

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represented 80% of children within school-based emotional behavioural programs, while 20% of participants were female (Dworet & Maich, 2007; Giedd et al., 2015; National Advisory Mental Health Council Work Group, 2001; Price & Lear, 2008; Taylor et al., 2009; U.S. Department of Education, 2005).



*Figure 1.* 2009–2012 percentage of B.E.S.T. student participation by enrollment, gender, risk level, and grade level. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

In 2009–2012, 380 students participated in the B.E.S.T. Program; 70.6% ( $n = 268$ ) were enrolled in Grades Primary–3, while 29.4% ( $n = 112$ ) were in Grades 4–6 (based on data presented in Figure 2). The Figure shows that in 2009–2010, 16.8% ( $n = 24$ ) of the 143 children were in Grade Primary, 19.6% ( $n = 28$ ) were in Grade 1, 21.7% ( $n = 31$ ) in Grade 2, 12.6% ( $n = 18$ ) in Grade 3, 9.8% ( $n = 14$ ) in Grade 4, 15.4% ( $n = 22$ ) in Grade 5, and 4.2% ( $n = 6$ ) in Grade 6. In 2010–2011, 19.3% ( $n = 23$ ) of the 119 students were in Grade Primary, 15.1% ( $n = 18$ ) in Grade 1, 10.9% ( $n = 13$ ) in Grade 2, 21.9% ( $n = 26$ ) in Grade 3, 10.9% ( $n = 13$ ) in Grade 4, 13.5% ( $n = 16$ ) in Grade 5, and 8.4% ( $n = 10$ ) in Grade 6. In 2011–2012, 11.0% ( $n = 13$ ) of the 119 students were in Grade Primary, 28.0% ( $n = 34$ ) in Grade 1, 19.5% ( $n = 24$ ) in Grade 2, 15.3% ( $n = 19$ ) in Grade 3, 12.7% ( $n = 16$ ) in Grade 4, 7.6% ( $n = 9$ ) in Grade 5, and 5.9% ( $n = 7$ ) in Grade 6.

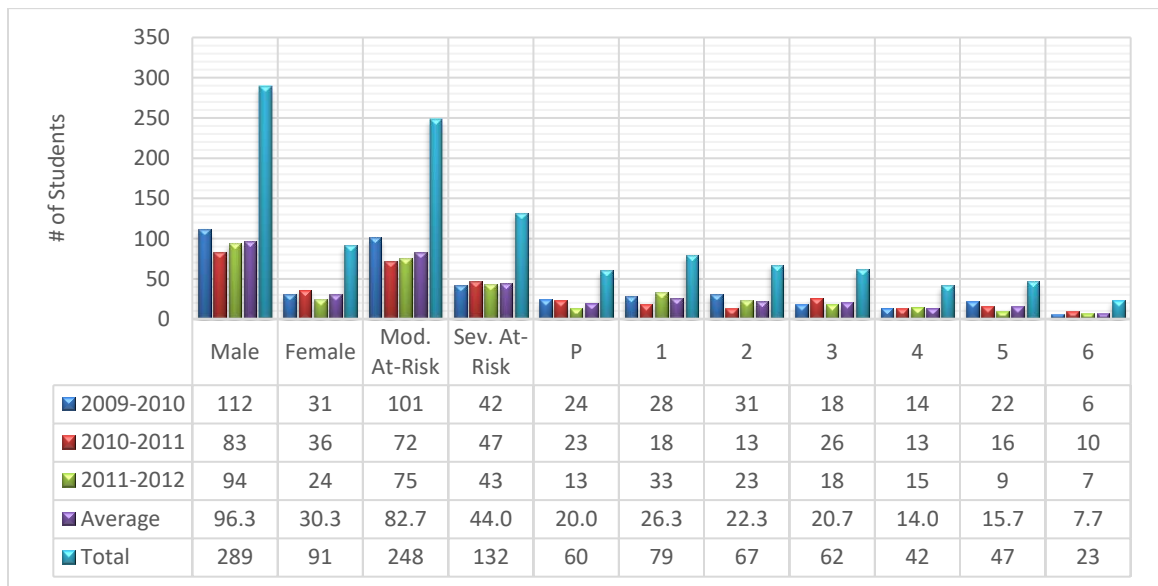
## Emotional Behavioural Supports for Children

= 26) in Grade 3, 10.9% ( $n = 13$ ) in Grade 4, 13.5% ( $n = 16$ ) in Grade 5, and 8.4% ( $n = 10$ ) in Grade 6. During 2011–2012, 11.0% ( $n = 13$ ) of the 118 students were in Grade Primary, 28% ( $n = 33$ ) in Grade 1, 19.5% ( $n = 23$ ) in Grade 2, 15.3% ( $n = 18$ ) in Grade 3, 12.7% ( $n = 15$ ) in Grade 4, 7.6% ( $n = 9$ ) in Grade 5, and 5.9% ( $n = 7$ ) in Grade 6. In the 3 years, an annual average of 15.7% ( $n = 20.0$ ) of all Grade Primary students were B.E.S.T. participants, 20.9% ( $n = 26.3$ ) in Grade 1, 17.4% ( $n = 22.3$ ) in Grade 2, 16.6% ( $n = 20.7$ ) in Grade 3, 11.1% ( $n = 14.0$ ) in Grade 4, 12.1% ( $n = 15.7$ ) in Grade 5, and 6.1% ( $n = 7.7$ ) in Grade 6. During 2009–2012, a total of 60 students were in Grade Primary, 79 in Grade 1, 67 in Grade 2, 62 in Grade 3, 42 in Grade 4, 47 in Grade 5, and 23 in Grade 6, for a total  $n = 380$  (Figure 2). There is no data to analyze the contextual factors contributing to some lower enrollments in 2010–2012. Chi-square tests of association in grade level of participants was completed, and analysis show the  $p$  value .00001. This indicated a highly significant relationship ( $p < .05$ ) between some grade levels and participation in the B.E.S.T. Program that was probably too great to be accidental. Figure 3 illustrates calculated  $p$  values that show significant relationships ( $p < .05$ ) from grade to grade with the exception of Grades 4–5. The result is important in the examination of age and measured outcomes.

Figures 1–2 demonstrate that in 2009–2010, 70.6% ( $n = 101$ ) of the students in the program were classified as Moderately At-Risk, while 29.4% ( $n = 42$ ) were classified as Severely At-Risk. In 2010–2011, 60.5% ( $n = 72$ ) of the students in the program were classified as Moderately At-Risk, while 39.5% ( $n = 47$ ) were classified as Severely At-Risk. During 2011–2012, 63.6% ( $n = 75$ ) of the students in the program were classified

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as Moderately At-Risk, while 36.4% ( $n = 43$ ) were classified as Severely At-Risk. In 2009–2012, an average of 64.9% ( $n = 82.7$ ) of students were classified as Moderately At-Risk, while 35.1% ( $n = 44$ ) were classified as Severely At-Risk. In the 3 years, a total of 248 students were classified as Moderately At-Risk, while 132 were classified as Severely At-Risk. Chi-square tests of association in the level of participate risk indicated a  $p$  value of .00001, highlighting a highly significant relationship ( $p < .05$ ) between level of risk and participation in the B.E.S.T. Program.



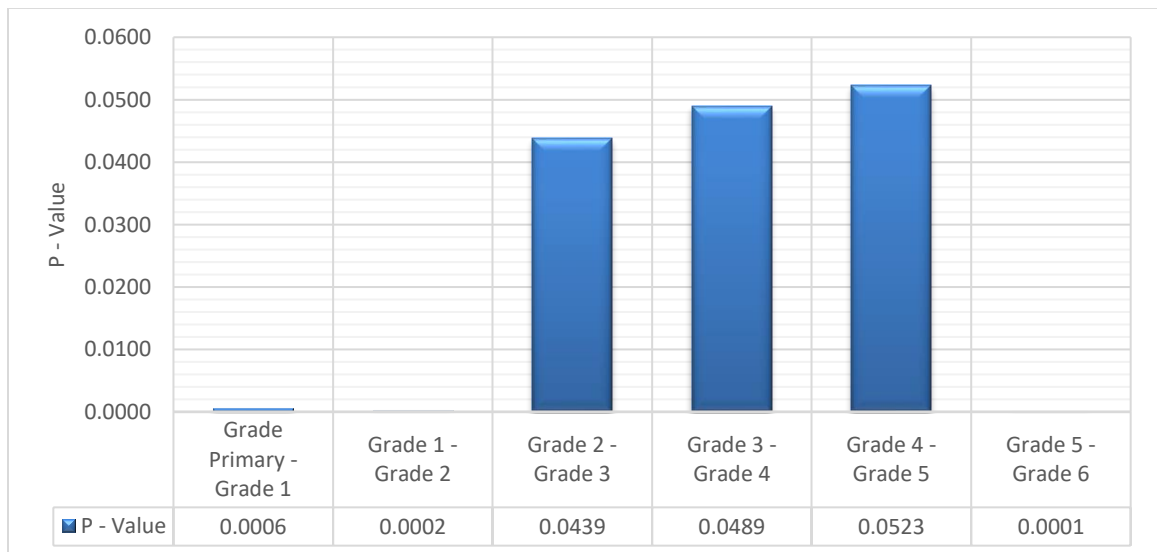
*Figure 2.* 2009–2012 Trends in B.E.S.T. Student Profile Data by Enrollment, Gender, Risk level, and Grade level. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright place early in children’s 2010, 2011, 2012 by CCRSB.

Behaviours in the At-Risk category include inappropriate actions or emotions which under normal circumstances would not cause dysfunction, learning difficulties that are not caused by another health factor, demonstrated difficulties with interpersonal relationships (peers or teachers), general feelings of unhappiness or depression, and

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feelings of fear and anxiety related to personal or school matters (Austin & Sciarra, 2010; Commonwealth of Virginia, 2010; Rosenburg, 2012). The results presented in Figures 1–2 demonstrate that the identification of emotional behavioural problems has been taking school experiences within the B.E.S.T. school sites and there is good evidence that early signs of potential EBD can be reliably detected (Kauffman & Landrum, 2009a; Landrum, 2011). This finding is consistent with the hypotheses and previous research by Dunlap et al. (2006) and Doll and Cummings (2008) that showed early and universal screening instruments need to be implemented to accurately identify students who are at risk.

Children with EBD are usually identified early in school due to emotional and behavioural patterns, consultation with available school-based professionals, and through the use of valid and reliable screening tools (Chorpita, Daleiden, et al., 2011; Daily et al., 2000).



*Figure 3.* 2009–2012 *P* value between each grade and participation in B.E.S.T. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

The Nova Scotia Department of Education and Early Childhood Development provided secondary data for the study that included the total number of students enrolled in each of the B.E.S.T. schools during 2009–2012. Figure 4 shows the total number of students in the eight B.E.S.T. schools each year and the total for all 3 years.

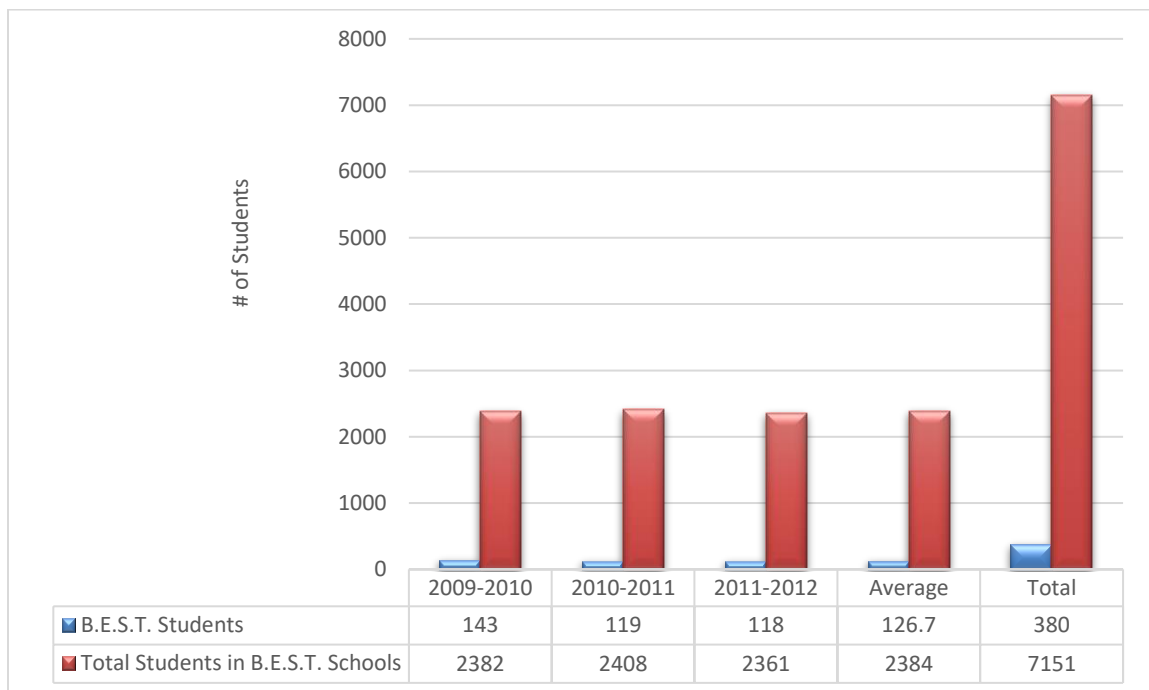
Approximately 5% of total student population for each school were B.E.S.T. participants.

Displayed in Figure 5 are the total numbers of Tier 2–3 students who participated in B.E.S.T. each year, as well as the 3-year total. Figure 4 shows that 143 B.E.S.T. students attended, Figures 5–6 reveal that in 2009–2010, 7.4% ( $n = 24$ ) of the total number of Grade Primary students participated in the B.E.S.T. Program, 6.6% ( $n = 28$ ) in Grade 1, 8.2% ( $n = 31$ ) in Grade 2, 5.1% ( $n = 18$ ) in Grade 3, 3.9% ( $n = 14$ ) in Grade 4, 6.6% ( $n = 22$ ) in Grade 5, and 3.0% ( $n = 6$ ) in Grade 6. The results demonstrated an average of 5.8% of the total school populations participated in Tier 2–3 interventions in 2009–2010 (see Figure 6). Figure 4 shows the total number of B.E.S.T. students ( $n = 119$ ) in 2010–2011 who attended in the eight B.E.S.T. schools ( $n = 2,408$ ). Figures 5–6 show that in Grade Primary, 5.9% ( $n = 23$ ) of all Grade Primary students participated in the B.E.S.T. Program, 5.4% ( $n = 18$ ) in Grade 1, 3% ( $n = 13$ ) in Grade 2, 6.9% ( $n = 26$ ) in Grade 3, 3.7% ( $n = 13$ ) in Grade 4, 4.7% ( $n = 16$ ) in Grade 5, and 5.3% ( $n = 10$ ) in Grade 6. An average of 5.0% of the total school populations participated in Tier 2–3 interventions (see Figure 6). Figure 4 reveals that the total number of students in the eight B.E.S.T. schools in 2011–2012 was 2,361 of whom 118 (4.9%) were B.E.S.T. students. Figures 5–6 indicate that in Grade Primary 3.8% ( $n = 13$ ) of the total number of Grade Primary students participated in the B.E.S.T. Program, 8.7% ( $n = 33$ ) in Grade 1,



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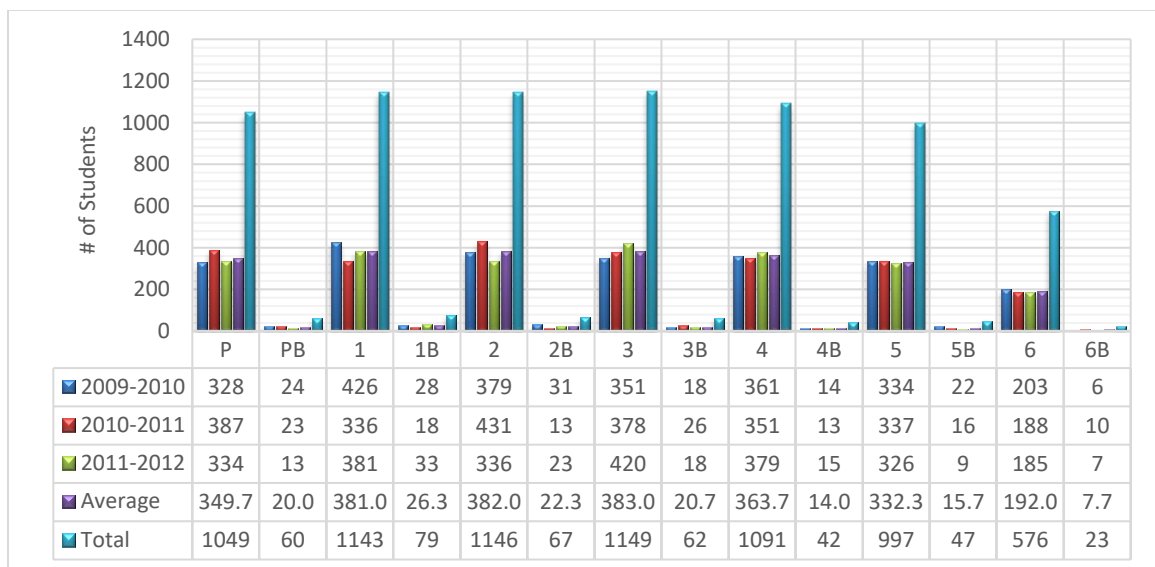
6.8% ( $n = 23$ ) in Grade 2, 4.3% ( $n = 18$ ) in Grade 3, 4% ( $n = 15$ ) in Grade 4, 2.8% ( $n = 9$ ) in Grade 5, and 3.8% ( $n = 7$ ) in Grade 6. An average of 4.9% of the total B.E.S.T. school populations participated in Tier 2–3 interventions in 2011–2012 (see Figure 6). Figure 5 shows that during 2009–2012, an annual average of 5.7% ( $n = 20$ ) of Tier 2–3 students were in Grade Primary, 6.9% ( $n = 26.3$ ) in Grade 1, 6.0% ( $n = 22.3$ ) in Grade 2, 5.4% ( $n = 20.7$ ) in Grade 3, 3.9% ( $n = 14$ ) in Grade 4, 4.7% ( $n = 15.7$ ) in Grade 5, and 4.0% ( $n = 7.7$ ) in Grade 6. The results revealed an average of 5.2% of the total school populations participated in Tier 2–3 interventions between 2009–2012 (see Figure 6).



*Figure 4.* 2009–2012 B.E.S.T. students and general student population enrollment. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012 and “Student Enrolment by Board and School Reports” by the Nova Scotia Department of Education. Copyright 2010, 2011, 2012 by CCRSB and 2010, 2011, 2012 by the Nova Scotia Department of Education.

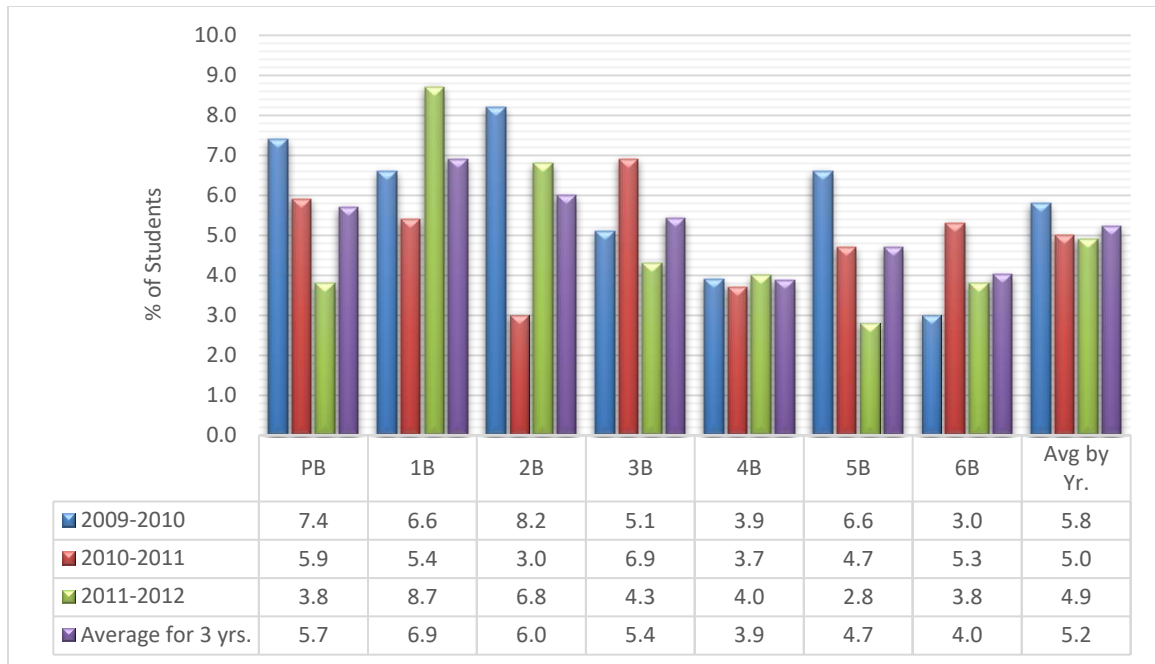
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The results in Figures 4–6 are consistent with the findings of the U.S. Department of Health and Human Services (2001); the United States National Research Council (2002); Costello, Egger, and Angold (2005); Dworet and Maich (2007); and Kauffman and Landrum (2009a), all of whom found that the prevalence of EBD is 3%–6% of a general student population. It is interesting to note Forness et al. (2012) observed that estimates of EBD far exceed much of the empirical research that identifies service gaps between prevalence estimates and special education identification and programming. Issues surrounding under-identification and/or misidentification of students with EBD attending to the CCRSB under-service and lack of resource allocation to support children with EBD (Kutcher & McLuckie, 2013; Leblanc et al., 2013; McIntosh et al., 2011).



*Figure 5.* 2009–2012 Enrollment of Students Participating in Tier 2–3 by Grade Level and Total School Population. Columns P, 1, 2, 3, 4, 5, and 6 = total number of students in each Grade Primary–6. Columns PB, 1B, 2B, 3B, 4B, 5B, and 6B = total number of students in each grade participating in the B.E.S.T. Program. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012 and “Student Enrolment by Board and School Reports” by the Nova Scotia Department of Education. Copyright 2010, 2011, 2012 by CCRSB and 2010, 2011, 2012 by the Nova Scotia Department of Education.

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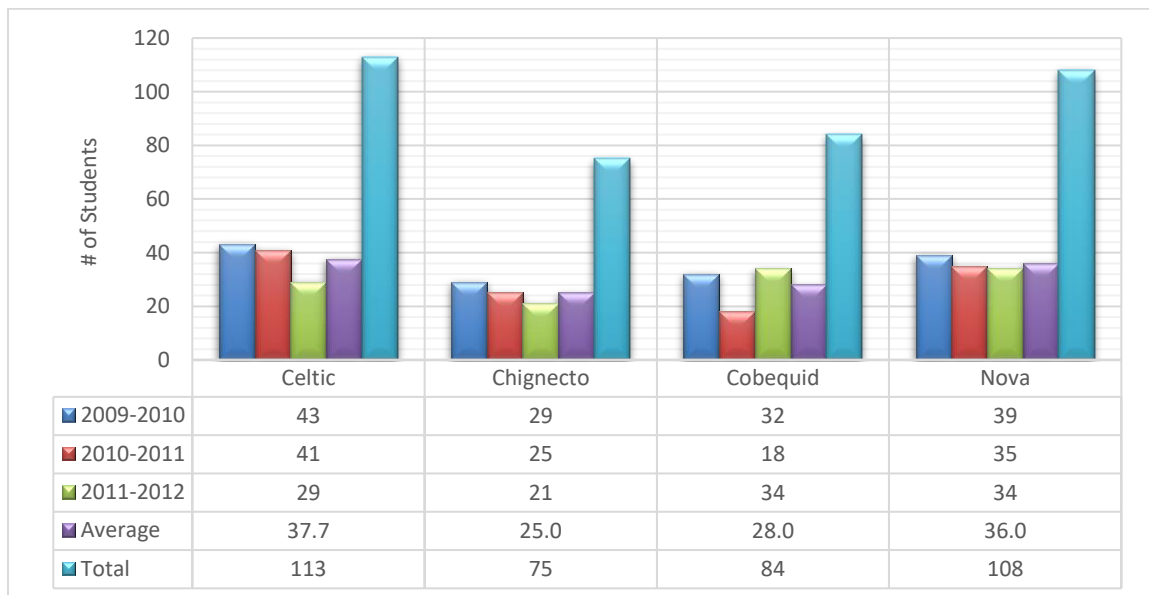


*Figure 6.* 2009–2012 percentage of all school students participating in Tier 2–3 by grade level. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012 and “Student Enrolment by Board and School Reports” by the Nova Scotia Department of Education. Copyright 2010, 2011, 2012 by CCRSB and 2010, 2011, 2012 by the Nova Scotia Department of Education.

Figures 7–8 demonstrate that in 2009–2010, 30% ( $n = 43$ ) of B.E.S.T. students were in the Celtic Family of Schools, 20.3% ( $n = 29$ ) were in the Chignecto Family of Schools, 22.4% ( $n = 32$ ) in the Cobequid Family of Schools, and 27.3% ( $n = 39$ ) in the Nova Family of Schools. In 2010–2011, 34.5% ( $n = 41$ ) of B.E.S.T. students were in the Celtic Family of Schools, 21.0% ( $n = 25$ ) in the Chignecto Family of Schools, 15.1% ( $n = 18$ ) in the Cobequid Family of Schools, and 29.4% ( $n = 35$ ) in the Nova Family of Schools. In 2011–2012, 24.6% ( $n = 29$ ) of B.E.S.T. students were in the Celtic Family of Schools, 17.8% ( $n = 21$ ) in the Chignecto Family of Schools, 28.8% ( $n = 34$ ) in the Cobequid Family of Schools, and 28.8% ( $n = 34$ ) in the Nova Family of Schools. In

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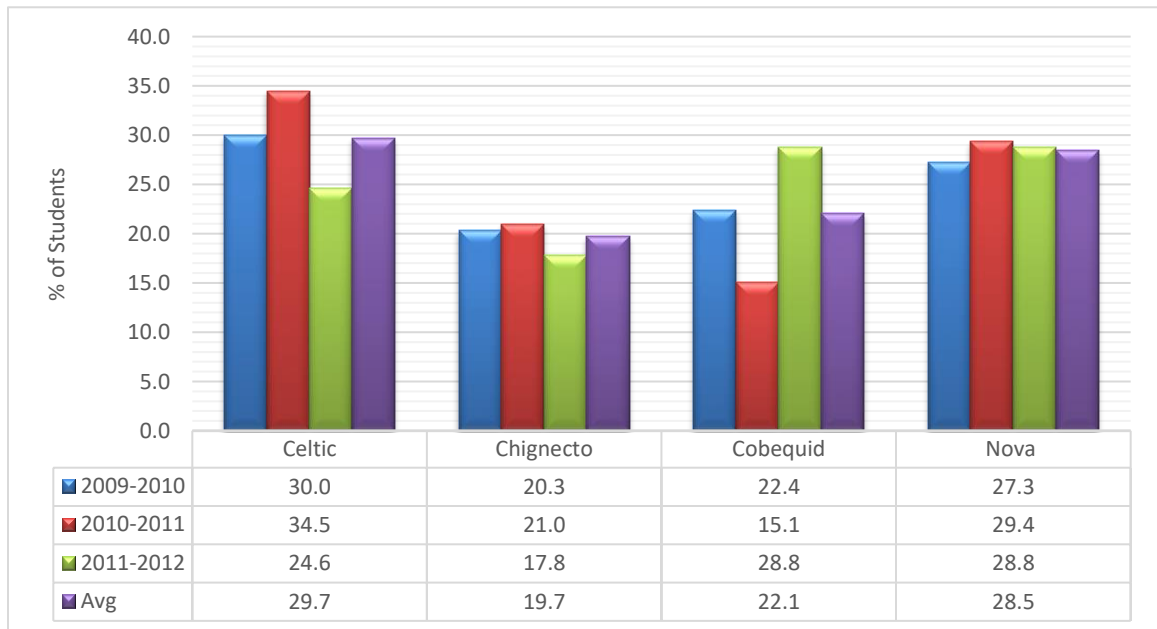
2009–2012, an average of 29.7% ( $n = 37.7$ ) of all children participating in this study were enrolled in the Celtic Family of Schools, 19.7% ( $n = 25$ ) in the Chignecto Family of Schools, 22.1% ( $n = 28$ ) in the Cobequid Family of Schools, and 28.5% ( $n = 36$ ) in the Nova Family of Schools. During 2009–2012, a total of 113 students in the B.E.S.T. Program were from the Celtic Family of Schools, 75 from the Chignecto Family of Schools, 84 from the Cobequid Family of Schools, and 108 from the Nova Family of Schools, for a total  $n = 380$ . Chi-square tests of association calculated a  $p$  value of .00663, indicating a significant relationship ( $p < .05$ ) exists between the family of schools and participation in the B.E.S.T. Program. Most participants were from the Celtic and Nova families of schools.



*Figure 7.* 2009–2012 percentage of students enrolled in B.E.S.T. Program by family of schools each year. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

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From 2009–2012 the Celtic, Chignecto, and Nova Families experienced decline in enrollment in the B.E.S.T. Program. Cobequid showed declining enrollment for the first two years of the study. The Celtic Family experienced a -16.67% change in enrollment, Chignecto Family had a +5.00% change in enrollment, Cobequid Family had a +31.82% change in enrollment, while Nova Family had a +7.41% change in enrollment. The reasons for changing participant numbers were not included in the data, but in all likelihood vary greatly and can include new students entering school catchment areas, increased school enrollments, family conditions, and allocation of clinical resources to service more children at specific locations. It should be noted, Pictou Landing and Sipekne’katik First Nations are located in Celtic and Nova Family of Schools.



*Figure 8.* 2009–2012 trend in B.E.S.T. student enrollment by family of schools each year. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

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Researchers have documented non-White students are over-represented in special education programs (Forness et al., 2012; Godinet et al., 2014; Serpell et al., 2009). The CCRSB should consider these trends to prevent any inaccurate over-representation and identification procedures ensuring a culturally relevant pedagogy. Appropriate services and resource allocations to all families of schools should address demonstrated needs as supported by applicable cultural research.

### **5.2 2009–2012 Services Provided in Schools**

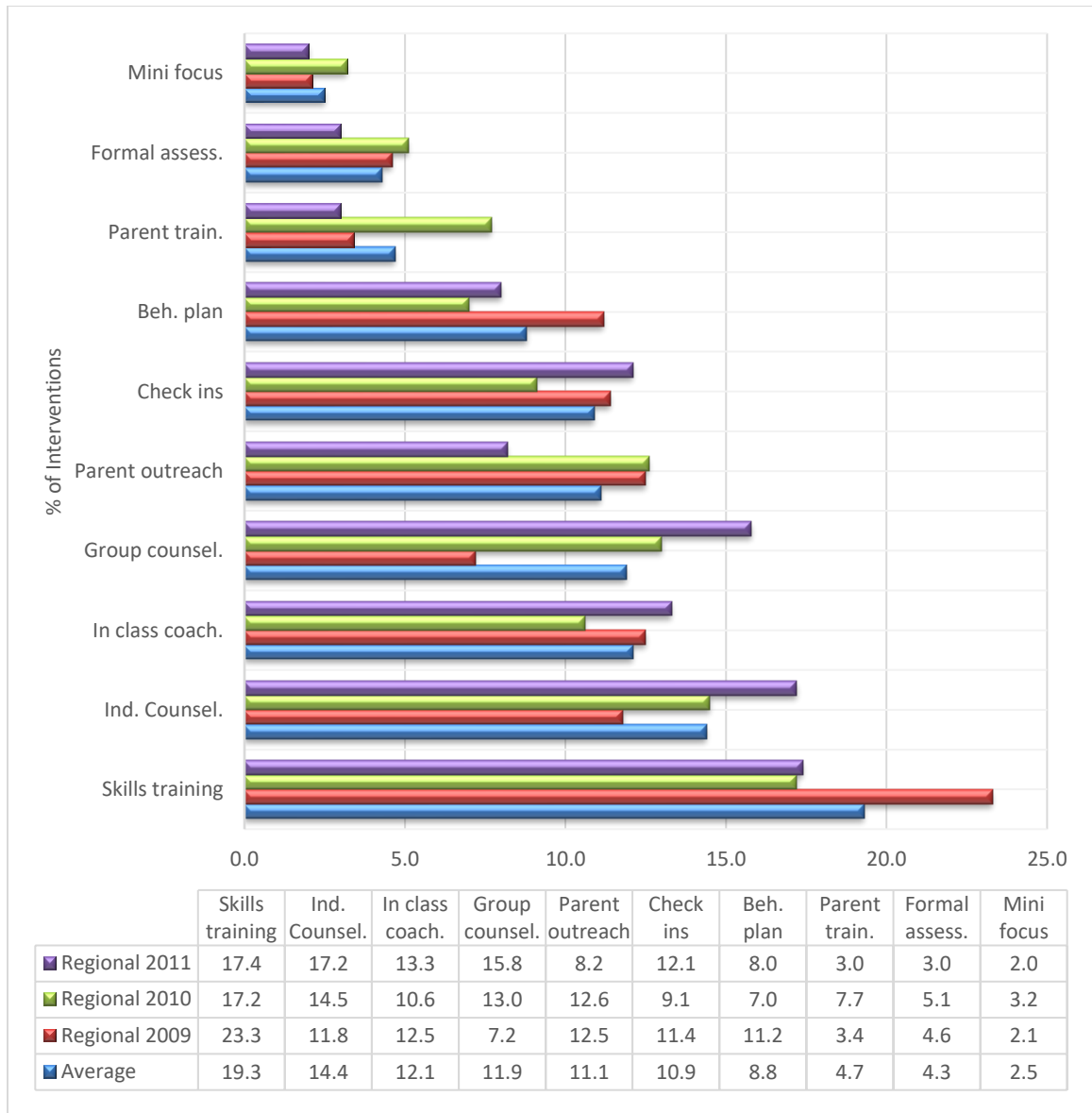
Students participating in Tier 2–3 of the B.E.S.T. Program received a combination of school-based services (i.e., individual counseling, skills training, behavioural assessment). Parents and caregivers of many children received home support services that included ongoing parent training, in-home problem-solving support, family functioning counseling, child behavioural management consulting, integrated mental health support, and referrals from the B.E.S.T. Program for consultations with medical doctors. Baseline data was collected for 2 weeks by B.E.S.T. staff, classroom and specialist teachers, and caregivers about each child’s level of emotional behavioural trends. Knowing children’s starting points by using baseline data enabled B.E.S.T. educators, teachers, caregivers, and administrators to determine the amount of progress that students have and should make during the interval of intervention (Ayers, Clarke, & Murray, 2015).

The data in Figure 9 is presented by year to show if trends developed in each family of schools over time or if they remained stable. Trends that increase or decrease over time allow easier identification of performance concerns (e.g., strengths and

challenges) and inform possible changes in resource allocation. Interventions that decreased from 2009–2012 included skills training, parent training, and behavioural plans. Interventions that increased from 2009–2012 were individual and group counseling. It is important that clinicians and educators analyze this information to ensure empirically supported strategies are implemented and proper training is available for stakeholders. A limitation in the data is a lack of evidence pertaining to what types of services were received by children for specific problems or disorders.

In 2009–2012 there were 1,380 recorded interventions with students and parents involved in the B.E.S.T. Program. As shown in Figures 9–10, 19.3% ( $n = 267$ ) of all 1,380 interventions involved skills training, 14.4% ( $n = 199$ ) individual counseling, 12.1% ( $n = 167$ ) in-class coaching, 11.9% ( $n = 164$ ) group counseling, 11.1% ( $n = 154$ ) parent outreach, 10.9% ( $n = 150$ ) check-ins, 8.8% ( $n = 121$ ) behaviour plans, 4.7% ( $n = 65$ ) parent training, 4.3% ( $n = 59$ ) formal assessment, and 2.5% ( $n = 34$ ) mini-focus.

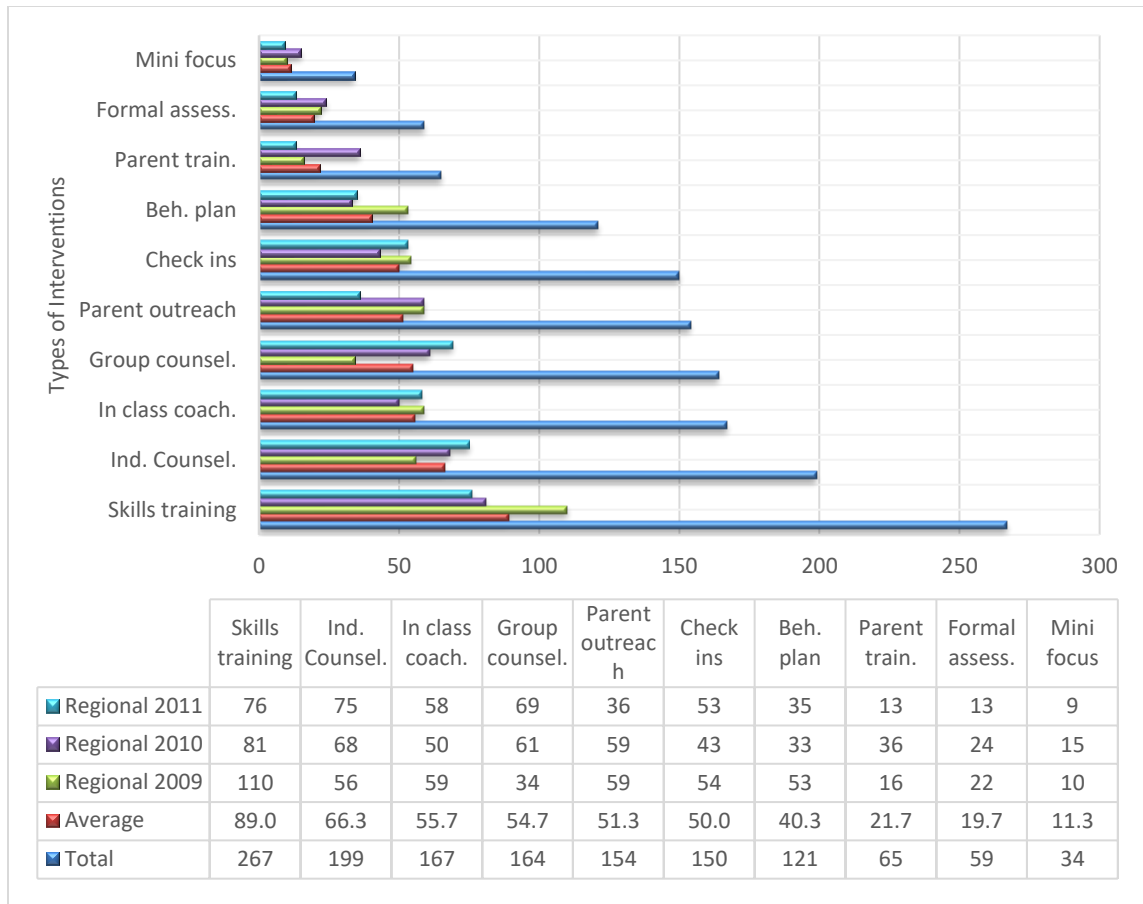
## Emotional Behavioural Supports for Children



*Figure 9.* 2009–2012 Regional Trends in Percentages for each Type of Intervention Provided at B.E.S.T. school sites. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.



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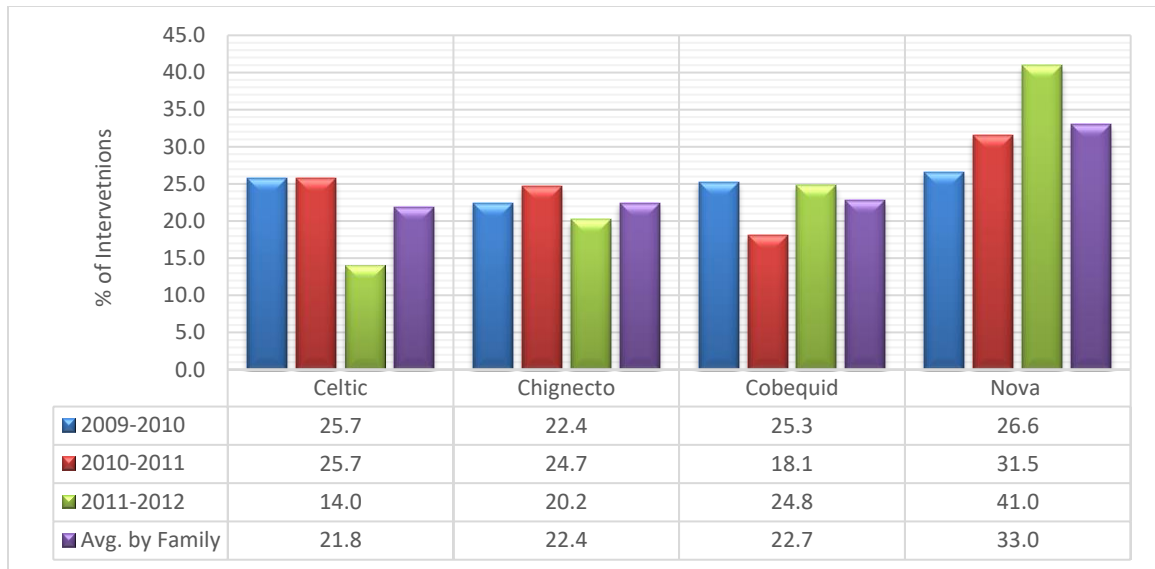
*Figure 10. 2009–2012 Types and Numbers of Interventions. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.*

Skills training was not only the most utilized intervention during the 3 years (19.3%), but increased in use each year. Parent training (4.7%), formal assessments (4.3%), and Mini Focus (2.4%) saw limited use between 2009–2012. A  $p$  value of .00001 was found, indicating a significant relationship ( $p < .05$ ) exists between each intervention and use in the B.E.S.T. Program. The data does not allow for analysis of the lack of use in formal assessments and mini-focus because the low utilization rates of parent training and formal assessments is contrary to empirically supported research

surrounding CBT, DBT, and family therapy that has shown both interventions play a critical role within school-based programs for children with EBD (Catalano et al., 2003; Chorpita, Bernstein, & Daleiden, 2011; Dodge et al., 2015; Embry, 2002; Perry-Parish et al., 2016; Silk et al., 2016).

Figures 11–12 show that in 2009–2010, 25.7% ( $n = 119$ ) of the overall number of school-based service interventions in the B.E.S.T. Program were in Celtic Family, 22.4% ( $n = 104$ ) were in Chignecto Family, 25.3% ( $n = 117$ ) in Cobequid Family, and 26.6% ( $n = 123$ ) in Nova Family. In the following year (2010–2011), 25.7% ( $n = 124$ ) of the overall number of interventions occurred in Celtic Family, 24.7% ( $n = 119$ ) in Chignecto Family, 18.1% ( $n = 87$ ) in Cobequid Family, and 31.5% ( $n = 152$ ) in Nova Family. In 2011–2012, 14.0% ( $n = 61$ ) of the overall number of interventions were in Celtic Family, 20.2% ( $n = 88$ ) were in Chignecto Family, 24.8% ( $n = 108$ ) in Cobequid Family, and 41.0% ( $n = 178$ ) in Nova Family. During 2009–2012, the average percentage of interventions was 21.8% ( $n = 101.3$ ) in Celtic Family, 22.4% ( $n = 103.7$ ) in Chignecto Family, 22.7% ( $n = 104$ ) in Cobequid Family, and 33% ( $n = 151$ ) in Nova Family. In 2009–2012, the total number of interventions in the Celtic Family was 304, 311 in the Chignecto Family, 312 in the Cobequid Family, and 453 in the Nova Family (see Figure 12). Chi-square tests of association found a  $p$  value of .00001, demonstrating a highly significant relationship ( $p < .05$ ) between each family of schools and percentage of services provided to students enrolled in the B.E.S.T. Program. It should be noted that some interventions may include multiple students, for example, group counseling.

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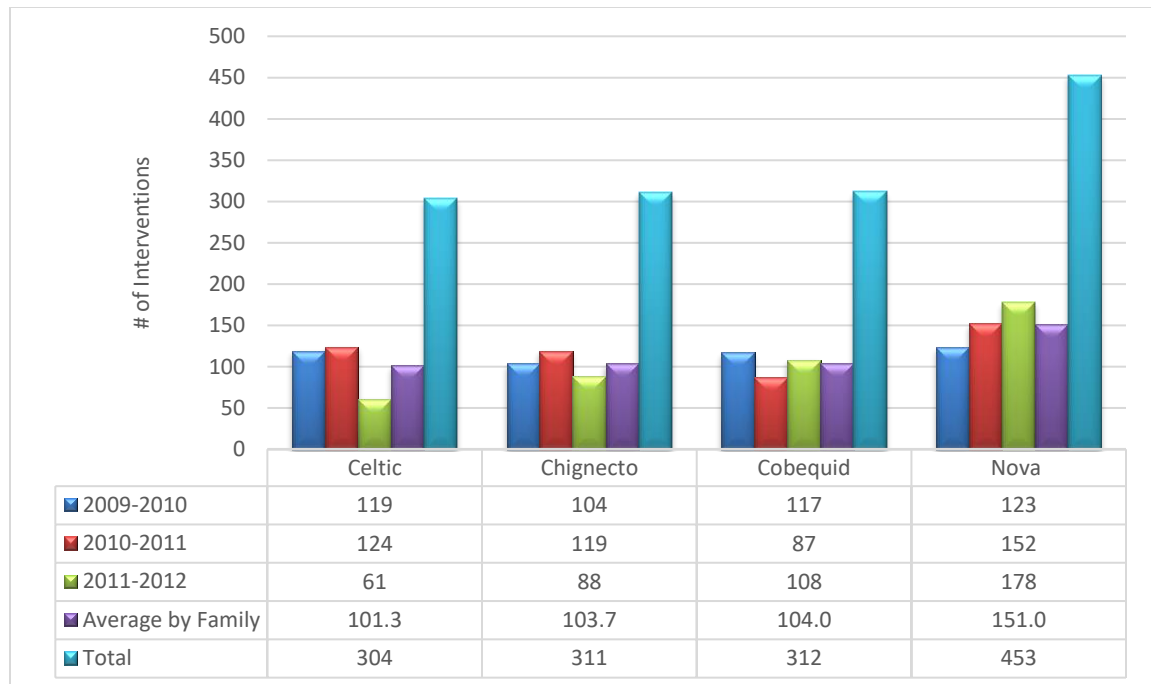


*Figure 11.* 2009–2012 regional percentage of services by family of schools. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

During the study period, the Nova Family of Schools demonstrated the greatest number of interventions with a 3-year average of 151.0 (an average of 33.0% of the total number of interventions were used by the Nova Family). The Celtic Family of Schools demonstrated the lowest number of interventions at 101.3 per year, while the Celtic, Chignecto, and Cobequid Families of Schools demonstrated similar low numbers of interventions (101.3 and 104 interventions or 21.8% to 22.7% of the total). The data for 2011–2012 demonstrated a shift in the 3-year trends with steady decreases in utilization of interventions in the Celtic and Chignecto Families, increases in the Nova Family, that warrants greater consideration with respect to variables that may have existed in the B.E.S.T. Program for the Nova and Cobequid families of schools. It is important for the CCRSB to be aware of culturally and racially significant variables in the identification, assessment, and programming for ethnic minority students that may be affecting trends in

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interventions in specific families of schools (Achenbach, Edelbrock, & Howell, 1987; Forness et al., 2012; Godinet et al., 2014).



*Figure 12.* 2009–2012 trend in regional services by family of schools. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

For this study, a request was made to the Nova Scotia Department of Education and Early Childhood Development and the CCRSB for secondary quantitative data pertaining to African Nova Scotian and First Nations students within the board. Racially disproportionate discipline outcomes for students from non-White backgrounds have been consistently documented (Aud, Fox, & Kewal-Ramani, 2010; Skiba et al., 2011). The Nova Scotia Department of Education and the CCRSB electronically relayed information to me indicating that the province and school boards did not start collecting

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self-identification data until the implementation of the province-wide Power School data management system in 2012. Prior to 2012 the requested data was not available (V. Hiscock, Statistics and Data Management, N.S. Department of Education and Early Childhood Development, personal communication, November 23, 2016). The Nova Scotia Department of Education forwarded estimates using the National Household Survey (Statistics Canada, 2011) data for families indicating that 3.3% ( $n = 4,000$ ) Nova Scotia students/families self-identified as having African heritage. Using the same method, the department revealed that approximately 5% ( $n = 5,900$ ) of Nova Scotian First Nation families have children attending public schools. Aboriginal children aged 14 and under made up 28.0% of the total Aboriginal population in Canada and 7.0% of all children in Canada (Government of Canada, 2011).

The Nova, Cobequid, and Celtic families of schools have a significant number of African Nova Scotian and First Nations students within the general population (e.g., Sipekne'katik, Mill Brook, Pictou Landing). Future analysis is warranted that includes a culturally responsive pedagogy for racial and ethnic minority students. A culturally responsive pedagogy is a child-centered approach in which the importance of including a student's cultural references is embedded in all aspects of learning (Ladson-Billings, 2014). In 2015, the CCRSB added two cultural coaches to the Educational Services Department to strengthen cultural competence of administrators and community with the goal of enhancing learning and achievement within racial and ethnic minority student populations.

### 5.3 2009–2012 Program Data Tracking Results

The indicators of program effectiveness used to assess data from the first 3 years of the study were based on the work of Waschbusch and Willoughby (1998). A student loss of all three behavioural markers being tracked at each school site meant that the student lost his or her positive notes on at least 2 days per week and consequently attended Friday focus sessions. A loss of two markers resulted in a student losing one positive note but not required to Friday focus sessions. A loss of one marker meant a student had a behavioural infraction during the week that did not warrant a consequence. It was hypothesized that decreases in dysfunctional behaviours and number of infractions, lost notes, and attendance at Friday focus sessions were indicators of program effectiveness. Number of lost notes was contingent on a certain number of infractions, and focus session attendance was dependent on a defined number of lost notes. When students showed improvement in only one of the three markers it suggested that a review of programming for these students was required. A student's attendance at a focus session was contingent on the loss of two positive notes in the course of a week, and the loss of a positive note was contingent on the student having accumulated two or more school rule infractions in a day (Jones, 2010, 2011, 2012).

Student data was collected daily through teacher tracking sheets, lost positive notes, and office referrals. Figures 13–14 show that in 2009–2010, 42% ( $n = 60.0$ ) of students participating in the B.E.S.T. Program had decreases in all three markers (infractions, lost notes, focus sessions). Another 22% ( $n = 31$ ) decreased in two of the areas, while 20% ( $n = 29$ ) demonstrated a decrease in one marker. Of the students

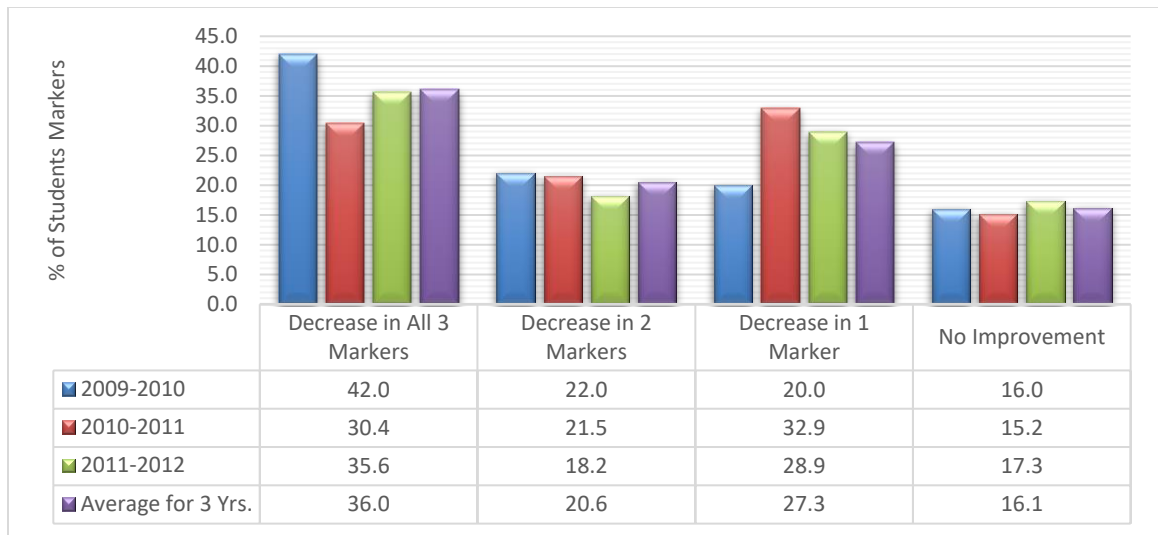
## Emotional Behavioural Supports for Children

participating in the program, 16% ( $n = 23$ ) demonstrated no decreases in any of the markers. The 2010–2011 data collected suggested 30.4% ( $n = 36$ ) of students participating in the B.E.S.T. clinical component had decreases in all three markers (infractions, lost notes, and focus sessions). Another 21.5% ( $n = 26$ ) of students had decreases in two of the areas, while 32.9% ( $n = 39$ ) had a decrease in one marker. Of the students participating in the program, 15.2% ( $n = 18$ ) demonstrated no decreases in any of the markers. The 2011–2012 data collected revealed that 35.6% ( $n = 42$ ) of students participating in the B.E.S.T. clinical component had decreases in all three markers (infractions, lost notes, and focus sessions). Another 18.2% ( $n = 22$ ) of students had decreases in two of the areas, while 28.9% ( $n = 34$ ) had a decrease in one marker. Of the students participating in the program, 17.3% ( $n = 20$ ) demonstrated no decreases in any of the markers.

Overall, in 2009–2012, an average of 36% ( $n = 46.0$ ) of all students participating in Tiers 2 and 3 demonstrated a decrease in all three markers, 20.6% ( $n = 26.3$ ) in two markers, 27.3% ( $n = 34.0$ ) in one marker, while 16.1% ( $n = 20.3$ ) demonstrated no improvement. In the 3 years, 83.9% ( $n = 319$ ) of students had a decrease in markers. During 2009–2012, a total of 138 students had a decrease in all three markers, 79 in two markers, 102 in one marker, and 61 demonstrated no improvement (see Figure 14). A  $p$  value of .00001 was found, which demonstrated strong evidence there is a correlation between student improvement in all three markers and enrollment in the B.E.S.T. Program ( $p < .05$ ). Although the data did not provide information about specific benchmark changes for each marker, it is important for the CCRSB to analyze this trend

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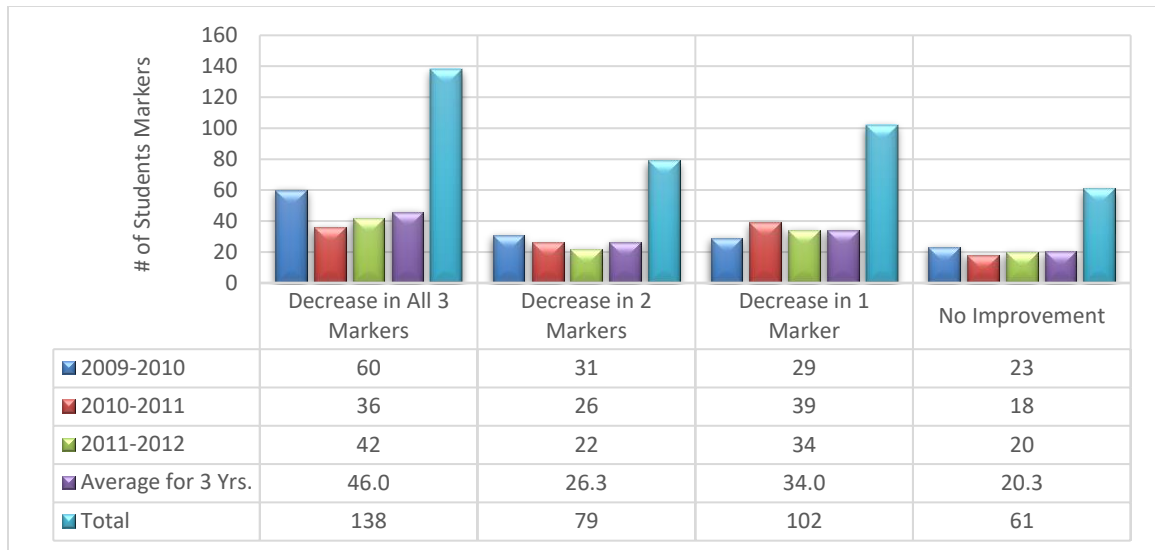
in an effort to best support students. For example, there may exist a need for increased tertiary care for the annual average of 16.1% ( $n = 20.3$ ) of students who demonstrated no decreases in any of the markers. Results indicate that student participation in the B.E.S.T. Program reduced the rate of emotional and behavioural dysfunction, which is consistent with reviewed literature (Adams, 2007; Bradshaw et al., 2015; Catalano et al., 2003; Dodge et al., 2015; Hussey & Flannery, 2007; Kellam et al., 2008; Meyer & Young, 2014; Schonfeld et al., 2014; Waasdorp et al., 2012).



*Figure 13.* 2009–2012 Percentage of B.E.S.T. Students in Tiers 2–3 who Showed a Decrease in School Rule Infractions. B.E.S.T. Program students had decreases in their daily rates of school rule infractions, focus session attendance, and/or positive notes. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.



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*Figure 14.* 2009–2012 trend of decrease in school rule infractions by B.E.S.T. students in Tiers 2–3. B.E.S.T. Program students could show decreases in their daily rates of school rule infractions, focus session attendance, and/or positive notes. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

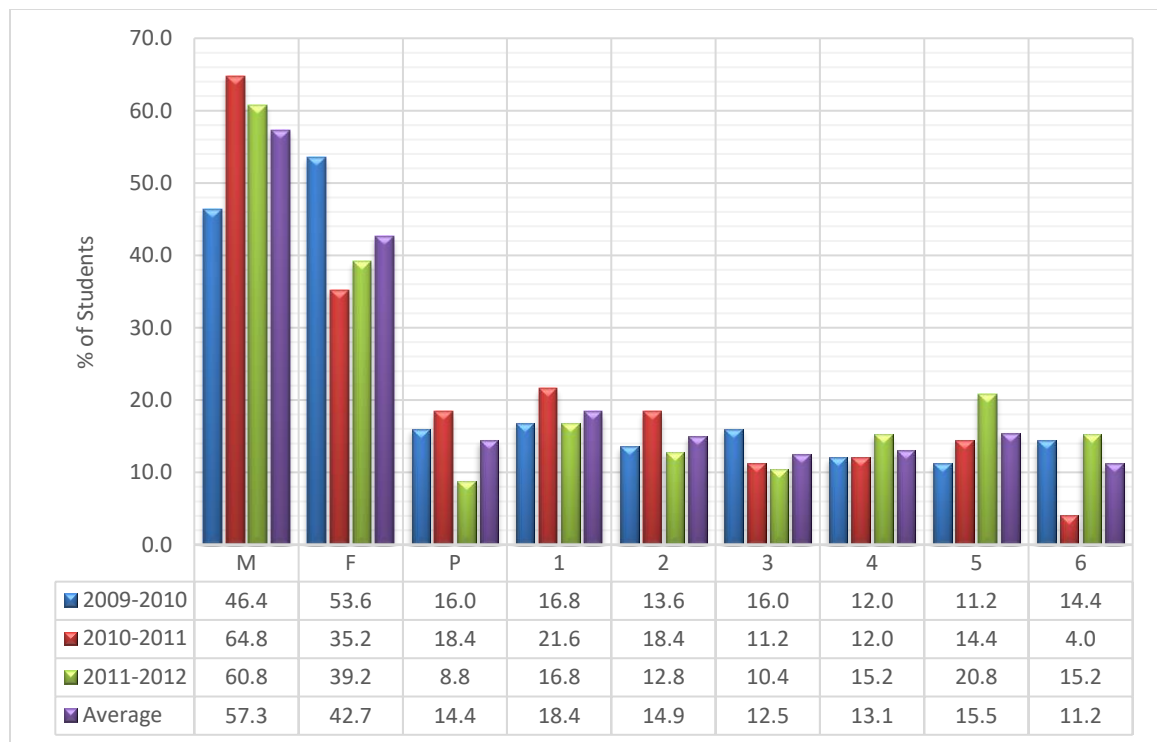
### 5.4 Control Group

Each year, 125 children were randomly selected to participate in the control group. Figures 15–16 illustrate that for 2009–2010, 46.4% ( $n = 58$ ) were male students and 53.6% ( $n = 67$ ) were female. In 2010–2011, 64.8% ( $n = 81$ ) were male students and 35.2% ( $n = 44$ ) were female. In 2011–2012, 60.8% ( $n = 76$ ) were male and 39.2% (49) were female. In 2009–2012, on average 57.3% ( $n = 71.7$ ) of the control group was male and 42.7% ( $n = 53.3$ ) were female. During 2009–2012, a total of 215 students in the control group were male, while 160 were female.

Figures 15–16 show that in 2009–2010, 16% ( $n = 20$ ) of the control group students were in Grade Primary, 16.8% ( $n = 21$ ) in Grade 1, 13.6% ( $n = 17$ ) in Grade 2, 16% ( $n = 20$ ) in Grade 3, 12% ( $n = 15$ ) in Grade 4, 11.2% ( $n = 14$ ) in Grade 5, and 14.4%

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( $n = 18$ ) in Grade 6. For 2010–2011, 18.4% ( $n = 23$ ) of the 125 students were Grade Primary students, 21.6% ( $n = 27$ ) in Grade 1, 18.4% ( $n = 23$ ) in Grade 2, 11.2% ( $n = 14$ ) in Grade 3, 12% ( $n = 15$ ) in Grade 4, 14.4% ( $n = 18$ ) in Grade 5, and 4% ( $n = 5$ ) in Grade 6. For 2011–2012, 8.8% ( $n = 11$ ) of the 125 students were in Grade Primary, 16.8% ( $n = 21$ ) in Grade 1, 12.8% ( $n = 16$ ) in Grade 2, 10.4% ( $n = 13$ ) in Grade 3, 15.2% ( $n = 19$ ) in Grade 4, 20.8% ( $n = 26$ ) in Grade 5, and 15.2% ( $n = 19$ ) in Grade 6. During 2009–2012, on average 14.4% ( $n = 18$ ) of the control group were in Grade Primary, 18.4% ( $n = 23$ ) in

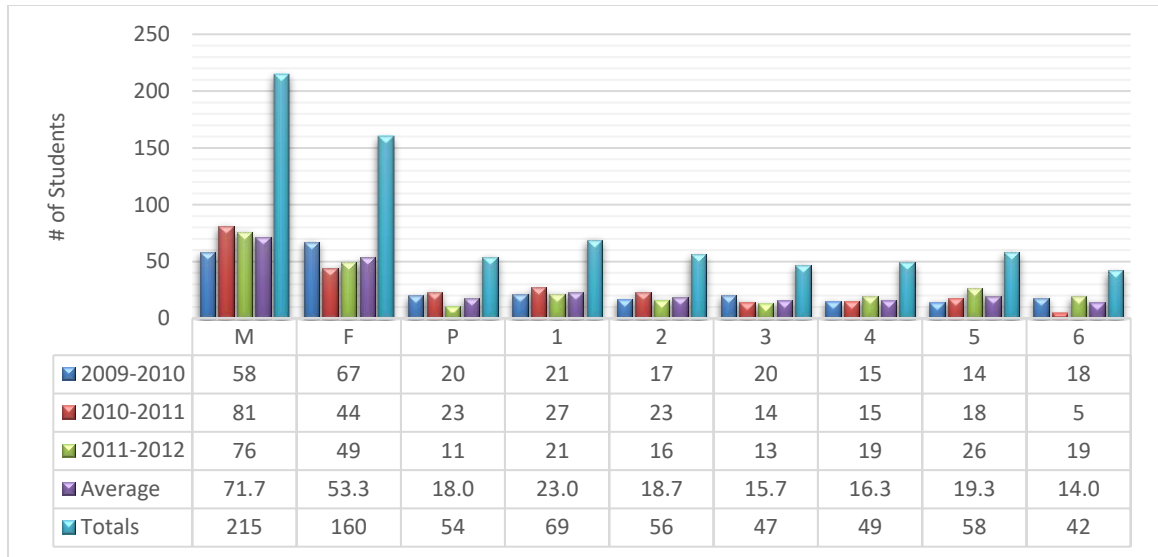


*Figure 15.* 2009–2012 percentage of control group by gender and grade level. Adapted from data supplied by the CCRSB 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

Grade 1, 14.9% ( $n = 18.7$ ) in Grade 2, 12.5% ( $n = 15.7$ ) in Grade 3, 13.1% ( $n = 16.3$ ) in Grade 4, 15.5% ( $n = 19.3$ ) in Grade 5, and 11.2% ( $n = 14$ ) in Grade 6. In 2009–2012, a

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total of 54 students were in Grade Primary, 69 in Grade 1, 56 in Grade 2, 47 in Grade 3, 49 in Grade 4, 58 in Grade 5, and 42 in Grade 6.

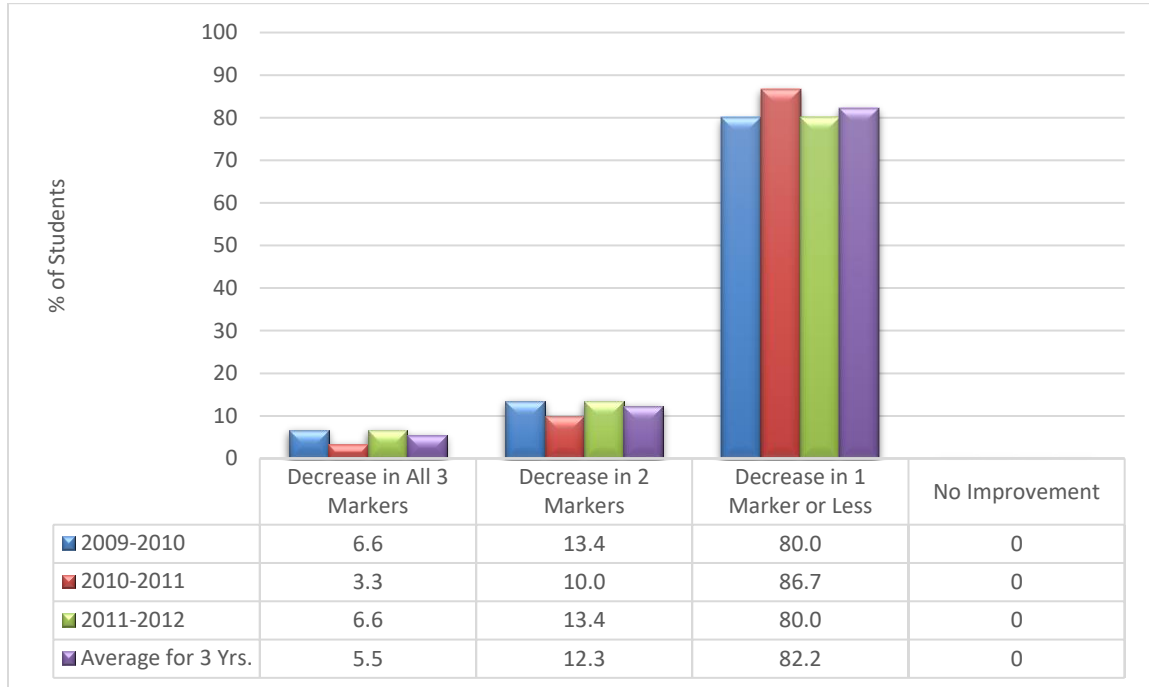


*Figure 16.* 2009–2012 Trends in Control Group Student Profile Data by Gender and Grade level. Adapted from data supplied by the CCRSB 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

According to tracking results, there is no evidence the control group was screened for EBD by clinicians. A total of 57.3% ( $n = 215$ ) of participants were male and 42.7% ( $n = 160$ ) were female. This is compared to 76.1% ( $n = 289$ ) male B.E.S.T. Program participants and 23.9% ( $n = 91$ ) female. The control group had a total of 3,020 rule infractions recorded during 2009–2012. The data provided by the CCRSB did not contain the total number of rule infractions for B.E.S.T. participants. Nonetheless, there are a number of contrasts in the results that should be noted. Figures 17–18 show that in the 2009–2010, 6.6% ( $n = 8$ ) of the students in the control group had a decrease in all

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three markers (infractions, lost notes, focus sessions). Another 13.4% ( $n = 17$ ) had a decrease in two markers, while



*Figure 17.* 2009–2012 percentage decrease in (Tier 1) control group. Percentage of control group students who demonstrated decreased daily rates of school rule infractions and/or lost positive notes and/or focus session attendance. Adapted from “B.E.S.T. Annual Reports,” Jones, 2009–2012. Copyright 2009–2012 by CCRSB.

80.0% ( $n = 100$ ) demonstrated one lost marker. The 2010–2011 data collected shows 3.3% ( $n = 4$ ) of students in the control group had a decrease in all three markers. Another 10.0% ( $n = 13$ ) had a decrease in two markers, while 86.7% ( $n = 108$ ) showed a decrease in one lost marker. The 2011–2012 data collected indicated 6.6% ( $n = 8$ ) of the students in the control group had a decrease in all three markers. Another 13.4% ( $n = 17$ ) had a decrease in two markers, while 80.0% ( $n = 100$ ) demonstrated a decrease in one lost marker. During 2009–2012, a yearly average of 5.5% ( $n = 6.7$ ) of students in the control

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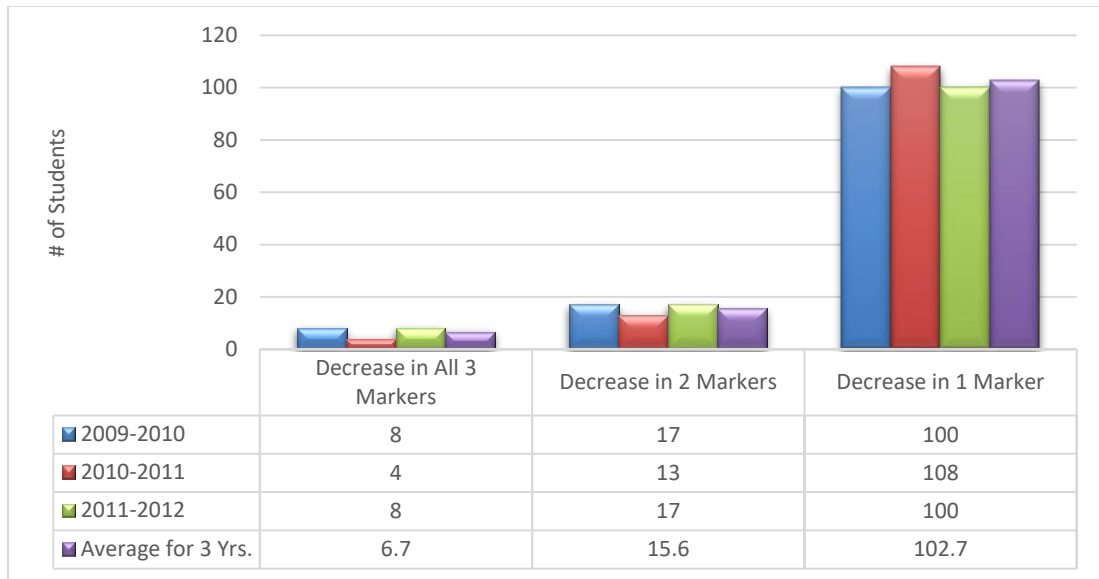
group had a decrease in all three markers. Another 12.3% ( $n = 15.6$ ) had a decrease in two markers, while 82.2% ( $n = 102.7$ ) showed a decrease in one lost marker. The data demonstrates that B.E.S.T. students participating in Tiers 2 and 3 had more incidents of emotional and behavioural dysfunction compared to Tier 1 control students, as hypothesized. Consequently, members of the control group demonstrated a much less significant need for Tier 2 and 3 supports overall. A limitation in the control group data is the lack of consistent tracking of Tiers 1–3 students across all eight B.E.S.T. school sites.

Figure 19 shows the 2009–2012 average decrease of school rule infractions for B.E.S.T. students (Tier 2 and 3) and the control group (Tier 1). The data suggest clinical intervention for Tier 2 and 3 students had a significant impact on decreasing dysfunctional behaviours, which concurs with applicable research studies reviewed as part of this study (Brauner & Stephens, 2006; E. L. Brown et al., 2012). This result supports the hypothesis that Tier 2 and 3 children involved in the B.E.S.T. Program would demonstrate a decrease in conduct problems (severity and problem) after clinical intervention. It is important to note that during 2009–2012, 27.3% ( $n = 102$ ) and 16.1% ( $n = 61$ ) of B.E.S.T. students had decreased in only one marker or made no improvement, which should have triggered a formal review of their programming (see Figures 13–14).

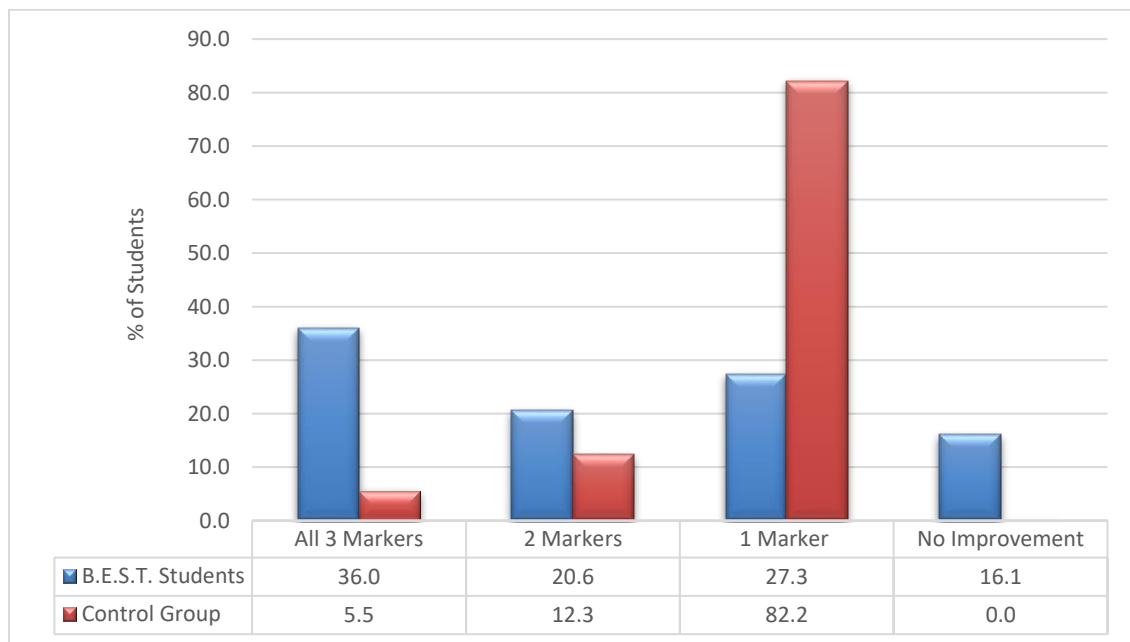
Figure 19 illustrates decreases in markers in Tier 1 control group students. The CCRSB should consider that some students in Tier 2–3 with EBD may only have needed to decrease one bench marker to be moved to a lower tier. Also, unlike B.E.S.T. group criteria of decrease in one marker and no improvements, control group criteria included a

single category of decrease in one marker or less which included no improvement. A possible reason for the control group's larger decrease in one marker behaviours and fewer decreases in two and three markers could be due to their behaviours being less severe than the B.E.S.T. student participants, who were more likely to be referred to the program. Tier 1 student that were a part of the control group may have made no improvements simply because their conduct was not an issue and improvement was not necessary. A number of reviewed RCTs showed similar results in improvement with respect to children in Tiers 1–3 participating in SWPBS programs (Bradshaw et al., 2015; E. C. Brown et al., 2005; Catalano et al., 2003; Frey et al., 2005). For example, the data found little change in control group behavioural infractions in losing two or three benchmarkers from 2009–2012 despite the school-wide model and direct teacher instruction. However, as mentioned previously, this limited change in control group behaviour infractions could be attributed to the possibility of their EBD being less severe than those of B.E.S.T. participants.

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*Figure 18.* 2009–2012 trend in decreased markers in (Tier 1) control group. Trend in control group students’ daily rates of school rule infractions and/or lost positive notes and/or focus session attendance. Adapted from “B.E.S.T. Annual Reports,” Jones, 2009–2012. Copyright 2009–2012 by CCRSB.



*Figure 19.* 2009–2012 Average Percentage of B.E.S.T. (Tier 2–3) and Control Group (Tier 1) students who Showed a Decrease in School Rule Infractions. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

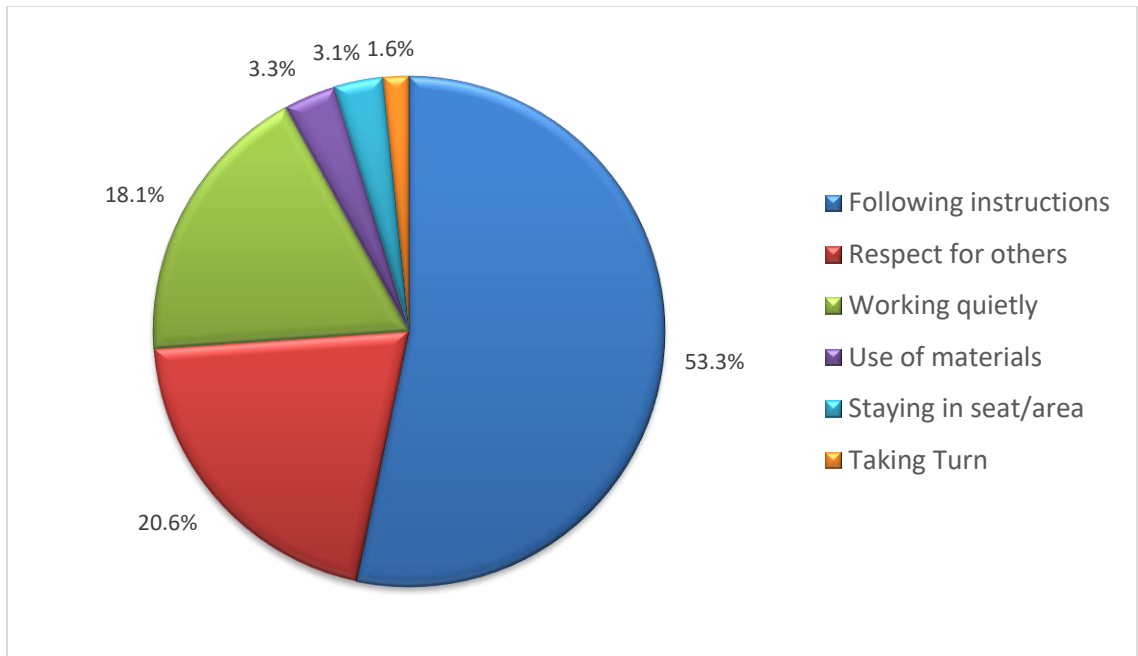
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Figures 20–21 show that at the eight B.E.S.T. school sites 53.3% ( $n = 1,610$ ) of the infractions in the control group were for failing to follow teacher or adult directions, 20.6% ( $n = 622$ ) were for not respecting others, 18.1% ( $n = 547$ ) were for not working quietly, 3.3% ( $n = 100$ ) were for not using materials appropriately, 3.1% ( $n = 93$ ) were for failing to stay in assigned seat or area, and 1.6% ( $n = 48$ ) were for not taking turns.

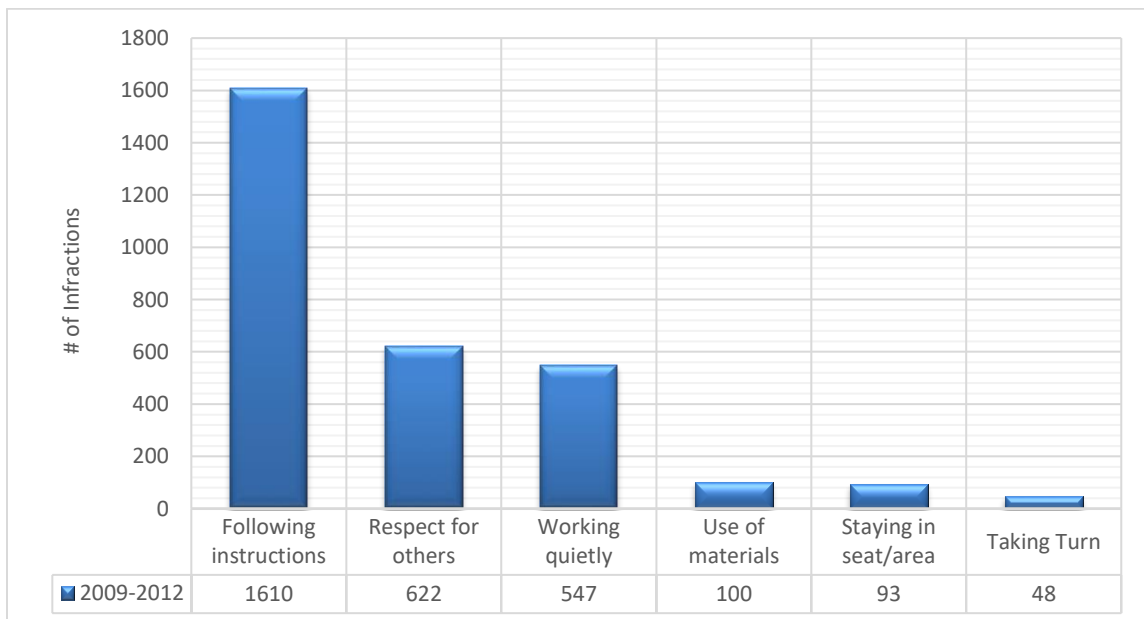
The greatest issue for Tier 1 students was not following the directions of the teacher (53.3%), an issue that is minor in nature. It is important for B.E.S.T. school sites to know this information because with limited intervention, classroom teachers could make specific changes to teaching pedagogy that target this trend and receive support through professional development focusing on routines based on behavioural, cognitive, and constructivist approaches to management. As revealed in the literature reviewed, a number of empirically supported strategies (social skills, training, peer assistance, behavioural self-control, problem-solving training) and programs (SWPBS, Second Step, the Good Behaviour Game, Raising Healthy Children, PATHS®, the Fast Track Program) can be implemented to provide universal support to all children (Caldarella et al., 2015; Durlak et al., 2011; Horner & Sugai, 2015; Jiménez-Barbero et al., 2016; Kelm et al., 2014; Turnbull & Turnbull, 2001).



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*Figure 20.* 2009–2012 Percentage Breakdown of Control Group Behavioural Infractions. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.



*Figure 21.* 2009–2012 Breakdown of Control Group Behavioural Infractions. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

### **5.5 Parent and Teacher Responses ECBI™ and SESBI-R™**

Teachers and parents of students enrolled in the B.E.S.T. Program were asked to provide data in the form of rating student behaviour prior to entry into the program and then again at the end of the program. In addition, teachers and parents were asked to provide feedback with respect to their satisfaction with a number of dimensions of the B.E.S.T. Program using a prepared rating form. The Eyberg Child Behaviour Inventory™ [ECBI™] for parents, and Sutter-Eyberg Student Behaviour Inventory–Revised™ [SESBI-R™] for staff are companion behavioural rating scales for children ages 2–16 years that are used to identify and measure conduct problems such as noncompliance, defiance, aggressiveness, and impulsiveness (Eyberg & Pincus, 1999). When used together, the measures provide stakeholders with information that is useful in the identification and treatment of EBD in children. The ECBI™ includes 36 items that assess typical problems of children with conduct disorders. It is completed by the parent or caregiver and used to assess the child’s behaviour. Items are rated on intensity and problem scales. The SESBI-R™ is completed by the child’s teacher to assess behaviour at school. It includes 38 items that are rated on severity and problem scales (Eyberg & Pincus, 1999). Eyberg and Pincus (1999) found by evaluating the variety and frequency of behaviours commonly exhibited by all children the instruments distinguish normal behaviour problems from conduct disordered behaviour in children and adolescents.

The ECBI™ and SESBI-R™ are sensitive to short-term changes, and thus can be used to evaluate emotional and behavioural progress through use of interventions. These tests can be used to (a) measure behaviour severity, (b) evaluate behaviour change, (c)

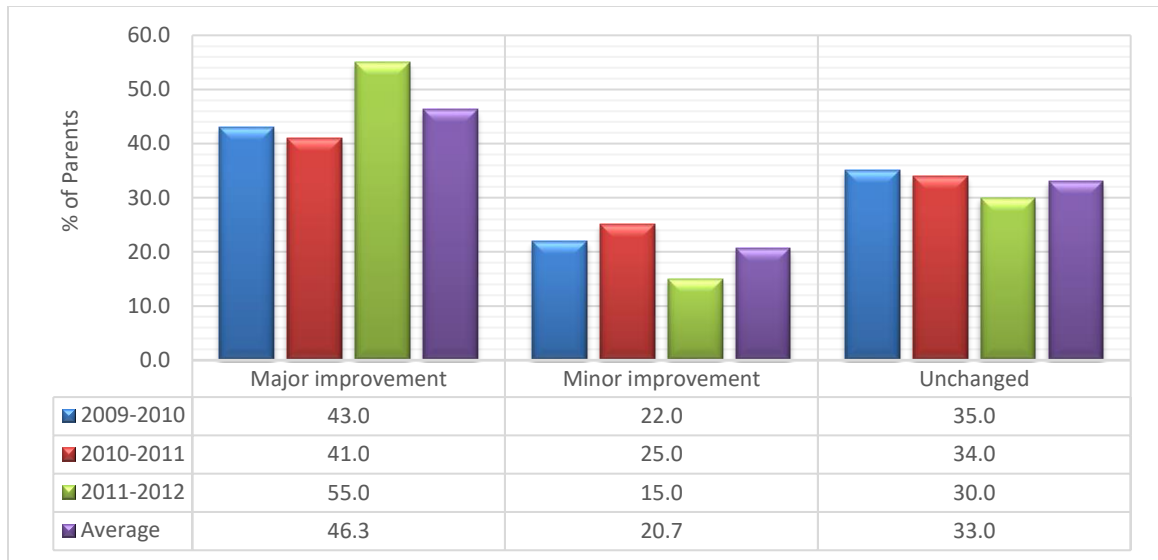
assess treatment progress, (d) aid in post-intervention treatment planning, (e) yield important information regarding parenting styles, and may sometimes be used in conjunction for cross-informant data-gathering purposes (Eyberg & Pincus, 1999). The SESBI-R™ Severity and Problem scales demonstrated high internal consistency and significant test-retest reliability, as well as convergent, discriminant, and predictive validity (Burns & Patterson, 1990; Butler, Brestan, & Eyberg, 2008; Funderburk et al., 2003; Kehle & Bray, 2003; Rich & Eyberg, 2001; Weis, Lovejoy, & Lundahl, 2005). Pre-intervention rating scales data were not provided by the CCRSB for the purposes of this study.

**5.5.1 ECBI™ Parent Behaviour Rating Scale–Severity.** Parents and teachers were asked to complete a satisfaction survey. The standard deviation was determined by the CCRSB during the B.E.S.T. Program planning and implementation process. The data are presented in percentage scores calculated on the following basis: If the rating scale standard score of a respondent decreased by 0.5 standard deviation or more when comparing post-entry standard score to pre-entry score, it was determined that a major improvement in the severity of the disruptive behaviour had been achieved. Thus, post-entry rating standard scores that were 0.5 standard deviation or lower than pre-entry scores are indicative of the student's disruptive behaviour being significantly less of a problem to the respondent. However, if a difference of 0.5 standard deviation was not achieved but there was an improved post-entry standard score, it was determined that a minor improvement was achieved. If the difference between pre-entry and post-entry standard scores was less than 0.5 standard deviation but there was an improved post-entry

standard score, it was determined that the student's disruptive behaviour was somewhat less of a problem to the respondent (Jones, 2010, 2011, 2012). The same comparative criteria were used for the problem scale of both rating instruments. The number of parents who completed the rating scale was not provided by the CCRSB for analysis.

According to the responses to the EBCI™ Parent Behaviour Rating Scale–Severity, it appears that students' conduct improved after participation in the B.E.S.T. Program. Figure 22 shows the 2009–2010 results in which 43.0% of parents reported a major improvement, 22.0% rated their child's behaviour as exhibiting a minor improvement, and 35.0% reported no change. The 2010–2011 results show 41.0% of parents reported a major improvement, 25.0% rated their child's behaviour as exhibiting a minor improvement, and 34.0% reported no change. The 2011–2012 results show 55.0% of parents reported a major improvement, 15.0% rated their child's behaviour as a minor improvement, and 30.0% reported no change. During 2009–2012 results show on average 46.3% of parents reported a major improvement, 20.7% rated their child's behaviour as a minor improvement, and 33% reported no change. Figure 22 shows an analysis of the ECBI™ Parent Rating Scale–Severity in 2009–2012 revealed an average of 67.0% of parents believed their children made some improvement in behavioural characteristics. The calculated  $p$  value (.00001) indicates the existence of a significant relationship between a parent's rating major improvement and participation in the B.E.S.T. program ( $p < .05$ ).

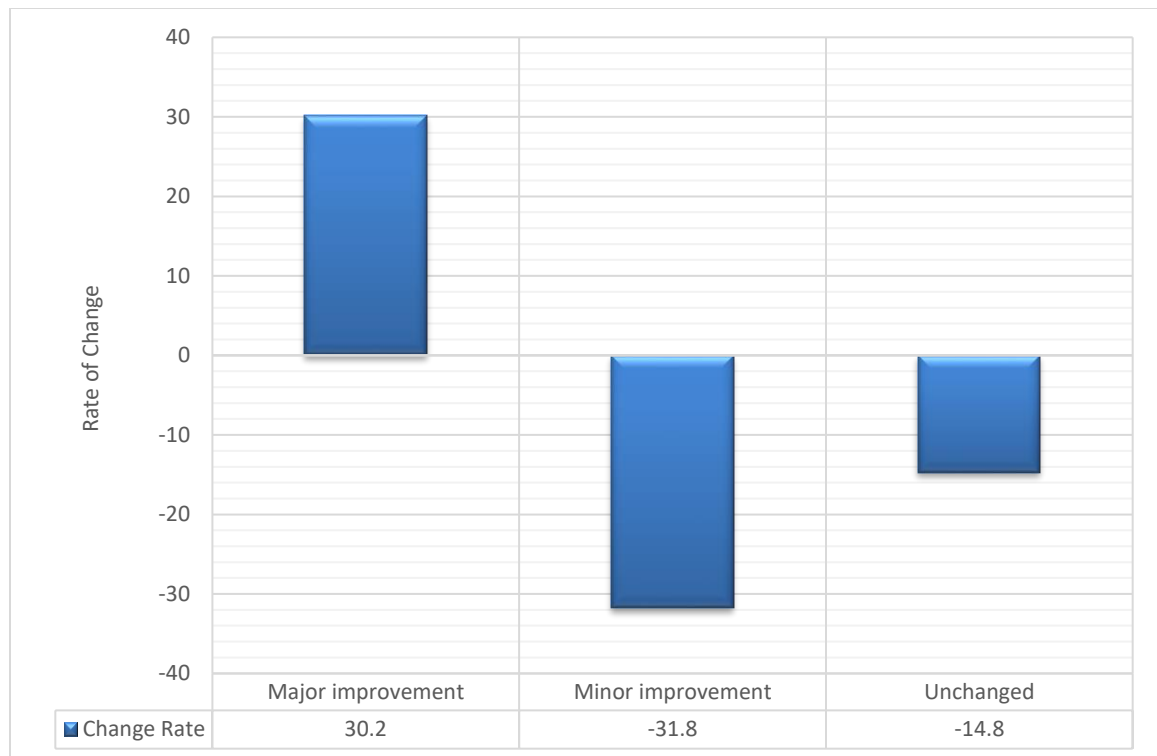
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*Figure 22. 2009–2012 ECBI™ Parent Behaviour Rating Scale–Severity. Percentage of students in 2009–2012 whose parents’ post-entry rating scale scores indicated a major improvement versus a minor but positive improvement versus no improvement in the severity of their child’s behaviour compared to scores on the same scale prior to intervention. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.*

Figure 23 demonstrates there exists a positive change rate of +30.2% for students showing major improvement, a negative change rate of -31.8 for students showing minor improvement, and a negative change rate of -14.8 for students showing no change during 2009–2012. The percent of change demonstrated parent’s perception of how the student’s behaviours changed between 2009–2012.

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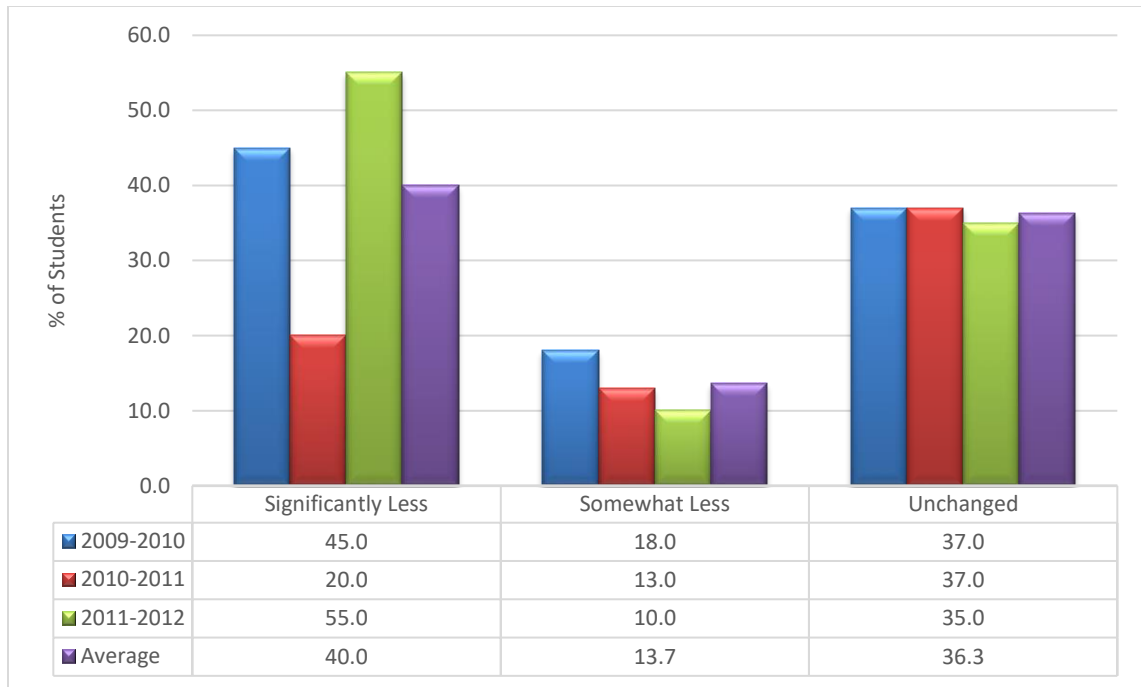


*Figure 23.* 2009–2012 rate of change in the ECBI™ Parent Behaviour Rating Scale–Severity. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

The results of the analysis of the ECBI™ Parent Behaviour Rating Scales–Severity are generally consistent with reviewed literature that specified parents found student participation in SWPBS programs effective in reducing the severity of emotional student participation in SWPBS programs effective in reducing the severity of emotional and behavioural problems (Bowman-Perrott et al., 2007; J. Cohen et al., 2006; Diamond & Josephson, 2005; Pears et al., 2015; Sukhodolsky et al., 2004; Webster-Stratton, 1999). Chorpita, Daleiden, et al. (2011), reported substantial research illuminates the implementation of evidence-based mental health promotion programs in schools.

**5.5.2 ECBI™ Parent Behaviour Rating Scale–Problem.** The ECBI™ Parent Behaviour Rating Scale–Problem was utilized to assess the students’ conduct after participation in the B.E.S.T. Program. Figure 24 shows the 2009–2010 results in which 45.0% of parents reported significantly fewer problems, 18.0% reported somewhat fewer, and 37.0% reported no change. The 2010–2011 results revealed 20.0% of parents reported significantly fewer problems, 13.0% reported somewhat fewer, and 37.0% reported no change. The 2011–2012 results showed 55.0% of parents reported significantly fewer problems, 10.0% reported somewhat less, and 35.0% reported no change. During 2009–2012, results show on average 40.0% of parents reported significantly fewer problems, 13.7% reported somewhat fewer, and 36.3% reported no change. It should be noted that a limitation in the scale is the lack of an option for parents/caregivers to relay more problems when completing the questions. The results of an analysis of the ECBI™ Parent Rating Scale–Problem in 2009–2012 revealed that on average, 53.7% of parents reported fewer behavioural problems of their children following participation in the B.E.S.T. Program. A  $p$  value of .00001 was calculated, which demonstrated a significant relationship between parents reports of less problems and their children’s participation in the B.E.S.T. program ( $p < .05$ ).

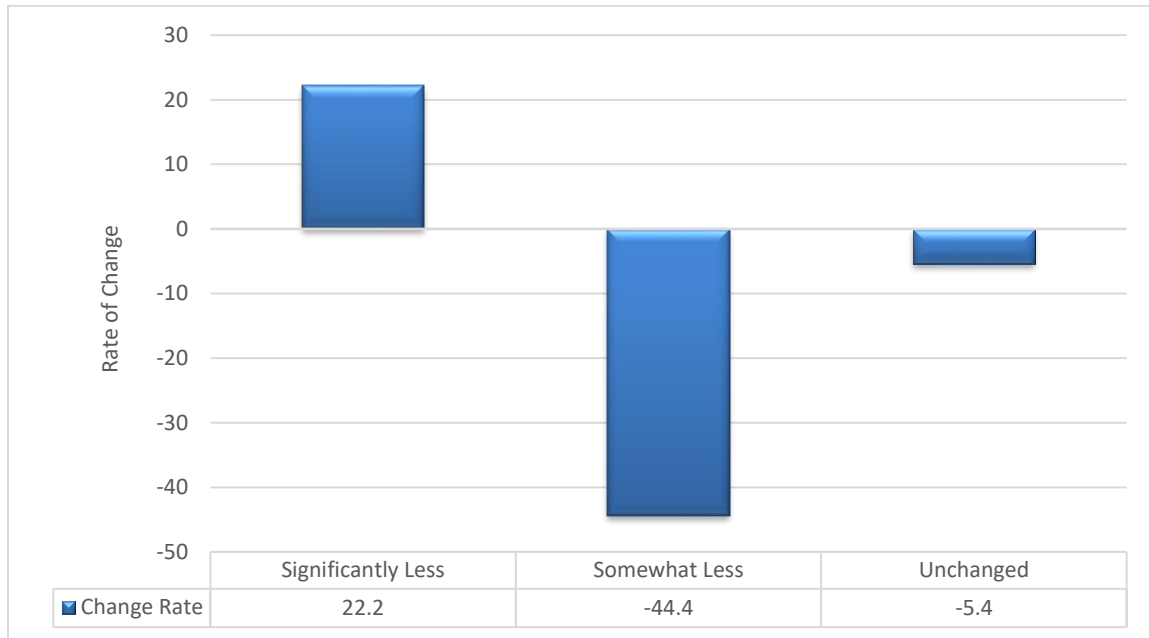
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*Figure 24.* 2009–2012 ECBI™ Parent Behaviour Rating Scale–Problem. Percentage of children in 2009–2012 whose parents’ post-entry rating scale scores indicated that their behaviour produced significantly fewer problems for their parents versus somewhat less problematic or remains unchanged compared to scores on the same scale prior to intervention. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

Figure 25 illustrates that a positive change rate of +22.2% of parent’s perceptions of their children showing significantly less problems, a negative change rate of -44.4 in parents reporting of somewhat less problems, and a negative change rate of -5.4 in parents reports of no change from 2009–2012. The results of the analysis of the ECBI™ Parent Behaviour Rating Scales–Problem support existing research that indicated parents found student participation in SWPBS programs effective in reducing emotional and conduct problems (C. M. Anderson & Borgmeier, 2010; Brooks, 2005; Collins et al., 2000; Crosby & Perkins, 2004; Kaminski et al., 2008; Loman & Horner, 2014; Pears et al., 2015).



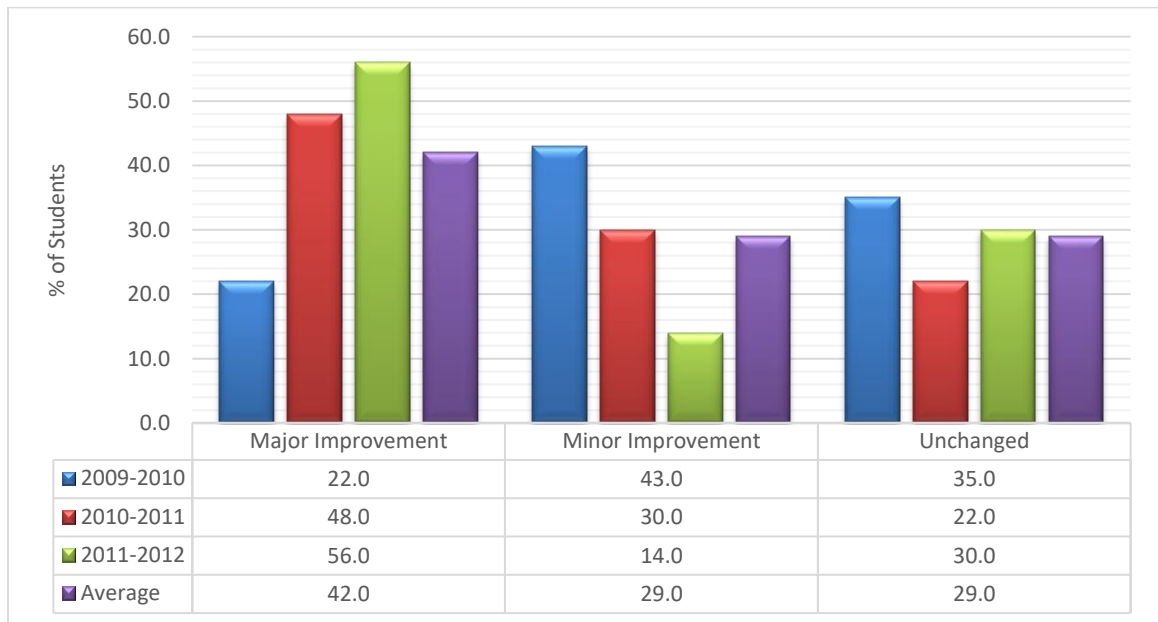


*Figure 25.* 2009–2012 rate of change in the ECBI™ Parent Behaviour Rating Scale–Problem. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

**5.5.3 SESBI–R™ Teacher Behaviour Rating Scale–Severity.** It should be noted that the surveys are more akin to problem checklists for child behaviour and the CCRSB could adjust the title to better describe the tool. I hypothesized that the results of the SESBI–R™ Teacher Behavior Rating Scale–Severity would demonstrate teachers perceived students’ conduct improved after participation in the B.E.S.T. Program. Figure 26 shows the 2009–2010 results in which 22.0% of teachers reported children made a major improvement, 43.0% of teachers reported minor improvement, and 35.0% of teachers indicated an unchanged rating in behaviour. In 2010–2011, the 48.0% of teachers reported children made a major improvement, 30.0% of teachers were reported as making a minor improvement, and 22.0% indicated an unchanged rating. In 2011–

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2012, 56.0% of teachers indicated children made a major improvement, 14.0% of teachers reported a minor improvement, and 30.0% of teachers gave an unchanged rating. During 2009–2012, results showed on average that 42.0% of teachers reported children had made a major improvement, 29.0% reported as making a minor improvement, and 29.0% of teachers indicated no change. Figure 26 reveals that an average of 71.0% of students made some improvement in behavioural characteristics.



*Figure 26.* 2009–2012 SESBI-R™ Teacher Rating Scale–Severity. Percentage of students in 2009–2012 whose teachers’ post-entry rating scale scores indicated that their behaviour was significantly less severe versus somewhat less severe or remained unchanged compared to scores on the same scale prior to intervention. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

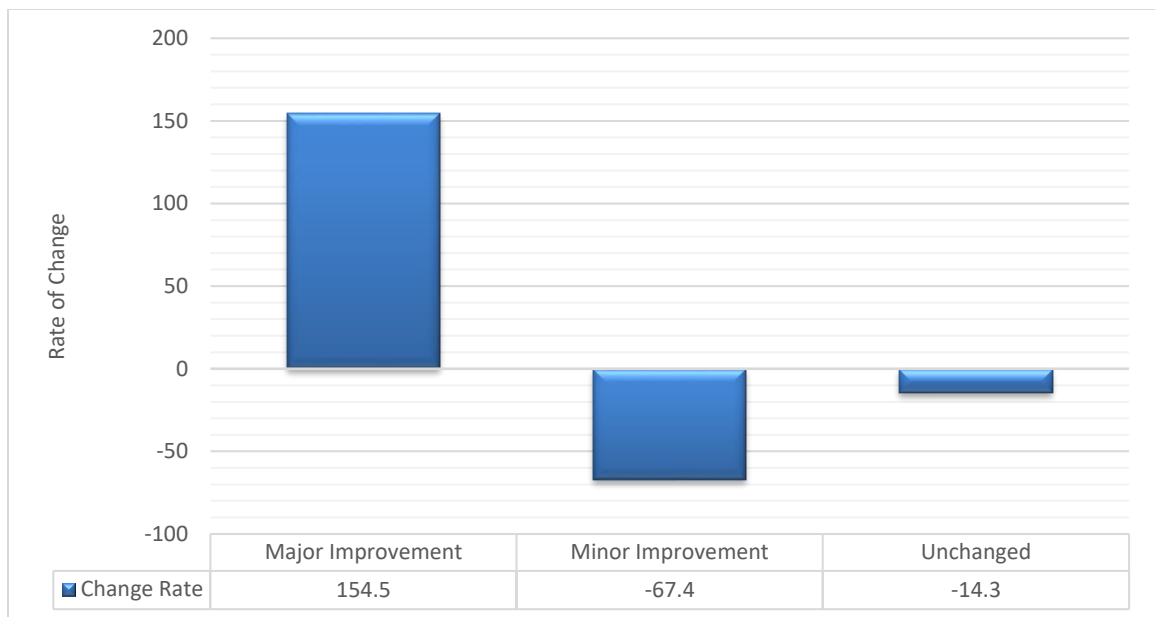
A *p* value of .00001 indicates teachers felt there was a significant relationship between improvement in severity and students that were participating in the B.E.S.T. Program.

The finding supports my hypotheses that teachers would see a highly significant

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correlation between participation and overall reduction in severity post-clinical intervention in the B.E.S.T. program ( $p < .05$ ).

Figure 27 demonstrates there exists a positive change rate of +154.5% in teacher's perceptions of students showing major improvement, a negative change rate of -67.4 for students showing minor improvement, and a negative change rate of -14.3 for students showing no change during this time period. In the past decade, numerous RCTs and meta-analyses



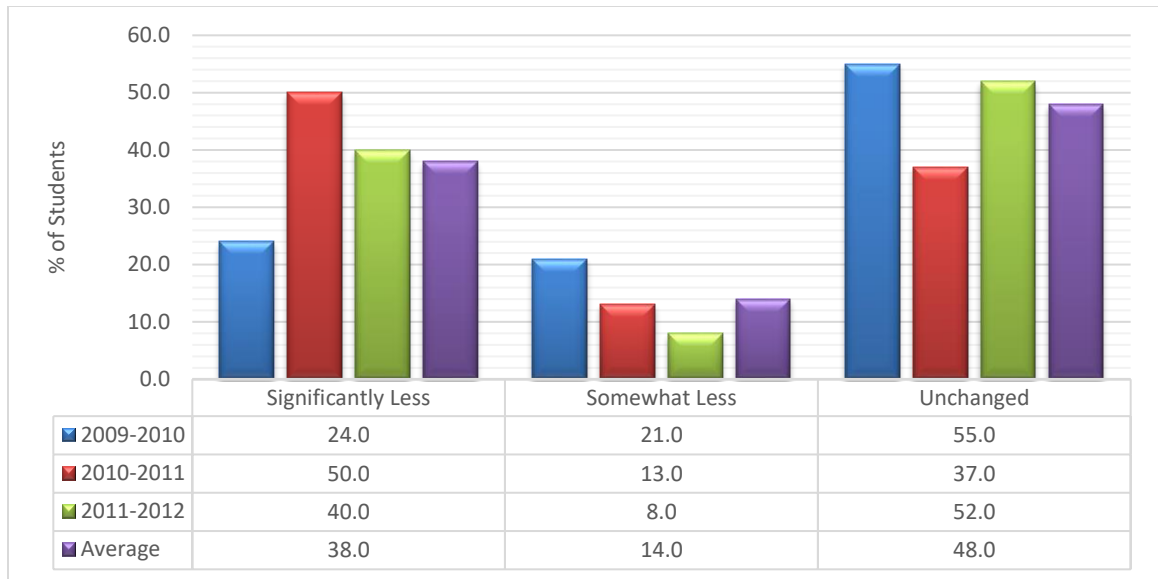
*Figure 27.* 2009–2012 rate of change in SESBI–R™ Teacher Rating Scale–Severity. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

have shown teachers support SWPBS programs for emotional and behavioural modification. The results of the SESBI–R™ Teacher Behaviour Rating Scale–Severity are congruent with recent research on the efficacy of similar tiered programs (Bradshaw

et al., 2015; Chapman et al., 2013; Gresham, 2004; C. Torres, Farley, & Cook, 2012; Wang et al., 2013; Webster-Stratton, 2015; Wong et al., 2015).

**5.5.4 SESBI-R™ Teacher Behaviour Rating Scale–Problem.** For the SESBI-R™ Teacher Behavior Rating Scale–Problem I hypothesized that the degree of students’ behaviour problems would improve after participation in the B.E.S.T. Program. Figure 28 shows the 2009–2010 results in which teachers rated 24.0% of students as having significantly fewer behaviour problems, 21.0% of students as having somewhat fewer problems, and 55.0% unchanged. In 2010–2011, teachers rated 50.0% of students as having significantly fewer behaviour problems, 13.0% of students were reported as having somewhat fewer behaviour problems, and 37.0% of students’ behaviours were unchanged. In 2011–2012, teachers rated 40.0% of students as having significantly fewer behaviour problems, 8.0% of students were reported as having somewhat fewer problems, and 52.0% of students’ behaviours were unchanged. The 2009–2012 results show teachers rated on average 38.0% of students as having significantly fewer problems, 14.0% as having somewhat fewer, and 48.0% as showing no change. Figure 28 shows an average of 52.0% of children had fewer behavioural problems. A *p* value of .00001 indicated there was a significant relationship between less problems and participation in the B.E.S.T. Program ( $p < .05$ ).

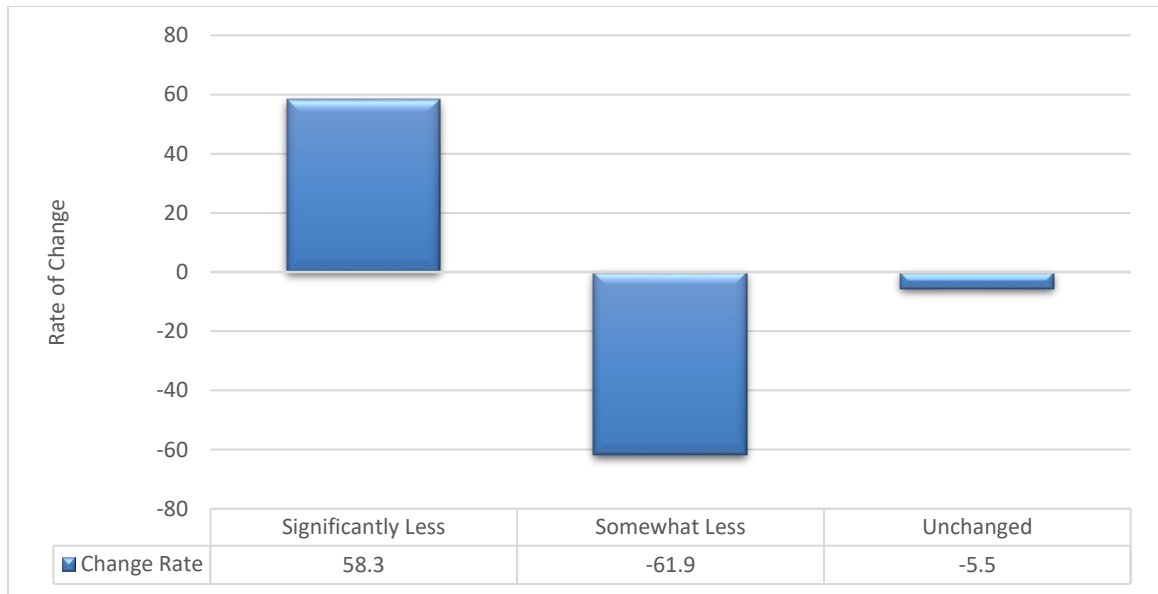
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*Figure 28.* 2009–2012 SESBI–R™ Teacher Rating Scale–Problem. Percentage of students in 2009–2012 whose teachers’ post-entry rating scale scores indicated their behaviour was significantly less problematic versus somewhat less problematic or remained unchanged. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

Figure 29 demonstrates there exists a positive change rate of +58.3 in students showing significantly less problems, a negative change rate of -61.9 for students showing somewhat less problems, and a negative change rate of -5.5 for students showing no change during this time period. The rate of change describes how problem changes in relation to time. The results support my hypotheses that teachers would see a highly significant correlation in participation and overall reduction in problems post-clinical intervention in the B.E.S.T. Program.

## Emotional Behavioural Supports for Children



*Figure 29.* 2009–2012 rate of change in SESBI–R™ Teacher Rating Scale–Problem. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

In recent years, RCTs of SWPBS programs have promoted prosocial behavioural management and revealed the diverse experiences of educators in their attempts to support children with EBD. Researchers have highlighted the importance of teacher involvement in children’s motivations to change, enhancing social skills, and the promotion of wellbeing (Seifert, 2004). The results of analysis of the SESBI–R™ Teacher Behaviour Rating Scale–Problem are consistent with reviewed studies of teachers’ experiences with the implementation of SWPBS programs; a positive impact on student’s problem emotions and behaviours has been documented (Algozzine & Anderson, 2007; Bradshaw et al., 2010; Geddes, 2006; Lane et al., 2007; McIntosh et al., 2011; Powers, 2012; Stefanou et al., 2004; Tuysuzoglu & Greene, 2015).

## **5.6 2009–2012 Satisfaction Survey Results: Parents and Teachers**

The CCRSB 2009–2012 surveys were designed to provide an indication of parents’ and teachers’ perceptions of the impact of the B.E.S.T. Program on student academic performance, self-esteem, confidence, pro-social behaviour, and disruptive behaviour, as well as the effectiveness of the B.E.S.T. staff and the B.E.S.T. Program. It is believed that these results represent the degree of satisfaction parents have with the B.E.S.T. Program as a whole. Although an average rating of 4 or higher on a survey item is considered a clear indication of agreement and, therefore, a high level of satisfaction, values between 3.5 and 4 on a survey item are considered an indication of satisfaction.

**5.6.1 Satisfaction survey results: Parents.** Ratings were provided on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A rating of 2 = disagree, 3 = not sure, and 4 = agree (Jones, 2010, 2011, 2012). The Items are as follows:

Item 1: “Information about B.E.S.T. Program was clearly presented.”

Item 2: “Information on child development helped me understand my child.”

Item 3: “Improved my understanding of how to respond to my child’s behaviour.”

Item 4: “The B.E.S.T. staff providing information on parenting was knowledgeable.”

Item 5: “The B.E.S.T. Program helped me meet my needs as a parent.”

Item 6: “The B.E.S.T. Program helped meet my child’s needs.”

Item 7: “B.E.S.T. Program helped meet the needs of my family as a whole.”

Item 8: “I would recommend the B.E.S.T. Program to other parents.”

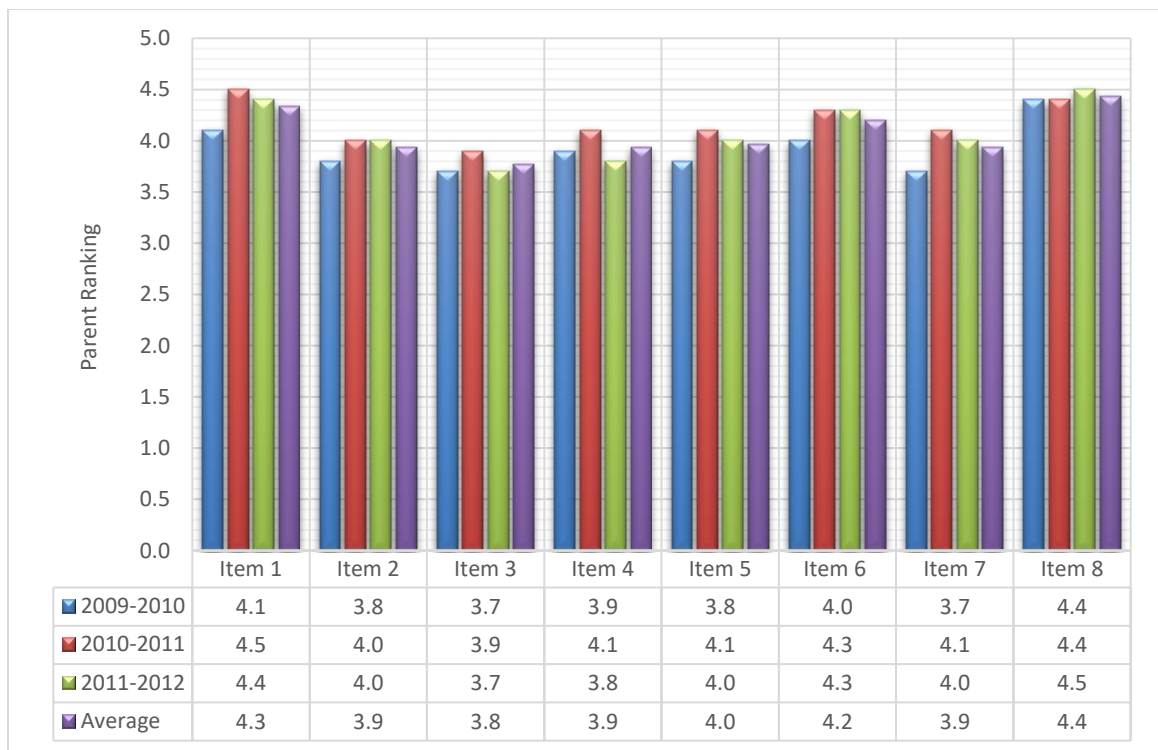
## Emotional Behavioural Supports for Children

As indicated in Figure 30, the data from the parent surveys shows that Item 8, “I would recommend the B.E.S.T. Program to other parents,” received the highest ranking, with results from 2009 of 4.4/5, 2010 of 4.4/5, and 2011 of 4.5/5 with an average of 4.4/5. It is important to note that Item 1, “Information about B.E.S.T. Program was clearly presented,” received the next highest rankings with results in 2009 of 4.1/5, 2010 of 4.5/5, and 2011 of 4.4/5 with an average of 4.3/5. Both items indicate that parents were supportive of the B.E.S.T. Program and felt participation was having an impact on their children’s overall development. Parents appeared less certain that the B.E.S.T. Program model had an impact on parenting skill sets, education pertaining to their children’s behaviours, and family functioning. A contributing factor of this result could be only 4.7% of B.E.S.T. interventions focused on parent training. This is indicated by their responses to Items 2, 3, 4, and 7. Item 3, “Improved my understanding of how to respond to my child’s behaviour,” received the lowest rankings, with results in 2009 of 3.7/5, 2010 of 3.9/5, and 2011 of 3.7/5 with an average of 3.8/5. Both Items 2 and 4 received the second lowest rankings. Item 2, “Information on child development helped me understand my child,” received 3.8/5 in 2009, 4.0/5 in 2010, and 4.0/5 in 2011 with an average of 3.9/5. Item 4, “The B.E.S.T. staff providing information on parenting was knowledgeable,” received results in 2009 of 3.9/5, 2010 of 4.1/5, and 2011 of 3.8/5 with an average of 3.9/5. Item 7, “B.E.S.T. Program helped meet the needs of my family as a whole,” received rankings with results in 2009 of 3.7/5, 2010 of 4.1 5, and 2011 of 4.0/5 with an average of 3.9/5. The responses to Items 2, 3, 4, and 7 indicate parents would benefit from an improved model of B.E.S.T. communication that shares individual



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student programming and progress on a regular basis and improved parent education about how to understand their children’s behaviour, how to respond to challenging emotions, and ways to meet needs of their families. Parents satisfaction with the program may have been attributed to perceptions of children’s improved behaviour because 19.3% of all B.E.S.T. interventions included skills training. The overall results support my hypothesis that parents would indicate a high level of satisfaction with the B.E.S.T. Program.



*Figure 30. 2009–2012 Parent Satisfaction Surveys. Parent ratings of key areas of potential impact by the B.E.S.T. Program, of B.E.S.T. staff communication and support, and of the program as a whole. Rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.*

**5.6.2 Satisfaction survey results: Teachers.** Ratings were provided on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). A rating of 2 = disagree, 3 = not sure, and 4 = agree. The Items are as follows:

Item 1: “Increase in student assignment productivity during participation in the B.E.S.T. Program.”

Item 2: “Improvement in student assignment quality during participation in the B.E.S.T. Program.”

Item 3: “Increase in student self-esteem and confidence during time in B.E.S.T. Program.”

Item 4: “Increase in student pro-social behaviour during time in the B.E.S.T. Program.”

Item 5: “Decrease in student inappropriate behaviour during time in the B.E.S.T. Program.”

Item 6: “Communication with B.E.S.T. staff was clear and effective.”

Item 7: “B.E.S.T. staff was supportive.”

Item 8: “I would recommend the B.E.S.T. Program for appropriate students.”

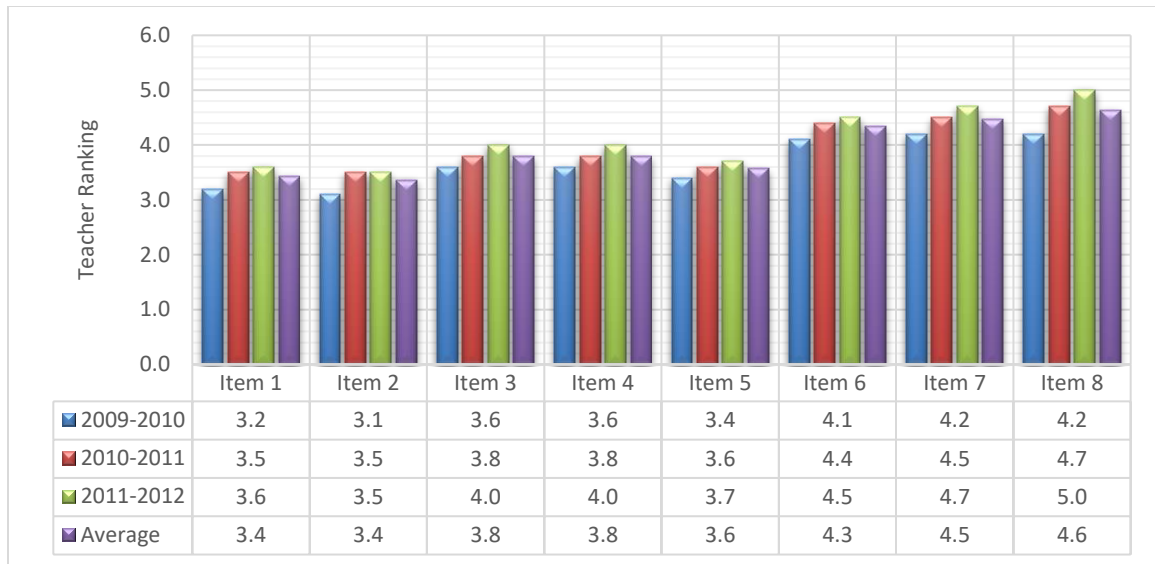
Teachers’ responses to Item 1, “Increase in student assignment productivity during participation in the B.E.S.T. Program,” in 2009 were 3.2/5, 3.5/5 in 2010, and 3.6/5 in 2011 with an average of 3.4/5. Item 2, “Improvement in student assignment quality during participation in the B.E.S.T. Program,” was ranked 3.1/5 by teachers in 2009, 3.5/5 in 2010, and 3.5/5 in 2011 with an average of 3.4/5 (Jones, 2010, 2011,

2012). The results in Figure 31 suggest teachers are less certain that the B.E.S.T. Program model has an impact on participating students' academic performance.

Teacher's responses to Item 3, "Increase in student self-esteem and confidence during time in B.E.S.T. Program," ranked 3.6/5 in 2009, 3.8/5 in 2010, and 4.0/5 in 2011 with an average of 3.8/5. Item 4, "Increase in student pro-social behaviour during time in the B.E.S.T. Program," was ranked 3.6/5 in 2009, 3.8/5 in 2010, and 4.0/5 in 2011 with an average of 3.8/5. Item 5, "Decrease in student inappropriate behaviour during time in the B.E.S.T. Program," was ranked 3.4/5 in 2009, 3.6/5 in 2010, and 3.7/5 in 2011 with an average of 3.6/5. The data suggests teachers are less certain that the B.E.S.T. Program model has an impact on participating students' motivation and changes in pro-social behaviour.

Figure 31 shows Item 8, "I would recommend the B.E.S.T. Program for appropriate students," in the teacher satisfaction surveys as the highest indicator of satisfaction with results from 2009 of 4.2/5, 2010 of 4.7/5, and 2011 of 5.0/5 with an average of 4.6/5. The overall results support my hypothesis that teachers would indicate a high level of satisfaction with the B.E.S.T. Program. Possible reasons for teacher's recommending the B.E.S.T. Program for appropriate students may include the effective communication with support staff, and positive perceptions as student's behaviours improved on the SESBI-R™.

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*Figure 31.* 2009–2012 teacher satisfaction surveys. Teacher ratings of key areas of potential impact by the B.E.S.T. Program, of B.E.S.T. staff communication and support, and of the program as a whole. Rated on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

In summary, a review of B.E.S.T. data demonstrates that 2009–2010 was the most challenging year for children, families, and staff. Both the ECBI™ Parent Rating Scale and the SESBI–R™ Teacher Rating Scale indicate below average ratings and the lowest scores during the 2009–2012 timeframe. The CCRSB would benefit from greater analysis of the variables that may have affected this result and take actionable steps to support children and staff with detailed responses. The ECBI™ Parent Rating Scale and the SESBI–R™ Teacher Rating Scale demonstrated 33.0% of parents and 29% of teachers rated children’s behaviours unchanged in severity over the 3-year period (see Figure 22 and 26). Parents and teachers rated 55% of children’s unchanged in problem (see Figure 24 and 28). 36.3% of parents and 48% of teachers reported extent of frequency of children’s behaviours were unchanged following B.E.S.T. (see Figure 26).

While both parents and teachers would recommend B.E.S.T., and were pleased with B.E.S.T. staff's effective communication, they were uncertain of the programs impact on academic achievement.

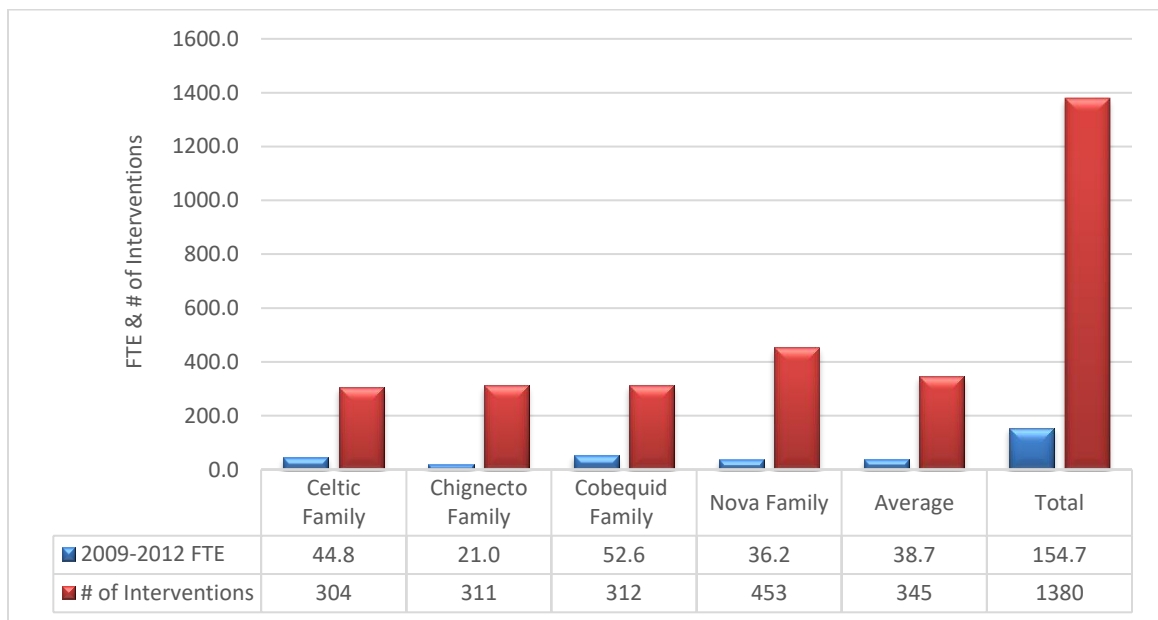
### **5.7 School Profile Indicators**

It is important for the CCRSB to consider school profile indicators when allocating B.E.S.T. resources specific to projected interventions, early identification of pre-primary students, and staff feedback. Figure 32 shows during 2009–2012 Celtic Family of Schools had an average of 44.8 Full Time Equivalent (FTE), and 304 student or parent interventions. The Chignecto Family of Schools had an average of 21.0 FTE and 311 student or parent interventions. The Cobequid Family of schools had an average 52.6 FTE and 312 student or parent interventions. The Nova Family of Schools had an average 36.2 FTE and 453 student or parent interventions. Each Family of Schools was allocated 0.4 FTE B.E.S.T. educators in 2009–2012. Trends in FTE allocation in 2009–2012 are consistent with minor fluctuations in teacher assignments by site. Allocation of B.E.S.T. FTE educators was the same each year at each school site. The number of interventions within the Celtic, Chignecto, and Cobequid Families of Schools remained at a consistent level over 3-years (see Figures 11 & 12). The data demonstrates the overall number of interventions in the Nova Family of Schools was higher. The variations in overall Nova Scotia Teacher Union FTE at each of the school sites does not reflect the increased or decreased number of student interventions.

Figure 32 demonstrates the B.E.S.T. schools had a total of 154.7 FTE teachers between 2009–2012. The average number of teachers was 38.7, and 0.4 FTE B.E.S.T.

## Emotional Behavioural Supports for Children

educators. The average number of interventions per family of schools was 345.0. As demonstrated in Figures 1–8, the student population between the school sites varied greatly, as did access to specialists and regional resources such as mental health. The schools that participated in the B.E.S.T. Program all differ with respect to student population, urban or rural settings, teacher and support staff allocation, and access to school-based resources (e.g., specialist teachers, speech language pathology, autism support). Schools in close proximity to urban centers (e.g., the Nova Family) within the B.E.S.T. Program have greater access to community based mental health support (e.g., regional and provincial hospitals, mental health clinics) for children versus the school sites located in rural Northern Nova Scotia (e.g., Chignecto, Cobequid, Celtic Families of Schools).



*Figure 32.* 2009–2012 Family of Schools FTE, number of interventions, and B.E.S.T. educator allocation. Displayed by school site and total B.E.S.T. student behavioural infractions. Adapted from “BEST Program Annual Report,” by D. Jones, 2010, 2011, 2012. Copyright 2010, 2011, 2012 by CCRSB.

## Chapter 6. Discussion

There is no consensus in the research literature about best practices for decreasing the severity and frequency of EBD in children, but early intervention within school settings by professionals offers significant positive outcomes (Briesch & Chafouleas, 2009; Chafouleas, Riley-Tillman, & Sassu, 2006; Cook et al., 2008; Gresham, 2002, 2015b; Hawken, MacLeod, & Rawlings, 2007; Kern, 2015; Solomon et al., 2012). The purpose of my study was twofold. The first aim was to determine if children provided with Tier 2 and 3 clinical interventions demonstrated improvements in school-based conduct. In particular, I anticipated/predicted higher levels of appropriate emotional and behavioural outcomes and lower levels of dysfunctional incidents would result from intervention.

The second aim was to analyze limitations of the research. This included problems with data-gathering approaches (e.g., yearly program evaluations, clinical evaluations, student input). There is a need for greater longitudinal and qualitative research from a sociological perspective that involves all stakeholders. Implications for B.E.S.T. school staff and the CCRSB are discussed. Areas of future study consist of academic achievement, the role of educators/parents/peers, genetics, evidence-based practices, physical health implications of the results of the ECBI™ and SESBI-R™ rating scales, attrition rates, preventative measures, and funding implications.

## 6.1 Hypotheses

**H1.** Children with emotional behavioural disorders (EBD) participating in the B.E.S.T. Program will demonstrate a decrease in conduct problems (severity and problem) after clinical intervention as compared to pre-intervention data.

The results of the study suggest clinical interventions for Tier 2 and 3 students had a significant impact on decreasing dysfunctional behaviours. As reviewed in the data tracking results, the data demonstrated that 83.9% ( $n = 319$ ) of all B.E.S.T. participants showed a decrease in school rule infractions. Parents and teachers rating scales in addition to satisfaction survey data confirm the widely held belief of both parents and teachers that children make positive improvements in the severity and frequency of problem behaviours from participation in intervention programs. B.E.S.T. students experienced a greater average decrease (36%) in student rule infractions in all three markers in comparison to 5.5% decrease of the control group. The control group demonstrated less dramatic changes in overall behaviour likely due to the lack of significant problems in Tier 1 students at the start of the study. These results concur with those of applicable research reviewed for this study that highlighted improvements in students' conduct during and after intervention with SWPBS programs (Bradshaw et al., 2008; Bradshaw, Mitchell, & Leaf, 2010; Bradshaw et al., 2012; Caldarella et al., 2011; Horner et al., 2009; Luiselli et al., 2002). Various authors reported that responding to emotional and behaviour problems can be undertaken in the context of a comprehensive tiered system designed to address barriers to learning and engage children in classroom learning. In this respect, the developmental trend in thinking about how to respond to



children with EBD must be toward practices that embrace an expanded view of engagement and motivation and that include a focus on prosocial and emotional learning (Adelman & Taylor, 2015; M. S. Watson, 2016).

Motivation and engagement are critical in order for children to participate in any given activity. Motivational theory has guided the development of interventions for children with EBD. These include FBAs (Barnes et al., 2014), positive behaviour reinforcement (Fitzpatrick & Knowlton, 2009), social skills training and peer assistance (Farley et al., 2012; Wong et al., 2015), parent training (Pears et al., 2015), coping skills and behaviour self-control (Sukhodolsky et al., 2015; Webster-Stratton, 2015), and problem-solving training (Finlon et al., 2015). These interventions are designed to enhance children's motivation, foster positive attachments, and counter detachment from learning. The results of my study and the reviewed literature demonstrate the effects resulting from interventions tend to be greatest for the highest-risk children in early elementary school (Barnes et al., 2014; Climie, 2015; McIntosh et al., 2011; E. A. Skinner & Pitzer, 2012; Sutherland et al., 2013).

As mentioned in Chapter 2, the Nova Scotia government has studied the lack of emotional and behavioural supports for children with EBD (Kutcher & McLuckie, 2013; Leblanc et al., 2013; Nova Scotia Department of Community Services, 1999; Nunn, 2006). The authors demonstrated that changes are needed in the treatment of EBD in children and in effective intervention strategies delivered within a system-wide approach to care. The results of my study demonstrated successful outcomes for students

participating in a SWPBS program implemented within the CCRSB, while providing much-needed research in a provincial and national context.

**H2.** Clinical staff, teachers, and parents will report an increase in positive behavioural outcomes after clinical intervention as compared to pre-intervention data.

Parents and teachers of students participating in the B.E.S.T. Program were asked by intervention teams at each school site in 2009–2012 to provide data in the form of rating student behaviour prior to entry into the clinical component and then at the end of each academic year. Recent randomized effective trials of the P.B.I.S., the Good Behaviour Game, P.A.T.H.S., Raising Healthy Children, the Fast Track Program, and the Incredible Years® Programs have demonstrated parental involvement in data gathering is significant in implementing effective interventions for children with EBD (Bradshaw, 2015; Catalano et al., 2003; Dodge et al., 2015; Domitrovich et al., 2007; Embry, 2002; Flannery et al., 2003). I was surprised that the data revealed parent training and FBAs were among the least utilized interventions in parent training, constituting only 4.7% of interventions provided the B.E.S.T. Program. This finding is contrary to successful trends in recent research (Figure 9).

In the area of ECBI™ Parent Behaviour Rating Scale–Severity and –Problem it was hypothesized the students’ conduct would improve after participation in the B.E.S.T. Program. This parent rating scale is used to assess both the frequency of child disruptive behaviours and the extent to which the parent finds the child’s behaviours troublesome. As displayed in Figure 22, parents generally indicated a reduction in severity; 53.7% of

parents reported fewer behavioural problems. The problem scale was used to assess the frequency with which the child displayed improvement in the behaviours. Recent research has indicated parents have found their children's involvement in SWPBS programs such as the B.E.S.T. program effectively reduced emotional and conduct problems (C. M. Anderson & Borgmeier, 2010; Brooks, 2005; Collins et al., 2000; Crosby & Perkins, 2004; Kaminski et al., 2008; Loman & Horner, 2014; Pears et al., 2015). The results of my study which reveal that 62% of parents found some major–minor improvement in their children's behaviour are significant and highlight the importance of parental engagement and quality feedback regarding treatment and intervention strategies as part of a positive caring environment that works to decrease symptoms of EBD. Parents play multiple roles in empirically supported therapies (e.g., CBT, DBT, family therapy), interventions, motivation to change, attachment, reinforcement, and monitoring.

With respect to the ECBI™ Parent Behaviour Rating Scale–Problem, I hypothesized the students' conduct would improve after participation in the B.E.S.T. Program. The results, as displayed in Figure 24, indicated that 53.7% of parents noticed fewer behavioural problems. The overall results supported the hypothesis that a reduction in overall behavioural problems would result from post-clinical intervention. It is natural to assume that parental involvement in empirically supported interventions (e.g., positive reinforcement, social skills training, problem solving, anger management) while participating in the B.E.S.T. Program had an impact on students' outcomes. Parents and children involved in therapies designed to improve the parent–child

relationship have found reductions in the severity of internalizing and externalizing behaviours, not only during the interventions but years later as well (Chacko et al., 2015; Diamond & Josephson, 2005; Fristad et al., 2003; Hogue et al., 2015; Pears et al., 2015; Stefanou et al., 2004; Szapocznik et al., 2015). Within the B.E.S.T. Program, parents and caregivers are involved in universal, individual, and tertiary supports. As demonstrated, parental involvement can occur at home, in the community, and at school. Reviewed literature indicated when parents are trained and participate in empirically supported therapy and interventions, children showed improvement with internalizing/externalizing disorders while shifting toward more normative behaviours. Furthermore, parent training on positive parenting styles was effective in reducing internalizing and externalizing symptoms (Robbins, Bachrach, & Szapocznik, 2002; Baughman Sladky et al., 2015; Bearss et al., 2015; J. Cohen et al., 2006; Herbert et al., 2013; Pears et al., 2015).

The SESBI-R™ Teacher Behaviour Rating Scale–Severity and –Problem were used to test the hypothesis that the students’ conduct would improve after participation in the B.E.S.T. Program. The results, as demonstrated in Figures 26 and 28, indicated a reduction in severity and problems for children who participated in B.E.S.T.; 71% of teachers noting some improvement in children’s behaviour. It is important for teachers to be engaged in the ongoing assessment of children’s behavioural outcomes to create classroom environments that work to aid children with EBD in prosocial behaviours. The application of effective treatment, attachment, and reinforcement theory has shown that children with EBD will respond better to classroom environments in which stakeholders have a vested interest (Adelman & Taylor, 2015; Breeman et al., 2015; Chatzipanteli et

al., 2016; Linnenbrink & Pintrich, 2003; R. M. Ryan et al., 2011; Seifert, 2004; Stefanou et al., 2004; Vansteenkiste et al., 2009; M. S. Watson, 2016). High expectations that teachers and support professionals have for students can be felt by learners. If meaningful meta-cognitive experiences and education are to occur for children with EBD, it is essential that stakeholders to participate in data-based decision making with the knowledge and skills necessary to foster an emotionally safe and secure classroom. Informational feedback helps the B.E.S.T. Program team understand why children performed well or failed and can be used diagnostically to improve future performance.

Although the results of the ECBI™ and SESBI-R™ shown in Figures 22–29 highlight a positive rate of change in severity and frequency of problem behaviours, closer analysis reveals that parents and caregivers reported a significant number of students' problem behaviours remained unchanged. For example, 33% of parents and 29% of teachers rated severity of behaviours as unchanged (Figures 22 & 26). These trends are important to examine in an effort to provide support services to all children participating in the program who are not achieving successful outcomes. As discussed, it may be appropriate to expand therapeutic services and interventions to this group of students. As demonstrated in recent research studies, sometimes greater interagency cooperation and more complex levels of tertiary care with the cooperation of community and medical resources are necessary (C. M. Anderson & Borgmeier, 2010; Espelage et al., 2013; Loman & Horner, 2014; Scott & Alter, 2017; VanDenBerg et al., 2009).

The parents' and teachers' satisfaction surveys yielded scores between 3.5 and 4 on both surveys, which can be considered an indication of parents' and teachers'

satisfaction with the B.E.S.T. Program. Although an average rating of 4 or higher on a survey item is considered a clear indication of agreement and, therefore, a high level of satisfaction, values between 3.5 and 4 on a survey item are also considered an indication of satisfaction. The results suggest the B.E.S.T. Program reduced the number of dysfunctional emotional behavioural issues that parents and teachers reported. Other research has indicated that parent involvement, training, and family therapy are among the most effective interventions available for reducing conduct problems in elementary aged children (Guo et al., 2003; Kaminski et al., 2008; Kazdin, 2010; Sattler & Hoge, 2006; Singh et al., 2010; Webster-Stratton, Reid, & Beauchaine, 2011). The B.E.S.T. Program is a promising approach for early intervention in this population. The overall results support my hypothesis that parents and teachers of children participating in the B.E.S.T. Program would indicate satisfaction, with highest levels of satisfaction regarding presentation of the Program supportive of B.E.S.T. staff communication. Although within satisfaction ranges parents of B.E.S.T. children were less certain of the program's impact on improving their parenting skills (e.g., in understanding and responding to their children's behaviour). Teachers were also somewhat less convinced that B.E.S.T. had improved the quality of student's assignments, self-esteem, and pro-social behaviour.

The results from the ECBI™ Parent Behaviour Rating Scales–Severity and Problem, as well as the SESBI–R™ Teacher Behaviour Rating Scales–Severity and Problem do not provide evidence that would allow conclusions to be drawn regarding whether children's levels of functioning changed due to participation in B.E.S.T.,

development, greater maturity, or a combination of related factors (e.g., socioemotional, cognitive, biological, legal, cultural, religious, age) due to a lack of student-specific data. The data demonstrated parents and teachers were unsure if the program met its objective of enhanced academic achievement for participating students. The data collected do not allow a determination of whether or not the same children are continuing to improve.

**H3.** Age, gender, and comprehensiveness of intervention will have an impact on improvement in measured outcomes.

Analysis of student profile data is important to enable stakeholders to guide instruction, allocate resources, and improve overall efficiencies in the delivery of accessible and effective school-based supports. The results illustrated the Nova Family of Schools experienced significant changes in enrollment and services provided to children. It is important for the CCRSB to examine the distribution of resources to B.E.S.T. schools to better address fluctuations in needs. An important question in the study concerned the grade level at which the largest numbers of students participated in the B.E.S.T Program. The data in Figures 1–6 shows that in 2009–2012 the majority of students (71%) participating in Tier 2–3 in the B.E.S.T. program were in Grades Primary–3 (5–8 years old), compared with 29% of elementary student participants. This finding is echoed in the works of Kauffman and Landrum (2009a), as well as Landrum (2011), who examined age and grade level when screening for early signs of EBD. The CCRSB would benefit from analysis of Dunlap et al.’s (2006) and Doll and Cummings’ (2008) studies, both of which suggested universal screening instruments need to be

introduced early in children's elementary school experiences to identify students who are at risk.

Despite the results, there is little current empirical evidence to support typical age of onset for EBD in children (Keenan & Wakschlag, 2002; Webster-Stratton, 2015). The typical diagnostic presentations of EBD vary and classifying them respectively is critical to implementing effective programming. It is helpful for stakeholders to be aware that research literature does contain findings of prevalence rates and epidemiology of neurodevelopmental/developmental brain disorders such as ASD (Huerta et al., 2012), ADHD (Friedman & Rapoport, 2015), depression and anxiety (Maughan et al., 2013), in addition to CD/ODD (Guerra et al., 2011). These studies are contradictory with respect to age of onset, offering researchers and the CCRSB future opportunities to conduct longitudinal research of B.E.S.T. students in an attempt to gather both qualitative and quantitative data that may add to the growing body of work in the area of early universal screening and intervention for EBD in children within elementary schools (Donohue, Goodman-Scott, & Betters-Bubon, 2015; Dowdy et al., 2015).

Webster-Stratton (2015) highlighted that there is insufficient empirical evidence to support typical age of onset in children, but there is a wealth of findings surrounding patterns, causes, effects, risk factors, and screening of EBD in children (Friedman & Rapoport, 2015; Guerra et al., 2011; Huerta et al., 2012; Maughan et al., 2013). It is important to note that recent literature indicates approximately 3–6% of children are at risk for emotional behavioural impediments (Kauffman & Landrum, 2009b; Wakschlag et al., 2007). The results are consistent with the Mental Health Commission of Canada



(2012) and Smith et al. (2015), who demonstrated there is a critical window for younger children who have an increased risk for problems when compared to outcomes for students who receive intervention later in life. It is important for educators in the eight B.E.S.T. schools to identify and implement early school-based strategies and proactively take steps to maximize children's potential through early intervention. The data provided by the CCRSB did not allow for analysis of age and level of severity.

The results demonstrated marked gender differences with the majority of students participating in the clinical component being male (75.9%). Many researchers have established this trend in the past two decades (Giedd et al., 2015; Malfitano, 2014; Rosenfield & Mouzon, 2013; Taylor et al., 2009; Zahn-Waxler et al., 2008). The data provided by the CCRSB did not allow for analysis of gender with respect to level of severity. The results from my study are similar to findings of Anderson et al. (2010), Corkum et al. (2010), and Capella, Jackson, Bilal, Hamre, and Carles (2011) with respect to the ratio of male versus female children enrolled in SWPBS programs.

When reviewing the topic of gender applied to children with EBD it is important to examine biological, social, and cultural factors as well as to understand the reasons behind the trend in gender. Differing gender roles, different brain structure, maturation at different ages and rates, and sex differences can lead to different mental disorders depending on whether or not an individual is male or female. Connell et al. (2008) stated that emotional and behavioural dysfunction can remain stable, become worse, improve, or develop differential problems. Stakeholders need to remain cognizant of gender-specific disorders that tend to have higher prevalence in males (ADHD, CD, ODD), as

well as aggression (Fergusson et al., 2010; Osler & Vincent, 2003; E. H. Rice & Yen, 2010; Taylor et al., 2009; U.S. Department of Education, 2005). As previously discussed, males and children from racial and cultural minority backgrounds are significantly over-represented in EBD programs (Taylor et al., 2009).

The reviewed literature and the results of my study demonstrate the effectiveness of comprehensive interventions such as CBT, DBT, and family therapy in the treatment of children with EBD. The importance of including universal, individual, group, and family oriented sessions in various models has been documented (Barnes et al., 2014; Catalano et al., 2003; Embry, 2002; Lane, 2007; Sutherland et al., 2013; Vos et al., 2015). The results of my study are consistent with systematic reviews and meta-analyses that recommended EBD programs should be whole-school, multicomponent programs. The CCRSB should review the components of empirically supported programs such as PBIS, Second Step, the Good Behaviour Game, Raising Healthy Children, PATHS®, the Fast Track Program, and the Incredible Years® Program that combine elements of universal and targeted strategies (de la Cruz et al., 2015; Vos et al., 2015; Waxmonsky et al., 2016).

Linehan et al. (2006), Chorpita, Bernstein, and Daleiden (2011), and Utterberg (2016) suggested that evidence-based therapeutic interventions and classroom models need to work collaboratively with children whereby they mutually agree on the focus, goals, directions, and pace of programming. These treatments use each modality to target specific aspects of children's problems. One key aspect of psychological treatments may be the comprehensiveness and structure of the treatments (Chorpita, Bernstein, &

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Daleiden, 2011; Fitzpatrick & Knowlton, 2009; Johnson, 2016; Kauffman, 2015; Khoury et al., 2013; P. C. McCabe & Shaw, 2010; Schunk & Mullen, 2012). Comprehensive interventions have included clearly established school-based interventions (e.g., FBAs, positive reinforcement, social skills, peer-assistance parent education, coping and problem-solving skills) to enhance children's outcomes.

Chorpita, Bernstein, and Daleiden (2011) noted the importance of closely tracking treatment strategies with respect to children's personal developmental and environmental backgrounds or needs. In an interagency approach, stakeholders should emphasize analysis of individual circumstances to best develop and implement a child-centered therapeutic approach within an interagency model (home, school, community, medical). The significance of long-term school-based interventions in partnership with interagency cooperation for children with EBD has been reviewed (Government of Nova Scotia, 2016; Lewis et al., 2015; McIntosh et al., 2011; Powers, 2012). As noted, my study represents the only empirical review of school-based tiered support for students in Nova Scotia, and the second review within a national context.

It would be important for the CCRSB to monitor children participating in the B.E.S.T. Program interventions and evaluate changes in student participation trends in clinical Tier 2–3 interventions over time and specific to individual schools to determine resource allocation based on areas of need within the Family of Schools. It is important to know gender, age, and severity specifics, as well as the comprehensiveness of interventions for program development. Implications for developing pre-primary information-gathering protocols with caregivers, daycares, and child mental health teams

require consideration. In addition, community based resources could be used to identify children at risk for EBD before beginning school. This component of the data has far-reaching implications for school-wide programming with regard to curriculum, in-class levels of disruption, overall student achievement, and allocation of human resources to service children in need of emotional and behavioural supports. My study begins to close the gaps in research on tiered EBD programs for primary and elementary students and represents a first time examination of programming that can be applied to Nova Scotian and Canadian schools.

### **6.2 Recommendations to the CCRSB Based on Findings**

The results of this study provide an additional and much-needed entry point into school-based mental health and behavioural support services for children, families, and school staff. Key findings in the reviewed literature and my data provide insight into current programming, essential elements, student population participation rates, resource allocation, as well as examples of services provided and implementation rates. Areas identified as challenging include the recruitment and training of qualified staff, implementation of empirically proven clinical interventions, delays in resource allocation, and perceived silos in service delivery and implementation of change.

This study provides sufficient research evidence in the area of emotional behavioural supports in the B.E.S.T. schools to inform policy and the direction of practice in the CCRSB. Taken together with the findings from the reviewed literature, the results of my study illuminate the following needs.

**6.2.1 Tiered EBD programs.** Developing, evidencing, and implementing effective multidimensional emotional-behavioural-based interventions requires researchers, administrators, educators, and others to make this a top priority. A large base of empirical literature supports the implementation of tiered, universal, individual, and tertiary supports for all children within elementary schools (Horner & Sugai, 2015; Jiménez-Barbero et al., 2016; Kelm et al., 2014; Turnbull & Turnbull, 2001). The results of my study demonstrate robust evidence that can be directly linked to tiered interventions and parental support for children with EBD. The CCRSB should continue to develop tiered, school-wide EBD programming while working to incorporate wraparound services and a continued interagency support model.

**6.2.2 Interagency support model.** It is significant to note that an average of 16.1% ( $n = 20.3$ ) of students in the B.E.S.T. Program between 2009–2012 did not have any decrease in any of the markers (Figure 13). It may be appropriate for stakeholders within the CCRSB to review contemporary research by Bronstein, Anderson, Terwilliger, and Sager (2012) and Deloach et al. (2012) to investigate possible modifications to B.E.S.T. Program implementation. The need for integrated collaboration is reflected in the recommendation included in “Our Kids are Worth It: Strategy for Children and Youth” (Government of Nova Scotia, 2007), “Come Together: Report and Recommendations of the Mental Health and Addictions Strategies Advisory Committee” (Government of Nova Scotia, 2012a), “Together We Can: The Plan to Improve Mental Health and Addictions Care for Nova Scotians” (Government of Nova Scotia, 2012b), and “Terms of Reference: Independent Review of Policies and Practices that Impact

Youth Living with Mental Health and Addictions Issues” (Government of Nova Scotia, 2013). The importance of involving the medical community in the holistic care of children with EBD cannot be understated. The continued integration of medical professionals within a care team is essential to meet the various needs of individual children and their families. These researchers suggested that at times it may be necessary to add a greater level of intervention by increasing the participation of outside agencies and medical resources to support students, families, and schools. Tertiary prevention focuses on reducing the number of existing cases of complex, long-standing behaviour problems displayed by students who are at high risk for significant emotional and behavioural failure (Deloach et al., 2012). Out-of-school supports are essential for children in Tier 3 who display dysfunctional behaviour patterns in the school and in the community. Successful interventions involve out-of-school supports that are comprehensive, initiated early, utilized over the long term, and involve parents, teachers, peers, and siblings (Bronstein et al., 2012).

**6.2.3 Environmental analysis.** Kutcher and McLuckie (2013) suggested that due to the serious nature of EBD and its negative relationship to students’ success in school, it is critical for professionals to gain knowledge of successful models of integrated therapeutic treatments. The literature reviewed indicated that stakeholders need to be cognizant of the unique environmental context of each school site when creating supportive, integrated EBD programming for children (Clarfield & Stoner, 2005; Rothwell & Kazanas, 2004; Sugai et al., 2000). Leblanc et al. (2013) suggested an important factor in determining the success of EBD programs was the analysis of each

school's needs in the instructional design process. They cautioned that by focusing exclusively on statistical relationships important quantitative or descriptive data may be overlooked.

**6.2.4 Empirically supported practice.** There is a need for more focused adoption and application of evidence-based therapies (CBT, DBT, family therapy), interventions (FBAs, positive behaviour reinforcement, social skills training and peer assistance, parent training, coping and behaviour skills, self-control, problem-solving training), and motivational theory (self-efficacy, attribution theory, self-worth theory, achievement goal theory, attachment theory, meta-cognition) within the B.E.S.T. Program. Data from both efficacy and effectiveness studies are key to a full understanding of the potential impact of treatment and intervention options for children with EBD. Rounsaville, Carroll, and Onken (2001) suggested once a treatment or intervention has been shown to be efficacious through multiple replications, the next step is to determine how well the treatment works in typical clinical practice. Although many different mental health disorders are addressed by the B.E.S.T. programming (as reviewed in the Chapter 1), no data has been collected to speak to the efficacy of particular therapies or interventions for specific disorders. High quality treatment research has revealed evidence indicating that psychological interventions for children can provide substantial improvements in functioning for those suffering from EBD (Hunsley, Elliott, & Therrien, 2013). This is an important next step in the research process and should begin with a review of Chorpita, Bernstein, and Daleiden (2011), who

suggested reconsidering diverse, inclusive psychological treatments for children with EBD.

**6.2.5 Early and universal screening.** The CCRSB and Canadian public school systems in partnership with the board, the Nova Scotia Department of Early Childhood Development, multi-regional mental health clinics, and public health agencies should organize universal screening of pre-primary students to help minimize this data gap. Greater analysis and discussion with parents and caregivers are needed to allow insight into additional individual components that can be adapted to B.E.S.T. programming to improve early detection. Universal screening is a critical prerequisite to providing timely school-based prevention and intervention services for students at risk for academic, behavioural, or emotional difficulties (Glover & Albers, 2007; Oakes, Lane, & Ennis, 2016; Senate of Canada, 2006). Early interventions aiming towards positive trajectories can lead to child resiliency increasing adaptation skills (Essex et al., 2006).

**6.2.6 Gender.** Stakeholders should explore additional ways of identifying females with EBD who need services. This may require having children, rather than teachers, complete screening measures in order to reveal issues that are not readily apparent to adults. Involving children and parents in the screening process would certainly bolster the probability of identifying at-risk students; however, it also increases the resources required to complete the process (Stewart, Nyman, & Anderson, 2012). Additional research might look at the ways females and males respond to the same types of instruments to test the validity of using these instruments at large. In doing so, it is hoped that a clear and concise way of identifying students might be developed, increasing



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the number of males identified and giving females a greater chance of receiving services when appropriate (Malfitano, 2014).

**6.2.7 Culture.** There is a need for the CCRSB to develop a culturally responsive pedagogy that consists of caring classroom environments, fairness, behaviour management, social skills instruction, and a long-term commitment. Researchers have demonstrated African Nova Scotian and First Nations students tend to be over-represented within SWBPS programs. Culturally responsive supports for children with EBD is necessary in order to decrease the discipline that is well-documented within schools, especially for minority students (Cartlege, Gardner, & Ford, 2009; Moore & Owens, 2009). Understanding the cultural backgrounds of students is crucial to EBD supports for children. Although unintended, lack of specific knowledge about children`s cultures may result in the incorporation of bias or ethnocentrism into classroom rules and B.E.S.T. school routines (Weinstein, Tomlinson-Clarke, & Curran, 2004). By increasing teachers` cultural understandings, the CCRSB will facilitate invaluable insight into children`s emotional and behavioural outcomes.

**6.2.8 Schools Plus.** The CCRSB should consider a transition to the provincial Schools Plus model for B.E.S.T. in which mental health clinicians use a wellness hub approach to programming. Kutcher (2011) noted that it is increasingly evident that perpetuating a silo approach to mental health services for children does not serve the holistic health needs of youth or their families, and that access to evidence-based care cannot be achieved in the most appropriate manner without the cooperation of schools.

**6.2.9 Data gathering.** Building on current B.E.S.T. Program data-gathering techniques, stakeholders could simply complete an empirically-validated teacher and/or stakeholder report or rating scale for each child. Although a number of possible options exist, a few to consider may include: (a) the Behavioral and Emotional Rating Scale, Second Edition (BERS–2; Epstein & Sharma, 1998); (b) the Achenbach System of Empirically Based Assessment (ASEBA; Achenbach & Rescorla, 2001); (c) the Communities That Care Youth Survey (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002); (d) the School Social Behaviour Scale (SSBS–2; Merrell, 2003); (e) the Strengths and Difficulties Questionnaire (SDQ; Muris, Meesters, & van den Berg, 2003); (f) the Devereux Student Strengths Assessment (DESSA; LeBuffe & Shapiro, 2008); and (g) the Social Skills Improvement System (SSIS; Gresham & Elliott, 2008). Severson, Walker, Hope-Doolittle, Kratochwill, and Gresham (2007) suggested that a teacher reporting process be followed by the completion of norm-referenced rating scales such as the SSIS (Gresham & Elliott, 2008) or the Child Behaviour Checklist (Achenbach, Howell, Quay, Conners, & Bates, 1991).

**6.2.10 Progress monitoring.** A future redesign of the B.E.S.T. data collection method should include information concerning the type of therapeutic strategies used by clinicians as well as more details specific to individual disorders presented by participants. There is a need for the CCRSB to develop a data collection method that allows for qualitative and critical research methodologies to gather a diverse range of stakeholder experiences within the therapeutic process. My study has demonstrated the need for longitudinal data gathering to monitor children who have participated in the

B.E.S.T. Program as they progress to future schools in order to study future outcome measures applicable to the long-term effectiveness of B.E.S.T.

**6.2.11 Data gaps.** Teacher-completed requests for assistance within the program should be analyzed. At present, this data collection is not taking place. Teacher requests for assistance to administration, site-based teams, and/or specialist teachers due to emotional and behavioural dysfunction should be considered an alert to a child's lack of success in universal Tier 1 support. B.E.S.T. schools should develop a 'request for assistance form' to gather information concerning problems, the school setting in which the problem takes place, academic abilities, and supports/interventions implemented to date. As a natural fit to the existing B.E.S.T. Program planning team structure, school teams could review requests for assistance in a timely manner to provide students with available Tier 2–3 interventions and/or to begin FBAs for Tier 3 school or community based supports (Cordingley, Bell, Thomason, & Firth, 2005). It is important that future efforts gather from B.E.S.T. data critical information such as interventions used and success rates when applied to indicated problems, this data was unavailable for my study. Meta-analyses of school-based behavioural interventions demonstrated FBA was the most effective ongoing problem-solving process conducted by an intervention team (Sheridan et al., 2011; Treacy, McLaughlin, Derby, & Schletter, 2012). FBA intervention data should be continually gathered, summarized, and reviewed by the team.

### **6.3 Limitations**

There are several limitations to this study that could be addressed in future research. The analysis of program and student success rates is important to the overall

evaluation of both the program and site-specific clinical components. The lack of empirical research on school-based programs and access to results from only one school board in Nova Scotia makes it difficult to generalize about the B.E.S.T. model. Schools implement many programs designed to prevent or reduce mental health problems, but historically, many of these have not been adequately evaluated (Government of Ontario, 2011). It has been well established that evidence-based practice utilizes a range of criteria to designate school-based mental health programs as useful and/or effective. Donaldson, Christie, and Mark (2009) suggested there is momentum within the field of school-based mental health for children to direct the focus of evaluation to credible and actionable evidence. It would be beneficial to have a formal evaluation of the B.E.S.T. Program by utilizing evidence from this research as well as the grading recommendations, assessment, development, and evaluation (GRADE) approach developed in accordance with international guidelines (Dijkers, 2013). GRADE is widely used and accepted, having been initially developed to help stakeholders choose interventions or therapeutic treatment strategies in healthcare by relying on quality studies (Bayat & Lang, 2015).

The implementation status of the overall Tier 1–3 intervention system within a B.E.S.T. school can be measured via a systems-level tool such as the Individual Student Systems Evaluation Tool (C. S. Anderson, 2004), which is completed by external reviewers; or the Benchmarks for Advanced Tiers (C. S. Anderson et al., 2009), which is completed by the school team. Each instrument would allow the CCRSB to conduct comprehensive assessment of the program, data management, and practices involved in

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Tier 1–3 behaviour supports. In partnership with provincial and regional mental health organizations, as well as the Izaak Walton Killiam Hospital for Children and Dr. John Leblanc at Dalhousie University, the CCRSB should collect more comprehensive data for analysis to re-establish criteria affecting success outcomes.

At present, several compilations of empirically supported, evidence-based mental health programs for children exist. The Government of Ontario (2011) stated the most frequently referenced include the Substance Abuse and Mental Health Services Administration; the Collaborative for Academic, Social and Emotional Learning (CASEL); the U.S. Department of Education (USDOE); the Centre for School Mental Health; and the Centre for the Study and Promotion of Violence. Although the evidence supports the idea that use of school-based interventions is effective in addressing children's mental health and behavioural needs, none reference Canadian mental health programs. The B.E.S.T. Program model can be compared for the obvious similarities to existing, empirically supported programs. The study would be strengthened if comparisons could be made to similar programs based in Nova Scotia or Canadian school jurisdictions with comparable demographics.

Having access to yearly evaluations (clinical staff and program) of the B.E.S.T. Program that included surveys, interviews, focus groups, monthly case management reviews, and progress marker assessments that measured satisfaction and effectiveness would have allowed for greater program analysis. My study lacked student-specific data. It would be appropriate to conduct pre- and post-intervention comparisons of behaviour in individuals participating in the B.E.S.T. Program utilizing parent and teacher rating

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scales for statistically significant behavioural changes. This would allow researchers and the CCRSB an opportunity to analyze exactly the magnitude and standard deviation of participants' changes over time.

One of the greatest challenges in evaluating the B.E.S.T. Program was the lack of longitudinal baseline data necessary to establish key conditions and indicators from which change and process could be assessed. There is a gap in longitudinal data on children with which to track their experience of EBD and the impact EBD has on their lives over the short, medium, and long term. The collection of this type of data could be contextualized by examining children who participated in the B.E.S.T. Programs Tier 2–3 versus a control group of children who only experienced universal Tier 1 support. This data could help stakeholders answer outstanding questions such as which factors are important in determining risk of, and resilience to, EDB.

There is an absence of baseline data on other school sites or same-age children within the board/province of Nova Scotia that would enable a robust assessment of the scale of dysfunction within elementary aged child populations. There is a need for more detailed baseline data to provide a historical point of reference to inform program planning such as target setting, and to monitor and evaluate changes for program implementation and impact assessment of variables including types of interventions (Kern & Wehby, 2014). The rigorous use of baseline data helps set achievable and realistic indicator targets for each level of results in the B.E.S.T. Program design and allows ongoing adjustment of progress towards these targets and their respective results. As a guide, the CCRSB should consider a variety of different scenarios for ways to

conduct baseline studies on children with EBD. A baseline study is not an evaluation, but can be a source of important data to measure change and assess performance. The specific methodology will depend on a variety of project-specific factors, ranging from specific indicators to time and budget (Morrison, McDougall, Black, & King-Sears, 2014).

Limitations in my research study included a lack of evidence that collection methods were uniform or conducted with confidentiality, unknown rates of return, the quality of questions asked, and a lack of qualitative evidence. The reliability and validity of the secondary sources of historical quantitative data are open to questioning. The lack of control over the data quality does not allow the researcher to analyze each school site and stakeholders for compliance on collection protocols or allow for the ability to speak with or interview participants in the B.E.S.T. Program.

A need exists for sustained investment in data systems to guide the identification of strengths and gaps in implementation programming, as well as to track progress toward positive outcomes. One example is the lack of reporting on pre-intervention rating scales data completed by parents and teachers. Another limitation in the data pertains to lack of information about rule infractions in B.E.S.T participants, thus preventing comparisons with infractions of the control group. The CCRSB provided no information on how many parents and caregivers completed rating scales, which impacts the fidelity of the results. Another restriction in the data collected was the inability of researchers to evaluate the level of information sharing taking place at the classroom and school site levels between professionals about children in Tiers 2 and 3 (Bradshaw,

2013). Each year there is no data to demonstrate that professionals communicated with one another regarding children's backgrounds, previous programming, or interventions that affected emotional, behavioural, or academic outcomes. In the "B.E.S.T. Annual Reports," Jones (2010, 2011, 2012) did not indicate which standard deviation was used, and the documents do not contain an empirically supported rationale for this choice made by the CCRSB.

Another limitation of the data is the inability to differentiate between the satisfaction of parents and guardians of boys versus girls. Celebration of the level of gender diversity among stakeholders is a necessity for the longevity of positive therapeutic environments. In light of current scholarship, practitioners seeking to best understand the needs of children with EBD may approach their work from the social constructivist perspective that honors the myriad number of ways gender can influence differences in treatment options (DiCroce et al., 2016; Kim, Munson, & McKay, 2012; Kutcher & Davidson, 2007).

One of the primary purposes of social constructivist pedagogy is to provide a learning environment in which children with EBD learn transferable knowledge that may be applied to multiple experiences in a holistic sense. These findings have implications on the etiology, nosology, and development of strategies to target treatment, early intervention, and prevention in young students (Avenevoli et al., 2015). The data collected by the CCRSB did not indicate differences in specific schools or student populations based on geographic location within the board.



This research relied upon secondary quantitative data. An empirical evaluation of the B.E.S.T. Program and other CCRSB mental health programs should include more qualitative and critical research in order to allow a better understanding of school-wide interventions from a variety of stakeholder perspectives. Critical research begins from a position of social critique and a desire to bring about meaningful change, and must be emancipatory (Madison, 2011). Critical theory is a unique theoretical perspective because it is a contrast between research that seeks merely to understand and research that challenges (e.g., questions the conceptual and theoretical bases of knowledge and method, asks questions that go beyond prevailing assumptions and understandings, and acknowledges the role of power and social position in mental health services).

The endurance of critical theory as a movement is grounded in the trustworthiness and meaningfulness of the findings both for informing practice to improve teacher education applied to child mental health and also for moving the research conversation in teacher education forward (Bullough & Pinnegar, 2001). Critical research can be used to understand and explain children's mental health programs through analysis methods that include observation, individual and group interviews, and textual and visual data analysis (W. Carr & Kemmis, 2003; L. Cohen et al., 2013; Creswell, 2013). For example, children who participate in programming for EBD can be interviewed and surveyed to help determine their understanding of the foundations of their behaviours. Clinicians', teachers', administrators', and caregivers' perceptions and personal biases regarding treatment options or environments, perceptions about gender

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differences, similarities for students at risk for EBD, and so forth could be measured using a variety of qualitative and quantitative research methodologies.

To test the efficacy of interagency intervention versus isolated care, the behaviour and academic achievement of children with EBD can be measured and analyzed. Furthermore, the behaviour of two groups of students with EBD with similar challenges from various programs versus isolated care could be compared to help determine if children receiving school-based interventions are more successful than those receiving multi-agency interventions. Kutcher (2011) believed that mental health programming for children should be evaluated within the environmental context of each school, family, student, program and, if needed, interagency clinic. Future evaluations of CCRSB programs should mirror this approach and be adaptable to accommodate the changing needs of large urban and rural school systems.

In the future, a wealth of qualitative data could be made available from the CCRSB in the variety of B.E.S.T. information collecting and reporting that is built into the program (e.g., intervention plans, behaviour tracking data, positive daily notes, time-out referrals, classroom and specialist teacher referrals, clinical advisory meetings, school-based student observations, student support plans, meeting summary forms, progress notes, child and family intervention records, end-of-year summaries). This type of qualitative data has the potential to reveal much of the richness and complexity of tacit knowledge surrounding EBD in natural contexts. Leedy and Ormrod (2005) suggested research that is conducted in the outside world, although it may not have the tight

controls of a laboratory project, may be more valid in the sense that it yields results with a broader applicability to other real-world contexts.

The current study lacks any evaluation or discussion of individual clinician, teacher, or administrative strengths and challenges that could significantly impact the effectiveness of EBD programs. Clinical use of the B.E.S.T. model interventions needs to be approached with caution due to the blurred combination of EBD and a lack of consistent therapeutic training of employees. Although components of the model demonstrated promise, the data is inconclusive and an empirical study of specific therapies by appropriately trained clinicians is needed to establish the components of successful and effective therapies within B.E.S.T.

The CCRSB would benefit from careful analysis of both the professional training and background of each B.E.S.T. educator. Analysis of the 2009–2012 “B.E.S.T. Annual Reports” shows 26.3% of interventions in the program involved group and individual counseling (see Figures 9–10). The variety of education and backgrounds of B.E.S.T. educators requires appropriate clinical training to ensure proper legal and ethical conduct in counseling. It is important that the CCRSB ensure B.E.S.T. educators working with children and families involved in the program have appropriate training and experience with the most effective therapeutic interventions (Sullivan, Long, & Kucera, 2011).

The historical data used in this study did not provide a breakdown of males versus females or grade levels in the Severely At-Risk category. A detailed analysis of the students by the CCRSB may clarify if a greater number of female students are being identified due to: (a) the tiered support within the B.E.S.T. schools, (b) increased school-

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based supports and resources from individuals with clinical training, (c) a greater level of professional training among staff that allows for early identification of children, and/or (d) female students demonstrating more externalizing behaviours that are more apparent in the classroom and hence are more likely to be noticed and reported by educators.

Developmental aspects of EBD may be inferred from patterns of gender differences in prevalence. McCurdy et al. (2016) demonstrated males are overrepresented in the EBD population. It would be important for schools to know how many students at the primary level are moderately or severely at risk, as this points to the importance of early detection and screening prior to entering school. It would be critical in the future to analyze this trend in an effort to best service at-risk children and families.

There was no data collected on teacher or staff participation in B.E.S.T. programming. Franklin, Kim, Ryan, Kelly, and Montgomery (2012) noted that little research exists investigating the involvement of teachers in school mental health services or the level of efficacy associated with teachers providing these services. In recent times, there has been an increased interest in focusing on teachers' personal practices and experiences in order to undertake an inquiry that leads to a greater understanding of the complexities of teaching children with EBD. The use of critical study as an authentic form of research is finding increasing support as a method to analyze teaching and learning practices. Fullan (2007) suggested there has been a realization that there is no educational change without people change. Valuable personal learning takes place during critical study.

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The CCRSB would benefit from gathering and analyzing information to explore the extent to which teachers provide mental health services to children in classroom settings in collaboration with professionals working within the B.E.S.T. Program. Key to ongoing research with teachers working at B.E.S.T. school sites is the need to explore the culture of marginalization of student mental health, an unwillingness of staff to implement school-wide universal supports, the lack of initiative to participate in interdisciplinary teamwork, confidentiality concerns, and resource issues that at times affect teachers' willingness to adequately participate in programming (Weist et al., 2012). The data does not present any anomalies in infraction recording by staff within B.E.S.T. school sites that affect the trustworthiness and dependability of content analysis. It would be important for the CCRSB to scrutinize the trustworthiness of every phase of the data collection process, including the preparation, organization, and reporting of results. Together, these measures should give stakeholders a clear indication of the overall trustworthiness of the data collected. Strategies targeted toward each of these challenges may help improve the effectiveness of the B.E.S.T. Programs and student outcomes.

I identified gaps in the investigation of children with EBD participating in school-based support programs from a sociological perspective. There is a lack of data on students' socioeconomic, ethnic, and developmental backgrounds; level of risk by age and gender; and documented length of stay in the program year-to-year. The extent to which school-wide EBD support programs such as the B.E.S.T. Program are associated with greater disciplinary equity across students from different socioeconomic, ethnic, and racial backgrounds remains unclear. Vincent, Tobin, Hawken, and Frank (2012) showed

that disciplinary inequity persisted despite positive, school-wide EBD program implementation, while others have shown promising efforts to reduce disciplinary inequity (Bradshaw, Mitchell, O'Brennan, & Leaf, 2010; Vincent, Swain-Bradway, Tobin, & May, 2011).

As part of this study a request was made to the CCRSB to obtain Power School demographic data on self-identified African Nova Scotian and First Nations students within the board and at each B.E.S.T. school site. The request for data was not fulfilled. This information is important for the evaluation of etiology, resource allocation, and proactive intervention to B.E.S.T. schools most in need of clinical supports. Kauffman, Conroy, Gardner, and Oswald (2008) suggested that effective, evidence-based education is not culturally neutral and that culturally sensitive education demands attention to the individual student from a scientific perspective.

While much of the existing research on school-based emotional behavioural support has concentrated on the issue from an individual perspective, there has been little attention to understanding how EBD is interpreted by a society or from different cultural perspectives. Clients who are socioeconomically challenged, often a subordinate group, have limited opportunities to entertain their impulsive whims, wants, and desires as they struggle to develop career awareness and fulfillment (Briggs, 2009). Recognizing socially patterned differences within and between data in the research sample would provide a broader context and aid in explaining some of the conflicts in existing data that obscure understanding.

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Significant gaps exist in knowledge about sampling children participating in the B.E.S.T. Program as well as Tier 1 students and families who have not accessed services. As noted, parents and caregivers were involved in gathering data for the B.E.S.T. Program in lieu of their children, but comparatively little information was gathered about why parents and families accepted or refused help for their children with EBD. Critical to future strategies is the need for greater child sample description that is based on child and adolescent participants exclusively, and RCTs. This significant data about at-risk children is needed. In addition, the use of large-scale longitudinal qualitative studies of children with EBD to determine or measure the impact participation in the B.E.S.T. program has over time would be useful. Longitudinal research on intrinsic motivation should be undertaken to examine any declines in motivation from early childhood to late adolescence as well as inter-individual stability (Clark & Schroth, 2010; Ougrin, Chatterton, & Banarsee, 2010). Although there are clear ethical issues to resolve prior to involving children and young people in research such as this, it is thought to be in the best interests of children to be involved in order to give them a voice shaping the policies, services, and information intended to support them (Beatch et al., 2008; Diaz et al., 2004).

In this study, there was no information available regarding B.E.S.T. students' access to community based services. The additional benefits of this information would be to help professionals working within the B.E.S.T. Program advocate for children who may need varying levels of support, use resources more effectively, and extend the impact of effective classroom practices into other educational and non-educational

settings (Atkins et al., 2015). Child mental health has evolved conceptually, clinically, and scientifically towards the community based systems of care model. Garland et al. (2013) suggested this model incorporates important values and principles, including (a) the centrality of the child and family in the care process, (b) the integration of the efforts of disparate agencies and interveners into a contextual approach, and (c) the importance of serving children with serious disturbances in their homes and communities.

Unfortunately, the study data provided no information regarding family history of mental illness of children participating in the B.E.S.T. Program. It should be noted that EBD in children is often the result of a combination of interacting factors. In a review of the literature, Bakker and colleagues (2010) indicated there is a clear correlation of familial and biological causes, but researchers are uncertain if this is caused by genetic endowment, environment, or both. Early attachment problems, as well as reactive attachment disorder as a result of previous traumatic events, should be considered when working with children and adolescents.

### **6.4 Future Research Needs**

Throughout the study, specific research gaps and future needs were identified. This information might lead to studies that facilitate a more comprehensive understanding of EBD by systematically examining factors that contribute to the causes, effects, and resilient outcomes of children. Table 1 summarizes the research needs identified during the study.



Table 1

*Summary of Future Research Needs in the Study of Children with EBD*

<b>General Category</b>	<b>Specific Research Needs</b>
Behavioural health consequences of EBD	Conduct longitudinal research to track children in Grades Primary–12 in order to more fully understand links to environment, age, family dynamics, substance abuse, academic achievement, programming, supports and resources, and other behaviours including violence and aggression.
Consequences of EBD on academic achievement	Probe how and why EBD affects children’s academic outcomes and functioning
Roles of educators and education support professionals	The CCRSB should better understand the roles of educators and education support professionals in intervening and programming for children with EBD.
Genetic predisposition to mental health outcomes and EBD	Partner with healthcare organizations in Nova Scotia and Canada to better understand the role of genetic influences on EBD; for example, studies that examine prevalence of genetic predisposition in early identification and universal screening of early elementary students
Integration of evidence-based practices	Investigate evidence-based practices for integrating EBD content and social-emotional learning preventative interventions into curricula. Conduct systematic evaluation of CCRSB policies to understand evidence-based practices of EBD must be included in board and provincial department of education procedures.
Role of parents	Explore the role parents play in helping youth navigate social challenges and adapting to stress
Peers as a context	Explore the effects of peers on EBD, especially peers as leaders of classrooms and their effects on EBD in school-based universal programming

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General Category	Specific Research Needs
Physical health consequences of EBD	Examine the physical health consequences for children with EBD, including how outcomes vary over time for different groups of children, why individuals with the same disorders may have different physical health outcomes, and how physical and emotional health outcomes intersect over time
Age	Investigate factors such as children aging out of the B.E.S.T. Program, as well as the relative contributions of maturity and B.E.S.T. interventions. Examine relations between age and level of severity, grade, level, and need for intervention.
Gender	Gather data from participants and families to provide insight into the satisfaction level of stakeholders specific to boys or girls. There is a need to collect data on gender and severity to examine level of risk for males and females by grade level. The study results raise a crucial question about the need for the formulation of gender-specific programming for male students to help address their emotional and behavioural needs, and the impact of gender-specific programming on both boys' and girls' experiences within school settings.
EBCI-Parent Behaviour Rating Scale-Severity	Future programming should focus on the 33% of EBCI-Severity and 36.3% of ECBI™-Problem Parent survey results that indicated unchanged behaviours. It might be beneficial for the CCRSB to track and determine if the same students remain unchanged year-to-year.
SESBI-R™ Teacher Behaviour Rating Scale-Problem	Future programming should focus on the 29% of SESBI-R™-Severity and 48% SESBI-R™-Problem teacher surveys in which behaviours were rated as unchanged. Detailed analysis with teachers would allow insight into individual components of programming and promote revisions to adapt B.E.S.T. programming in an attempt to improve the outcomes for children.

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General Category	Specific Research Needs
Attrition rates	Research that follows the development of children from primary to twelfth grade could provide valuable information to clinicians and educators on a variety of components important to mental health programming (e.g., professional development, evaluation on an ongoing basis, early intervention, collaboration, cultural diversity, use of technology, recruitment of research partners).
Secondary data	The CCRSB should explore the use of secondary data with which future researchers can engage in the comprehensive study of EBD in early elementary students (e.g., office referrals, site-based team referrals, guidance referrals, the Nova Scotia Department of Education online behavioural incident reporting forms, B.E.S.T. clinical progress notes).
Preventative interventions	Future research that investigates evidence-based interventions targeted toward children with EBD is needed in order to reduce problems. Study how to improve the adoption and implementation of evidence-based programs, including testing models to better understand what works for whom and under what conditions would help address a research gap.
	The role of social-cognitive and emotion regulation processes as targets for preventive interventions require further examination and understanding. Additional large-scale, rigorous studies on the combined effects of EBD in multi-tiered programs should be conducted. Systematic studies to assess the impacts of selective and indicated programs on EBD should be developed.
Funding implications	The CCRSB should consider the pros and cons of hiring B.E.S.T. educators in addition to classroom and specialist teachers, family interventionists, and educational assistants. Exploration of alternatives based on effective existing programs should be considered in future programming.

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General Category	Specific Research Needs
Sociological, cultural, and life events	School-wide EBD support implementation emphasizes contextual fit to local cultures (McIntosh et al., 2010), but current practices provide limited recommendations for creating school cultures that equally acknowledge all children’s socioeconomic, racial, and ethnic backgrounds, or minimize bias in data collection protocols. Of particular concern is the limited practice of disaggregating discipline data by student race and ethnicity, a prerequisite to identifying potentially inequitable outcomes. Practitioners need to be cognizant of external risk factors that include sociological and cultural life events (Mental Health Commission of Canada, 2009). Research that examines potential sociological, cultural, and life variables contributing to mental illness is greatly needed.

My study has implications for practice and future research that may have an impact at B.E.S.T. schools, the CCRSB, and provincial levels. It is not surprising that the CCRSB with leadership willing to commit staff (FTE) to support EBD program implementation would see the value in expanding their efforts with their support and planning for sustainability. The CCRSB must recognize the need for continued learning in order to keep up with current empirically supported models of intervention to care for children with EBD. In the reviewed literature, clinicians, educators, and administrators with EBD experience, reported more positive perceptions of their skills related to intervention practices, which aligns with the idea that skills develop through experience not just exposure (Breeman et al., 2015; Bridgeland, Bruce, & Hariharan, 2013; de la Cruz et al., 2015; Jennings & Greenberg, 2009; Vos et al., 2015; Waxmonsky et al.,

2016). This type of research would add to the work of C. S. Anderson (2004) and Gresham et al. (2004) that explained how to create school environments which nurtured mental health. Particular attention to the work of Lynch, Laws, and McKenna (2010) and Mertens and Wilson (2012) is needed when considering alterations to the B.E.S.T. Program that maximize the effects of empirically supported interventions.

## **6.5 Conclusion**

In this study, I set out to examine the effectiveness of B.E.S.T. school-based clinical interventions for EBD within eight elementary schools. The research literature on the subject and specifically in the context of elementary children's mental health in Nova Scotia and Canada is inconclusive on several vital questions about within school-based programming. The study was focused on answering the following questions:

1. Do children with EBD who receive Tier 2 and 3 clinical interventions demonstrate a decrease in school-based emotional and behavioural problems after participation in B.E.S.T. compared to pre-intervention?
2. Do clinical staff, teachers, and parents report a decrease in conduct problems in children with EBD after clinical intervention?
3. Is the B.E.S.T. program more effective for boys versus girls enrolled in the program?
4. Is the B.E.S.T. program more likely to have positive outcomes for children if implemented at specific grade levels or age groups?
5. What interventions or strategies are being most utilized and least utilized?

**6.5.1 Environment.** At the core of EBD support models is a teaching pedagogy in which learning environments must be established wherein students feel physically, psychologically, socially, and culturally secure (Algozzine, Wang, & Violette, 2011). Academic and social achievement is more likely for children with EBD when they are exposed to safe and supportive environments. One of the premises of supporting children with an EBD is that positive and secure settings are useful in all environments that students occupy. For example, Stuart (2006) suggested bringing support services to the child through cooperative teaching rather than moving the child from the classroom to another more segregated environment such as a resource room. Hazen and Campa (2013) highlighted new treatment options that adapt a therapeutic approach grounded and guided by the principles of attachment theory and engagement of affected youth in a process of pro-social behavioural choices. The reviewed literature and study data revealed a positive and supportive learning environment to assist children, staff, and parents in managing children's emotions and behaviours can lead to better schooling experiences for children and stakeholders (Durlak, Domitrovich, Weissburg, & Gullotta, 2015). Analysis of parents and teacher's data in this study are consistent with global research results (Doll & Cummings, 2008; Reebye & Stalker, 2007; Sugai & Horner, 2006) that suggested the notion of isolated intervention must be discarded and replaced with social-ecological theory that includes the individual, family, peers, school, and the community (Horner, Sugai, & Vincent, 2005; Schroeder & Gordon, 2002; Shapiro & Kratochwill, 2000).

The reviewed data indicated that children with EBD who participated in B.E.S.T. had positive results in overall emotional and behavioural functioning within the teaching and learning environment. The results demonstrated that the program meets the outcome measures set out in the CCRSB B.E.S.T. guidelines discussed earlier in this dissertation. My hypotheses have been substantiated by the results; however, the study results did not reveal if such programming has a direct impact on the enhancement of academic achievement.

**6.5.2 Professional development.** There is sufficient evidence from this study to inform policy and practice directions in elementary school-based EBD support programs. The results suggest the B.E.S.T. Program is effective or potentially promising for reducing EBD and related concerns. Climie (2015) suggested it was necessary to ensure that school-based personnel have the required training and understanding of mental health issues so that children may be appropriately supported. Researchers have widely cited a lack of adequate teacher training with respect to the needs of students with conduct disorders, suggesting that broader instructional supports are necessary for effective roll out of intervention programs (Canadian Institute for Health Information, 2009; Government of Nova Scotia, 2013; Kutcher & McLuckie, 2013; Leblanc et al., 2013; Mental Health Commission of Canada, 2009).

My study can be used as a foundational piece in the examination of school-based mental health programs in Nova Scotia and provide educators with insight into what aspects of the current programs are working, as well as a road map for future models established within the province. Adequate time for ongoing quality professional

development, coaching supports, and performance feedback are essential features of high quality implementation support system for achieving evidence-based practices; positive effects cannot otherwise be expected (Domitrovich et al., 2008). Examination of the control group's behavioural infractions demonstrated following instructions, respect for others, and working quietly were the most reported behavioural infractions. This data yields important information for analysis by the CCRSB to further understand what is happening within these teaching and learning environments. Efforts can be taken to better train and equip both B.E.S.T. teachers and all elementary teachers to focus on positive interventions to better address these types of behaviours in children. This study was used to probe numerous empirically supported school-based models and interventions that are applicable to these scenarios and can be easily altered and/or applied to CCRSB classrooms. The study results showed that the use of skills training, various individual and group therapies, and in-class coaching are the most effective strategies when working with Tier 2 and 3 children. Future professional development for professionals should include focus on Code of Ethics and Code of Conduct requirements to ensure employees have the appropriate backgrounds and training to effectively interact with students experiencing EBD.

During the course of this study, gaps in awareness and knowledge about identification and treatment of EBD across society, in schools, in community settings, and in government-provided services have been highlighted (Duke, Borowsky, Pettingell, & McMorris, 2011). As outlined in the study and supported by Levesque et al. (2013), this necessitates consideration of available services while acknowledging the lack of



substantive evaluations of Canadian programs for children with EBD. A common trend demonstrated in the Tri-Ministry Project (Hundert, et al. 1999), the Montreal Longitudinal Experimental Study (Boisjoli et al., 2007), and McIntosh et al. (2011) research is the uniqueness of this type of research and a need for stakeholders to become better equipped to service a growing need for emotional behavioural supports for children at an early age within Canadian schools. It would be beneficial for clinicians and teachers in the CCRSB and all Canadian school systems to become familiar with self-efficacy theory, attribution theory, self-worth theory, achievement goal theory, attachment theory, meta-cognition, and reinforcement theory to best prepare to accentuate children's internal states or conditions in order to optimally activate, guide, or maintain appropriate emotions and behaviours.

Osher et al. (2010) revealed the importance of professionals continuing to assess overall treatment programs, analyze the components of school-based interventions, build more effective strategies, and compare different interventions to demonstrate challenges and areas of strength. Although EBD programs are typically aimed at having effects on youth, they may also yield benefits for the individuals implementing the programs. For example, recent findings from a RCT of a social-emotional learning and behaviour-management program indicated that the program substantially affected the teachers who implemented the program in addition to affecting the students (Domitrovich et al., 2016).

As noted in the literature review, Nock, Teper, and Hollender (2007) suggested clinicians and schools should conduct more studies of child motivation, meta-cognition, and self-regulation as constructs to explore major issues, conditions, or antecedents.

## Emotional Behavioural Supports for Children

These strategies have started to generate much debate with regard to the most beneficial and appropriate treatment for children with EBD (Todd et al., 2008). The importance of clinical practices that increase motivation by supporting child autonomy, providing content goals, and using reinforcement to foster positive relationships is apparent in the literature reviewed (Nock et al., 2007; Seifert, 2004; White & Renk, 2012). In addition, in reviewing the results of this study it became apparent that student motivation theories and change need to be embedded within the foundation of school-based interventions for EBD, thereby providing a framework for understanding emotional reactions and engaging children in a process of pro-social choices (Seifert, 2004; Solomon et al., 2012).

School systems need to alter current practices to incorporate expert electronic technology-based assistance to educators; provide ongoing training in best practices to stakeholders; build in time for planning, implementation, and review of trends; and periodically review time and resources needed to efficiently complete data collection appropriately. When a school implements an intervention without careful consideration of the systems features necessary to guide implementation, the intervention is likely to disappear quickly, be implemented with poor fidelity, or become part of a hodgepodge of interventions, none of which have documented positive effects (Binfet, Gadermann, & Schonert-Reichl, 2016). To identify an appropriate range of strategies in school-based support programs for children with EDB requires efficient organization to regulate which interventions are necessary. Within the eight B.E.S.T. schools natural data sources such as office discipline referrals by staff, student daily attendance, and academic information are available.

## Emotional Behavioural Supports for Children

A local solution within the CCRSB is professional development in partnership with university programs for teaching and support staff. Nova Scotia teachers have access to a number of graduate level degrees, such as diverse learners at Mount Saint Vincent University, mental health education, and culturally responsive pedagogy at Saint Francis Xavier University, that are applicable to improving service delivery for students with EBD in the public education system. The CCRSB and all Canadian school systems should seek professional development opportunities to incorporate empirically supported strategies within all B.E.S.T. schools. These strategies should include behavioural theory that employs a shared vision, mental models, personal mastery, and team learning to aid in the transfer of skills to children with EBD (Centre for Comprehensive School Reform and Improvement, 2008; Piscalkiene, 2009).

A review of predominant interventions being offered is needed to address overlap or non-evidence-based treatments. Leading research conducted by Koocher and College (2008), Kieling et al. (2010), Davidson and Coniglio (2013), and Leblanc et al. (2013) suggested training related to individual, group, and family intervention should include empirically supported approaches. These should include CBT, DBT, and family therapy. Measurement of treatment integrity is critical to the evaluation of efficacy and effectiveness of evidence-based programs designed to improve the developmental outcomes of young children at risk of emotional/behavioural disorders. However, the science of treatment integrity measurement lags behind the development and evaluation of evidence-based programs for young, high-risk children (Jennings & Greenberg, 2009).

Schools represent Nova Scotia's largest investment in children's development (MacKay, 2012). My study was guided by the fundamental principle that providing children the opportunity to participate in a normal educational setting is the main function of EBD programming. Current global research on EBD in children suggests treatment within school settings must encompass many therapeutic and practical considerations (Chorpita, Bernstein, & Daleiden, 2011; J. Freeman et al., 2013; Mash & Barkley, 2006). To maintain long-term gains, school sites and professional staff need support in pedagogical practice that includes (a) attention to organizational conditions for effective school mental health; (b) investment in empirically supported learning programs; (c) systematic professional development for school staff in mental health; (d) consistent and timely evaluation of approaches to working with EBD in children; (e) knowledge of behavioural, cognitive, and constructivist classroom management techniques; and (f) continued growth of inclusive school–community partnerships for children and families (Farmer et al., 2016; Waschbusch & Elgar, 2007). The most powerful benefit of evaluation is establishing a feedback loop for continuous improvement, so that measurement of implementation enhances fidelity, which in turn enhances student outcomes.

**6.5.3 Leadership.** Leadership at all levels of the CCRSB is an essential factor in effective instruction for children with EBD, and leadership must be united in placing priority on creating meaningful school-based interventions (University of California, Los Angeles, School Mental Health Project, 2009). The Government of Ontario (2011) suggested there is no one consistent leadership structure within school boards for issues

related to student mental health. An important implication of this study that directly relates to the goals of the CCRSB and related global research is the need to align educational priorities with empirically supported mental health therapeutic strategies (Mental Health Commission of Canada, 2009).

The CCRSB should demonstrate a provincial leadership initiative in this domain and the process of knowledge, by increasing levels of planning, resource allocation, implementation methodology, and program component evaluation. True sustainability requires thoughtful planning on the part of school, board, and provincial leadership teams (McIntosh, Filter, Bennett, Ryan, & Sugai, 2011). Without a fundamental change in leadership, schools cannot be expected to meet the requirements of children's mental healthcare needs. Based on synthesis of best practices of similar programs in Canada, the CCRSB should work to ensure similar specific components exist within all mental health models. These include multi-tiered levels of support with liaison criteria of school administrative teams (Berry, 2006), multi-agency participation that utilizes existing regional services (Government of Nova Scotia, 2012a), and centralized identification or an intake system for pre-primary and primary students to establish transition linkages with mental health, child protection services, and early childhood intervention (Nelson & Kauffman, 2009). Lasting change will ultimately require a transformation of culture, beliefs, assumptions, expectations, and habits that constitute the norm for people throughout the organization. The reverse is not true (Dufour, Eaker, & Dufour, 2006).

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Appendix A. Behaviour Intervention Record

**Code: BBIR-01-04**



**B.E.S.T. Program**  
**BEST Behavioural Intervention**  
**Record Form**

**Student Name:** \_\_\_\_\_ **D.O.B:** \_\_\_\_\_

**School:** \_\_\_\_\_ **Grade:** \_\_\_\_\_

**Meeting Date:** \_\_\_\_\_ **Next Review Meeting** \_\_\_\_\_

**Long Term Goal:** \_\_\_\_\_

Target Behaviour	Strategy to be Used	Person(s) Responsible	Success Criterion	Evaluation (dates)

Student Cum Record     Parent / Guardian     Attached IPP, as applicable

Appendix B. Behaviour Data Tracking

Code: BSO-01-04



**B.E.S.T. Program**

**Student Observation Form**

Child's Name: \_\_\_\_\_ Date: \_\_\_\_\_ Day of Week: \_\_\_\_\_

Length of Time: 30 minutes Time: \_\_\_\_\_ Location: \_\_\_\_\_

Targeted Behaviors: TS - targeted student

Rules	Frequency (tally)		
	TS #1	St#2	St#3
Respect Self/Others			
Follow Directions			
Stay in Seat/Area			
Work Quietly			
Use Materials Appropriately			
Raise Hand/Take Turns			
<b>TOTAL RULE INFRACTIONS</b>			

Compliance - Tally the number of times the target student is in compliance or noncompliance with a teacher request. '+' = compliance '-' = noncompliance

Group Commands	Individual Commands	Comments
+	+	
-	-	
Ratio:	Ratio:	

Social Reinforcement - Tally the number of times the target student received positive or negative (ie, rule infractions, warnings) feedback.

Positive Feedback	Negative Feedback	Ratio (Positive/Negative)	Comments

Other Observations:

Appendix C. School-Wide Universal Rules Example

Samples of the School Rules

 <p>Follow Directions</p>	 <p>Raise Hand/Take Turns</p>
 <p>Respect Self/Others</p>	 <p>Stay In Your Seat/Area</p>
 <p>Work Quietly</p>	 <p>Use Materials Appropriately</p>



Appendix E. Behavioural Matrix Example












EXPECTATIONS							
S E T T I N G S		RESPECT FOR SELF AND OTHERS	WORK QUIETLY	USE MATERIALS APPROPRIATELY	FOLLOW DIRECTIONS	STAY IN YOUR SEAT/AREA	TAKE TURNS/RAISE YOUR HAND
	IN ALL AREAS OF SCHOOL	Give your best effort. Dress, speak, and act properly. Be responsible for what you say and do. Keep hands and feet to yourself.	Work quietly. Noise level should be appropriate to the task.	Take care of materials. Keep the school clean. Use indoor footwear in school.	Be prepared with materials. Follow directions. Do your homework. Know and follow your classroom routine.	Respect boundaries.	Take turns. Raise hand when asking and answering questions. Listen to others in the class.
	HALLWAYS AND STAIRWAYS	Walk in single file. Keep moving. Keep to the right.	Walk quietly. Use inside behavior.	Respect and appreciate displays.	When accompanied, listen to the teacher.	Seek adult permission and use only designated routes.	Others can be in front of you. Stay in the order in which you started.
	OUTSIDE AND PLAYGROUND	Play safely and fairly. Use appropriate language. Resolve conflicts appropriately. Interact positively with peers. Respect equipment.		Put litter into appropriate containers. Take care of sports equipment.	Follow directions of the attending adult.	Play in designated areas.	Take turns/share. Follow game rules.
	CAFETERIA	Use good manners. Keep space clean. Recycle.	Speak quietly.	Clean up after yourself. Recycle.	Follow directions of staff member on duty.	Eat in your designated place.	Wait in food line quietly. Leave when dismissed.
	LIBRARY AND COMPUTER LAB	Use time wisely. Return books on time. Respect books and equipment.	Work quietly.	Put books in proper place. Keep work area neat. Use computers properly.	Listen to adult. Eat and drink elsewhere. Enter only approved internet sites.		Take turns. Share books and equipment.
	ASSEMBLY	Listen to the presenters / performers. Allow others to focus. Respond appropriately. Show interest.	Be very quiet when someone is talking.		Participate in assemblies. Show interest in presenters.	Stay with your class.	Remain seated until your class is dismissed.
	SCHOOL TRIPS AND BUSES	Be on time. Respect privaters, performers, and driver. Respect privacy.	Use moderate voice level.	Follow posted bus rules.	Follow adult's instructions.	Stay in your seat on the bus.	Get on and off bus in an orderly manner.
	WASHROOMS	Wash hands. Flush toilets and clean up.	Walk quietly in the halls to and from the washroom.	Turn off taps, put paper in garbage, and flush.	Eat and drink elsewhere.	Go directly to and from the washroom.	Loiter free area.
	GYM	Wear appropriate apparel. Participate to your ability. Practice fair play.	Use moderate voice level.	Take care of equipment. Be careful when moving and using equipment.	Listen to and follow directions and safety rules. Eat and drink elsewhere.	Start in your squads.	Follow game rules. Share equipment.
BELL TIMES	Keep hands and feet to yourself. Proceed in single file through appropriate doors.	Use quiet voice while in line. Listen for announcements.	Keep coat racks and boot racks tidy.	Listen to the teacher or bus monitor.	Use appropriate door.	Respect personal space.	



Appendix F. Positive Note to Student

Appendix D:

Sample Positive Notes

 <p>_____</p> <p>followed our Panda Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>	 <p>_____</p> <p>followed our Panda Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>	 <p>_____</p> <p>followed our Panda Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>	 <p>_____</p> <p>followed our Panda Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>
 <p>_____</p> <p>followed our BEST Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>	 <p>_____</p> <p>followed our BEST Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>	 <p>_____</p> <p>followed our BEST Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>	 <p>_____</p> <p>followed our BEST Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>
 <p>_____</p> <p>followed our School Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>	 <p>_____</p> <p>followed our School Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>	 <p>_____</p> <p>followed our School Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>	 <p>_____</p> <p>followed our School Rules today!</p> <p>_____</p> <p>Date      Teacher</p> <p>_____</p> <p>Parent Initials</p>

Appendix G. Time-Out / Office Referral

### Office Discipline Referral

Student Name: \_\_\_\_\_ Grade: \_\_\_\_\_ Referral to:  Principal  
 Vice Principal

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Issue(s) of Concern

<ul style="list-style-type: none"> <li><input type="checkbox"/> Disrespect</li> <li><input type="checkbox"/> Attendance</li> <li><input type="checkbox"/> Bullying/Harassment</li> <li><input type="checkbox"/> Illegal Substance</li> <li><input type="checkbox"/> Physical Aggression</li> <li><input type="checkbox"/> Snowballs</li> <li><input type="checkbox"/> Weapon</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Classroom Behaviour</li> <li><input type="checkbox"/> Non-Classroom Behavior</li> <li><input type="checkbox"/> Theft</li> <li><input type="checkbox"/> Vandalism</li> <li><input type="checkbox"/> Academic Performance</li> <li><input type="checkbox"/> Defiance</li> <li><input type="checkbox"/> Safety Risk</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Offensive Language</li> <li><input type="checkbox"/> Field Trip/Athletics Behaviour</li> <li><input type="checkbox"/> Computer Abuse</li> <li><input type="checkbox"/> Dress Code</li> <li><input type="checkbox"/> Fighting</li> <li><input type="checkbox"/> Other _____</li> </ul>
---	---	---

Description of Behaviour: \_\_\_\_\_

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Location	Time	Others Involved:
<ul style="list-style-type: none"> <li><input type="checkbox"/> Assembly</li> <li><input type="checkbox"/> Bus</li> <li><input type="checkbox"/> Library</li> <li><input type="checkbox"/> Computer Lab</li> <li><input type="checkbox"/> AV Room</li> <li><input type="checkbox"/> Field/Outside</li> <li><input type="checkbox"/> Hall</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Playground</li> <li><input type="checkbox"/> Off Campus</li> <li><input type="checkbox"/> Gym</li> <li><input type="checkbox"/> Classroom</li> <li><input type="checkbox"/> Stairwell</li> <li><input type="checkbox"/> Bike Rack/Parking Lot</li> <li><input type="checkbox"/> Other:</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Before School</li> <li><input type="checkbox"/> Morning</li> <li><input type="checkbox"/> AM Break</li> <li><input type="checkbox"/> Lunch</li> <li><input type="checkbox"/> Afternoon</li> <li><input type="checkbox"/> After School</li> </ul>
<ul style="list-style-type: none"> <li><input type="checkbox"/> Peers</li> <li><input type="checkbox"/> Teacher</li> <li><input type="checkbox"/> Staff</li> <li><input type="checkbox"/> Others:</li> <li><input type="checkbox"/> Accomplices:</li> </ul>		

Previous Action with this same problem? Date(s): \_\_\_\_\_ Action(s): \_\_\_\_\_  
 Administrative Consequences – By: \_\_\_\_\_ Date: \_\_\_\_\_

Warning	Detention	Teacher/Student Conference	Parent Conference
Referred to BEST	Suspension (Days )		

Admin. Comments: \_\_\_\_\_



Appendix H. Positive Note to Home

Appendix E: Sample BEST Passport

# My BEST Passport



Name: \_\_\_\_\_

Dear Mom/Dad/Guardian(s),

As you already know our school has BEST this year. The school-wide part of the program makes sure that everyone follows our school rules: follow directions, raise hand/take turns, respect self/others, stay in seat/area, use materials appropriately, and work quietly. If we follow the rules (less than 3 strikes/day), we will earn a positive stamp. At the end of the week, if we get 4/5 stamps then we get to go to a Fun Activity that our teachers plan! This year, our teacher is giving us this "BEST Passbook" in order to share with our parents how we're doing and to keep track of our success! Our teacher would like you to initial our passbook each day and praise us when we earn a positive stamp. Please remember, everyone has a bad day once in a while - it's ok!!! If you have any questions, you can ask my teacher, our principal, or any of the BEST Staff.

Love, \_\_\_\_\_

Appendix I. Outstanding Behaviour Ticket Example

Appendix F: Outstanding Behaviour Tickets

<p><b>Gotcha!</b></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>	<p><b>Gotcha!</b></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>	<p><i>Gotcha!</i></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>	<p><b>Gotcha!</b></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>
<p><b>GOOD DEED NOTE</b></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>	<p><b>GOOD DEED NOTE</b></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>	<p><b>GOOD DEED NOTE</b></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>	<p><b>GOOD DEED NOTE</b></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>
<p><i>Outstanding Behaviour</i></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>	<p><b>Outstanding Behaviour</b></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>	<p><b>Outstanding Behaviour</b></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>	<p><b>Outstanding Behaviour</b></p> <p>_____ Name            Grade</p> <p>Reason:</p> <p>_____ Date            Initials</p>

Appendix J. Weekly Privileges Examples

Appendix I: Ideas for Fun Activities

Animation	ants on a log	archery	art activities
Baking	Barbie bonanza	baseball	basketball
basket weaving	battleship	baton twirling	beading
bracelets	Beanie Babies	bean bag toss	biking
bingo	bird feeders	bird houses	bird watching
board games	bowling	bring-a-pet	bring- a-toy
bug show	building blocks	cake decorating	calligraphy
campfire songs/skits	cars/trucks	cards	caroling
cartooning	castle building	charades	checkers
cheerleading	chess	Christmas ornaments	Christmas placemats
Christmas show & tell	class parties	clay	clogging
coloring book crazy	computer	Connect Four	crafts
cross country skiing	decorating for special events	drama	dinky day
dinosaur fun	dodge ball	face painting	drawing
dream catchers	drummers		fashion designer paper
dolls			
floor hockey	folk dancing	food fun	free classroom time
free playground time	friendship bracelets	game boy mania	gardening
golf	greeting card maker	guest speakers	gym games
gymnastics	happy face sandwiches	haunted house	Head-Banz (game)
hiking	hip hop dance	hopscotch	hula hoops
hypnotist	internet surfing	karaoke	Kente Quilt
knitting	Kwanzaa activities	lantern-making	leaf prints
lego	lighthouses	line dancing	lip-syncs
logic games	make-overs	magic show	magic tape drawing
magic tricks	hairstyling	marbles	painting
pumpkin carving/ painting	puppets	puppet-making	read-a-book club
reading slumber party	relay races	reptile man	rice painting
road hockey	rock climbing	rubber stamping	rug hooking
running races	scavenger hunt	science experiments	scrabble
search & rescue demo	signs of spring	sing-alongs	skating
skipping	sledding	sleigh ride	slumber party
snack-making	snakes & ladders	snow sculptures	soap carving
soccer	soccer baseball	sock hop	solitaire card games
stations			
story telling	“surf the net”	swimming	
talent show	tie-dying	tole painting	tours
trivia games	trust games	ukulele	Ukrainian eggs demo
valentine crafts	video-making	vocabulary bingo	volleyball
walking tours	Who Wants to Be A Millionaire? (game)	Writers in Schools	window painting
Win, Lose or Draw	word puzzles		wreaths

Appendix K. Weekly Fun Activities Example Sign-Up Sheet

Appendix G: Sample Fun Activity Sign-Up Sheet

<b>Fun Activity Sign-Up Sheet</b>
-----------------------------------

Grades: \_\_\_\_\_

Teacher: \_\_\_\_\_

Date: \_\_\_\_\_

Walking Tour	Dodgeball	Board Games
Totals:		
<i>Supervisors:</i>		

Appendix L. Classroom/Specialist Teacher Referral to B.E.S.T.

**Code: BTR-01-04**



**B.E.S.T. Program  
Teacher Referral Form**

**Teacher:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Student:** \_\_\_\_\_ **Grade:** \_\_\_\_ **D.O.B:** \_\_\_\_\_

**Student Address:** \_\_\_\_\_ **Phone #:** \_\_\_\_\_

**Parent/Guardian(s):** \_\_\_\_\_

**Reason for referral:**

**Ratings :** In your opinion, please rate the following on a scale from 1-5  
(Scale 1= severe, 2=moderate, 3=mild, 4=good, 5=excellent)

	<b>SEVERITY</b>	<b>DESCRIBE OR COMMENT</b>
<b>Behavioral</b>		
<b>Social/Peer Relationships</b>		
<b>Emotional</b>		
<b>Family</b>		
<b>Academic</b>		
<b>Other</b>		

Appendix M. Clinical Advisory Meeting Example

Code: BCAM-01-04



**B.E.S.T. Program**  
**BEST Clinical Advisory Meeting**

**Members Present:**


**Student Referrals & Updates:**

Student	Discussion Issue	Action Plan	By Who	Date

Appendix N. B.E.S.T. Parent Information and Permission Form for Individualized Support



**Code: BPIP-01-04**

**B.E.S.T. Program**  
**Best Parent Information And Permission Form**  
**For Individual Student Support**

STUDENT: \_\_\_\_\_ DOB: \_\_\_\_\_

TEACHER: \_\_\_\_\_ SCHOOL: \_\_\_\_\_

BEST STAFF: \_\_\_\_\_ DATE: \_\_\_\_\_

Dear Parent or Guardian,

As you know the BEST Program consists of a school-wide program where children are expected to learn and follow basic school rules. Student success is measured by earning positive notes and weekly fun activities. Their classroom teacher shares student progress with parents on a daily basis.

Your child has had difficulty following these rules and a referral has been made for additional support. Such Individual Student Support may include extra academic assistance, small group skills training in social skills or anger management provided by the BEST Staff, a formal individual behaviour plan, involvement by the BEST Behaviour Specialist, and assistance with behaviour from an educational assistant within or outside of the classroom. Your permission is required for such an individual program and the BEST staff will work with you in helping plan your child's specific program. Please read and sign the consent form below:

**Parent/Guardian Consent Form for Individual Student Support:**

I have reviewed the above information with BEST staff and understand the Individual Student Support component as described above. I understand that specific services will be offered to my child to enhance my child's academic, behavioural and social success. I understand that by giving permission for these services that details of my child's progress will be discussed with BEST staff, the school principal, classroom teachers, and school specialists as appropriate. This information will be part of my child's confidential individual school file, but will not be released to anyone outside the school system without my written permission.

I give permission for the BEST staff to work with my child for Individual Student Support. I understand that I have the right to withdraw my child from this support after consultation with BEST staff.

\_\_\_\_\_  
Parent/ Guardian: DATE \_\_\_\_\_

\_\_\_\_\_  
BEST Clinical Team Member: DATE \_\_\_\_\_

Appendix O. Student Behaviour Support Plan

**Code: BTR-01-04, pg.2/2**

**What strategies have already been tried to support child's difficulties?**

<b>Strategy</b>	<b>Time Period</b>	<b>Outcome / Effect</b>
<b>Home Contact</b>		
<b>Classroom Strategies</b>		
<b>School Wide Strategies</b>		
<b>Other</b>		

**Suggested realistic goals that would assist this child:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**Suggested for service:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**Are you aware of any other services, past or present, being offered to this student/family? (check box)**

- Academic support from Resource Teacher
- Social Work involvement
- Referral to Mental Health or Doctor
- EA support in class
- Referral to school Psychologist
- Other (please specify):

\_\_\_\_\_  
Teacher Signature

\_\_\_\_\_  
Date

*Please return to BEST staff.*



Appendix P. B.E.S.T. Meeting Summary Form

**Code: BCAM-01-04, pg. 2/2**

<b>BEST Staff Issues:</b>	
<b>Program Issues:</b>	
<b>School Issues:</b>	
<b>Items for Next Agenda:</b>	<b>Date:</b>

\_\_\_\_\_  
Signature of Recorder

\_\_\_\_\_  
Date

Appendix Q. B.E.S.T. Team Progress Notes

**Code: BSIR-01-04, pg. 3/3**

**PROGRESS NOTES:**

**1<sup>st</sup> Term:**

**2<sup>nd</sup> Term:**

**3<sup>rd</sup> Term:**

**Recommendations for next year:**

**Completed By:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Copy to Student Confidential File and Family Student Services Consultants**

Appendix R. B.E.S.T. School-Based Intervention Record

Code: BSIR-01-04



**B.E.S.T Program**  
**Student School-Based Intervention Record**

To be completed by the BEST Clinical Team

Student Name: \_\_\_\_\_ DOB: \_\_\_\_\_

School: \_\_\_\_\_

Grade: \_\_\_\_\_ Teacher \_\_\_\_\_

Date: \_\_\_\_\_ School Year: \_\_\_\_\_

Reasons for referral:

Goals:

**SERVICES PROVIDED:**

Programming	Start Date	End Date	# Sessions	By Whom
Anger Management				
Social Skills				
Play Group				
Check In				
Classroom Behavior Support				
Home Work Club				
Other				

Appendix S. B.E.S.T. Parent Information and Permission Meeting for Family Support Services

Code: BPIPF-01-04



**B.E.S.T Program**

**BEST Parent Information and Permission Form  
for Family Support Service**

**STUDENT:** \_\_\_\_\_ **SCHOOL:** \_\_\_\_\_

**PARENT / GUARDIAN:** \_\_\_\_\_ **D.O.B.:** \_\_\_\_\_

**BEST INTERVENTIONIST:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

Dear Parent or Guardian,

As you know the BEST Program consists of a school-wide program in which children are expected to follow basic school rules. Student success is measured by earning positive notes and weekly fun activities. Their classroom teacher shares student progress with parents on a daily basis.

Your child has had difficulty following these rules and has been referred for additional support. As part of that support, your family may wish to work with our family interventionist to assist you in helping your child be more successful in school.

The role of the interventionist is to provide support to families and children to help insure good communications between school and home, and to help parents and school staff to work cooperatively with each other to give children consistent expectations and support. Contact with parents or guardians may take place over the phone, at meetings at the school, or can be arranged in the home or in the community. The first step will be for you and the BEST Family Interventionist to meet and to discuss and agree on possible services.

Family-based support and interventions remain confidential and specific information may only be discussed with school staff with your expressed permission. A brief summary of the services your family receives will remain in a confidential file that is stored in the Special Services Files at the Family of School Office. You will have the chance to see and sign this summary. In addition, information about your family's participation may be discussed in supervisory sessions.

Please read and sign the consent form below:

**Parent / Guardian Consent Form for Family Support:**

**I have reviewed the above information with BEST staff and understand the Family Support component as described above. I have discussed my rights and any limits to confidentiality with the family interventionist and agree to these. I give permission for the BEST staff to work with my family for Family Support. I understand that I have the right to withdraw my family from this support at any time after consultation with BEST staff.**

\_\_\_\_\_  
Parent / Guardian

\_\_\_\_\_  
Date

\_\_\_\_\_  
BEST Family Interventionist

\_\_\_\_\_  
Date

Appendix T. B.E.S.T. Family Intervention Plan

**Code: BFIP-01-04**



**B.E.S.T Program  
Family Intervention Plan**

**Student Name:** \_\_\_\_\_ **DOB:** \_\_\_\_\_

**School:** \_\_\_\_\_ **Grade:** \_\_\_\_\_

**Parent/Guardian:** \_\_\_\_\_ **Phone #:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Date:** \_\_\_\_\_ **School Year** \_\_\_\_\_

**Issues and concerns identified by family and interventionist:**

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**Goals and/or Objectives agreed on by family & interventionist:**

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**Parent:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Interventionist:** \_\_\_\_\_ **Date:** \_\_\_\_\_

