Up the Creek without any Pedagogy:
Piloting a School-Based Modified DBT-A Skills Program to Support At-Risk Students

A Thesis Submitted to the College of
Graduate and Postdoctoral Studies
In Partial Fulfillment of the Requirements
For the Degree of Masters of Education
In the Department of Educational Psychology and Special Education
University of Saskatchewan
Saskatoon

By

TAMMY R. HOLTBY

June, 2017

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OR

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College of Graduate Studies and Research
University of Saskatchewan
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Abstract

Purpose: The purpose of this study was to pilot a modified Dialectical Behavior Therapy for Adolescents (DBT-A) group skills training program for at-risk students in one urban Saskatchewan high school. The study aimed to explore and understand the benefits and challenges of implementing a targeted intervention and to gain insight into the lived experiences of at-risk students using a framework of resiliency research.

Research design: Using a convergent parallel mixed-method design, grade nine and ten students received 12 weeks of manual-guided modified DBT-A group skills training. Quantitative data relating to students' behavioral, emotional, interpersonal, and school functioning were collected at baseline and post-treatment using the BASC-3 (Reynolds & Kamphaus, 2015) and Resiliency Scales for Children (Prince-Embury, 2007). Post-intervention individual interviews and a teacher focus-group interview were conducted, analyzed, and integrated with the quantitative data to create individual resiliency profiles. Overall themes were also identified and discussed in terms of Prince-Embury's (2007) Three-Factor Model of Resiliency.

Results: This study provided preliminary data on the challenges and opportunities of implementing a modified DBT-A group skills training program in a high school setting to support at-risk students, as well as the personal, interpersonal, and contextual risk and protective factors that impact at-risk students' resiliency and emotional and behavioral functioning at school. Findings served to inform future research on interventions for at-risk students that may be provided by school counsellors in Saskatchewan high schools.

Acknowledgements

It is with the deepest gratitude that I acknowledge my research supervisor, Dr. Tim Claypool. Your consistent enthusiasm, encouragement, and belief in the value of this project was an endless source of motivation for me. Your consistent support for me as a graduate student—answering endless questions, availability to meet and discuss the process, organizing committee members and important defense dates against the tightest deadlines—speaks to your passion for teaching and learning. Dr. Claypool, you understood my vision with this research, appreciated the complexity of the work involved, and valued the contribution this research will make to future researchers, practitioners, and most importantly, the students whose experiences I've had the privilege and honor to share and be a part of. Thank you for your wisdom and guidance!

I would also like to acknowledge my research committee member, Dr. David Mykota. Your expertise in resiliency research has been invaluable to this project. I appreciated your recognition of the complexity of this project and its importance to at-risk students.

I would like to thank the College of Education for recognizing my academic achievements and awarding me two Devolved Scholarships. This funding was an invaluable resource during my studies.

I would like to thank Gordon Martell for allowing me to conduct my research with such a wonderful group of students and staff. I know you will find it a worthwhile endeavor.

Most importantly, I wish to acknowledge my husband, Judson, and my children, Krysta, Brittany, and Max, for your inspiration, sacrifices, unwavering support, encouragement, and belief in me. Pursuing graduate school meant having to sacrifice time spent with family, but you were all so patient, understanding, and flexible. Judson, you were my "soft place to fall" when I was feeling overwhelmed, and you took care of EVERYTHING so I could focus on my course and research responsibilities. I am fortunate to have been able to pursue my dream of completing graduate school and I am forever grateful that you were all by my side along the way. I hope my achieving my dream will inspire your own dreams one day. A special thank you to Gary and Anita for always being a significant source of family support and encouragement. You exemplify what parental support looks and feels like and no words can express how much your unconditional acceptance and love means to me.

Dedication

This thesis is dedicated to the students that participated in this study. It is my hope that sharing your stories will inspire change in the current education model in Saskatchewan regarding vulnerable students. Your courage inspired me to be the best version of myself personally and professionally, and you will forever hold a special place in my heart. I wish you all the success and happiness that life offers and I look forward to seeing you at your graduation!

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Chapter 1: Introduction

Purpose of Study

Despite being a well-researched and evidence-based practice (Clark, 2012), the Saskatchewan Ministry of Education's policy (2010) of utilizing formative assessment (FA) to improve student achievement and retention has been met with many challenges by students, parents, teachers, and administrators (Statistics Canada, 2010, 2012), as well as public scrutiny by news media (NewsTalk 650 Radio, 2012). The current issue is not whether formative assessment works in practice, but rather why Saskatchewan students are still achieving at levels below the national average and why graduation rates are declining (Government of Saskatchewan, 2014) despite the promotion of formative assessment.

If educators were to consider the current research on at-risk adolescents, then perhaps the issue of achievement might be better addressed by asking how the current education model in Saskatchewan addresses the unique needs of this rapidly increasing population. It is reasonable to suggest that not only are these students not achieving at the national average, but they are also the ones who are not graduating (Rathus & Miller, 2015; Spratt, Schucksmith, Philip, & Watson, 2006). The current study argues for a learning pedagogy that "acknowledges the multiple interactions within and beyond the classroom which shape experiences, individual identities, and social worlds" (Schweisfurth, 2015, p. 259).

The purpose of this study was to pilot a modified Dialectical Behavior Therapy for Adolescents (DBT-A) group skills training program for at-risk students in one urban Saskatchewan high school. The study aimed to explore and understand the benefits and challenges of effective implementation of a targeted secondary-level intervention based on the Response to Intervention (RTI) model, and to gain insight into the lived experiences of at-risk students through the lens of resiliency research. Research literature suggests a strong link between childhood adversity, maladaptive emotional self-regulation (including excessive anxiety, depression, and internalizing behavior symptoms) in adolescence, and school failure (Lessard, Butler-Kisber, Fortin, & Marcotte, 2014; Rathus & Miller, 2015). From a resiliency perspective, developing effective emotional self-regulation skills is a critical protective factor for fostering resiliency in adolescents so that they can re-engage in their education and more importantly, reach graduation (Augustyniak, Brooks, Rinaldo, Bogner, & Hodges, 2009). The key questions guiding the proposed study are: 1) What opportunities and challenges did participants experience with the implementation of the modified DBT-A group skills training

intervention? (2) What personal, interpersonal, and contextual risk and protective factors impact students' emotional and behavioral functioning at school? (3) How will emotional and behavioral functioning and overall resiliency of participants change over a 12-week modified DBT-A group skills training program?

Background of Proposed Study

My research interests stem from my experiences working with at-risk adolescents, my observations of the interactions among visibly passionate teachers and their students, and my research on resiliency. My research is particularly important to me as a parent who is concerned about the emotional and social well-being of my own children. Much of my rationale for the proposed study comes from my observations as a program leader for the Boys and Girls Clubs of Edmonton, as well as being an educational assistant in a specialized classroom for youth with severe behavior disorders. I watched the transformation of adolescents from those who regularly engaged in high-risk behaviors to those who could successfully navigate their social world and effectively manage their difficult emotions without resorting to high-risk behaviors as a coping mechanism. The key to their transformation was having a trusting relationship with a positive adult mentor. This person not only modelled effective interpersonal skills and emotional self-regulation, but also explicitly taught these life skills. Furthermore, because those youth did not have positive child-parent relationships at home due to neglect, abuse, foster care, and homelessness—among other reasons, the mentor served as a source of guidance for them that they would otherwise not have. This relationship kept these kids in school and supported them through their journey to graduation.

As a child, I also experienced not only how certain teachers' attitudes and classroom practices had very negative effects on myself and my siblings, but also how it took only one passionate, caring teacher to minimize these negative effects for me. My siblings were not as fortunate since they did not graduate and have since experienced many negative life outcomes. Additionally, my experiences as a student and as a professional working with students has proven that positive beliefs lead to more positive outcomes, and negative beliefs lead to more negative outcomes (Reschly, Huebner, Appleton, & Antaramian, 2008). The relationships between teachers or school counsellors and their students, both in my children's and my own experiences, appeared to be a critical factor that influenced how engaged or disinterested we were in school (Lessard, Poirier, & Fortin, 2010; Martin & Dowson, 2009), and ultimately what

fostered the resiliency needed to stay in school and graduate. These experiences have shaped the purpose and theoretical framework of the proposed study.

Assumptions

The proposed study is based on three main assumptions. First, a growing number of students are potentially at risk for school failure. This includes those individuals who are faced with adversity in their daily lives as well as those whose psychological needs (Maslow, Frager, & Fadiman, 1970) are not met during their education. Children spend over 15,000 hours of their lives in schools with their teachers (Hattie, 2009) so it is critical that during this time they are having quality experiences that foster healthy emotional, social, physical, psychological, and intellectual development (Milyavskaya & Koestner, 2011). Second, to effect change in our educational system, a holistic learner-centered educational pedagogy (Gill & Thomson, 2012; Noddings, 2006; Schweisfurth, 2015), is needed that more directly aligns with the psychological needs of these students (Mehlum et al., 2014). This could transfer into systematically and consistently identifying at-risk students while providing evidence-based interventions to support their success. Finally, educators at all levels want the best for all students and are open to learning new ways of meeting the needs of our most vulnerable students that will foster resiliency and in turn, help *all* our students graduate.

Key Terms and Definitions

Several terms and concepts shall be defined for the purposes of this study. *Emotional regulation* is defined as "the intrinsic and extrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals" (Thompson, 1994, p. 27). Emotional dysregulation then often involves (1) the lack of important interpersonal self-regulation and distress tolerance capabilities, and (2) personal and environmental factors that inhibit the use of those skills adolescents may already have and interfere with the development of new skills and capacities (Linehan, 2015; Rathus & Miller, 2015). Individuals who experience emotional dysregulation can be characterized as functioning on a spectrum between over-control (under-expression of emotion) and under-control (impulsivity and high reactivity) of emotions (Linehan, 1993).

Resiliency is defined as "the capacity of a dynamic system to withstand or recover from significant challenges that threaten its stability, viability, or development" (Masten, 2011, p. 494). *Resilience* is an adaptive process that is highly contextual, multidimensional, and dependent on the reciprocal interaction between the individual and the environment that evolves

over time whereby an individual willingly makes use of personal and environmental resources to overcome adversity and decrease his or her degree of vulnerability (Cicchetti, 2013; Everall, Altrows, & Paulson, 2006; Luthar & Brown, 2007). It's important to note that *Resiliency* is related to personal attributes while *Resilience* relates to environmental factors (Prince-Embury, 2014).

A*t-risk students* will be defined as those adolescents who demonstrate emotional dysregulation that interferes with healthy functioning across a variety of settings (Augustyniak et al., 2009; Rathus & Miller, 2015) and who experience the following: (a) chronic environmental and family adversity (Buttinger, 2012); (b) impaired self-awareness of emotions, goals, and values (Miller, Rathus, & Linehan, 2007; Rathus & Miller, 2015); (c) frequent interpersonal problems (Linehan, 2015); and (d) at least two school-interfering behaviors. At-risk adolescents often engage in maladaptive behaviors as a coping mechanism to regulate their intense emotions (Geddes, Dziurawiec, & Lee, 2013; Rathus & Miller, 2015), and these behaviors have been linked to negative school outcomes (Wang & Fredricks, 2014).

S*chool-interfering behaviors* may include, but are not limited to, interpersonal conflict, substance abuse, school absenteeism, inability to complete school-related tasks and failure, self-injury (Courtney & Flament, 2015)), property damage, physical harm to others, illegal activities, high-risk sexual behaviors, disordered eating, and avoidance and withdrawal behaviors (Rathus & Miller, 2015). At-risk adolescents may also suffer from undiagnosed disorders and/or learning disabilities that exacerbate school-interfering behaviors.

Significance of Study: DBT-A as Secondary-Level Prevention.

Several research studies indicate that further research is required regarding evidence-based interventions in the school setting for at-risk adolescents (Lessard, et al., 2014) who engage in a variety of school-interfering behaviors ((Mazza, Dexter-Mazza, Miller, Rathus, & Murphy, 2016) and self-harm behaviors (Norman, 2011) during their compulsory education years, especially those interventions focussing on emotional dysregulation (Augustyniak et al., 2009; Weare & Nind, 2011) and more specifically, DBT (Groves, Backer, van den Bosch, & Miller, 2012;). Furthermore, "previous studies among adolescents have focused on measurement of symptoms as outcomes and have not examined measures of resiliency" (Courtney & Flament, 2015, p.537-538).

Currently, only two Saskatchewan school divisions refer to a Response-to-Intervention (RTI) model (Kemp-Koo & Claypool, 2011), which is "a systems-level approach to school

psychology service delivery that integrates instruction, the scientific model, formative assessment, and the psychoeducational assessment process" (McIntosh et al., 2011, p. 21). An RTI approach provides preventative support through data-informed interventions and progress monitoring at the primary, secondary, and tertiary levels. A detailed discussion of RTI is beyond the scope of this study; therefore, readers are encouraged to refer to McIntosh and colleagues (2011) for a comprehensive understanding of RTI. The significance of RTI to the proposed study is that Saskatchewan will be better positioned to meet the needs of at-risk students by shifting focus to proven evidence-based practices, such as providing DBT-A skills training in the school setting, within a primary and secondary prevention framework (Kemp-Koo & Claypool, 2011; Rathus & Miller, 2015; Weare & Nind, 2011).

Adolescents exhibit varying degrees of emotional dysregulation; therefore, training in DBT skills at the primary level may benefit them. At the secondary level, DBT-A skills training can prevent or mitigate the onset of mental health disorders (Rathus & Miller, 2015). In turn, providing DBT-A as a targeted, comprehensive intervention could improve at-risk students' emotional, interpersonal, behavioral, and cognitive levels of self-regulation. This may prove to be an innovative direction towards a holistic student-centered education model for educators to consider that could result in improved graduation rates (Schweisfurth, 2015; Weare & Nind, 2011). Furthermore, developing at-risk adolescents' holistic resilience may have a significant influence on their motivation to invest in their learning, their education, and their future (Hattie, 2013; Lessard, et al., 2010; Lessard, et al., 2008; Munnell McHugh, et al., 2013; Wang & Fredricks, 2014).

It is critical to investigate the challenges related to supporting at-risk students and examine whether high school counsellors have the skills, support, and resources required to keep these students in school and help them graduate (Abrami et al., 2008). In their review of 32 empirical studies examining the efficacy of dropout prevention programs, Freeman and Simonsen (2014) concluded that studies examining the efficacy of interventions designed to prevent school dropout have provided little guidance for practitioners:

> Despite the fact that research about dropout risk factors indicated that most students who dropout were at risk in multiple ways (Lan & Lanthier, 2003; Lee & Burkam, 2003; Neild, 2009; Neild et al., 2008; Roderick & Camburn, 1999; Suh & Suh, 2007), only 48% of studies included multiple intervention components to address multiple

> risk factors. This may be a function of researcher's attempts to simplify research questions in order to identify causal links between the intervention and improved graduation outcomes; however, the result is an empirical literature base that does not provide much guidance for practitioners looking to align practices with the needs of students in their schools (p. 239-240).

Furthermore, Augustyniak and colleagues (2009) argued that "[t]o maximize intervention efficacy, goals and objectives designed to target and improve specific behavioral and social skills should be determined via systematic evaluation (e.g., valid and reliable assessment instruments…) and be used judiciously" (p. 345).

Finally, skills training in a group setting as a form of intervention for emotional dysregulation may have greater impact on behavior because regulation skills develop naturally through social interaction and feedback from peers may stimulate new perspectives and be more effective therapeutically than individual counselling alone (Augustyniak et al., 2009; Delucia-Waack, 2006; Harvey & Rathbone, 2013). Additionally, school resources, which are often limited, can be more optimally utilized in a group format. This study is significant to the issue of school-based interventions for at-risk students because not only may it illustrate how emotional regulation may be a mediator of school outcomes (Martin & Dowson, 2009; Mazza, et al. 2016), but also that emotional regulation in at-risk students can be positively improved through a peer group skills training intervention (Augustyniak et al., 2009; Delucia-Waack, 2006). This study aims to extend educators' current understanding of the unique benefits of applying DBT-A in the school setting to support at-risk students if they are to remain in school and graduate (Mazza, et al., 2016; Weare & Nind, 2012).

CHAPTER 2

Review of Current Literature

How can Saskatchewan schools provide students with explicit emotional and social skills development necessary to successfully navigate the demands of high school and the world beyond high school? A search of the Saskatchewan Ministry of Education's website revealed a recent document, "Renewed Curricula: Understanding Outcomes," (2010) that identifies and outlines three broad areas of learning: Lifelong Learner; Sense of self, Community, and Place; and Engaged Citizens. Underlying these are four cross-curricular competencies: Developing Thinking; Developing Identity and Interdependence; Developing Literacies; and Developing Social Responsibility. Specifically relating to the current study, *developing identity and interdependence* relating to students' personal and social development is broadly defined as:

> Identity develops as an individual interacts with others and the environment, and learns from various life experiences. The development of a positive self-concept, the ability to live in harmony with others and the capacity and aptitude to make responsible decisions about the natural and constructed world supports the concept of interdependence. The focus within this competency is to foster personal reflection and growth, care for others, and the ability to contribute to a sustainable future (2010, p. 25).

Furthermore, the document outlines three broad goals related to developing identity and interdependence:

1. Understand, value, and care for oneself (intellectually, emotionally, physically, spiritually),
2. Understand, value, and care for others, and
3. Understand and value social, economic, and environmental interdependence and sustainability (2010, p. 25).

Finally, within each of these goals are five specific outcomes that demonstrate students' achievement of these goals (see Renewed Curricula, 2010, p. 25 for a description of these). One simply needs to look at a high school student report card to see how the Ministry assesses developing identity and interdependence as a competency (image taken from a current Saskatchewan grade 11 student's report card). A major concern is that when comparing the outlined goals and outcomes identified by the Renewed Curriculum document and this report card, the broad learning area of Sense of Self is assessed using a very generalized and vague

Figure 1. Saskatchewan High School Student Report Card

Learning Behaviour Profile

	4	3	2	1	ME/NT
LEARNING BEHAVIOUR as described by the curriculum expectations	Consistently demonstrates the characteristics	Usually demonstrates the characteristics	Sometimes demonstrates the characteristics	Rarely demonstrates the characteristics	**ME**—Missing Evidence **NT**—Not reported at this time

Lifelong Learner	The student is curious, observant and reflective as they imagine, explore and construct knowledge.
Sense of Self	The student possesses a positive sense of who they are and appreciates the diverse beliefs, languages and practices of others.
Engaged Citizen	The student demonstrates confidence, courage and commitment in their contribution to the community.
Work Habits	The student organizes materials and their time so that they are effective, independent and dependable learners.

criteria description rather than using the outcomes specifically outlined in the Ministry's document. Furthermore, how does a teacher measure a student's sense of who they are and appreciation of the diverse beliefs, languages, and practices of others? This idea not only sounds ridiculous, but the reliance on such generalized constructs also undermines the importance of having clearly outlined measures for assessing specific intrapersonal and interpersonal skills that allow teachers to evaluate holistic self-development and inform IPP programming when these outcomes have not been achieved (Augustyniak et al., 2009; Weare & Nind, 2011).

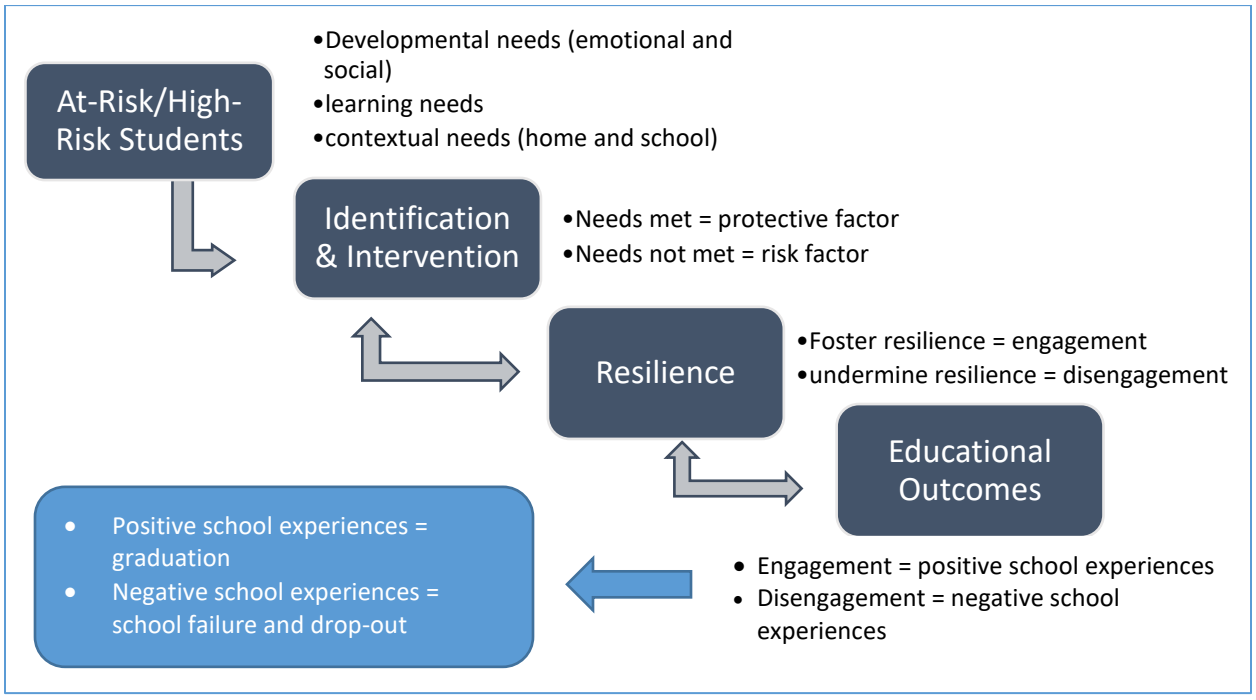
The Relationship between Resilience and School Failure

Dropping out of school can be conceptualized as a process rather than a discrete event that usually occurs during the high school years (Lessard et al., 2008) with students usually beginning to disengage in elementary school. Many of the behavioral indicators (absences, arriving late, increased time in homework hall, high-risk behaviors, self-harm, etc.) are not observed until high school when the learning demands can significantly increase students' anxiety; therefore, many of these at-risk adolescents are seldom identified before high school (Lessard et al., 2008; Lessard et al., 2014). Additionally, adolescence is considered a critical developmental period in a person's life in which abstract thinking abilities develop, making it a prime time to teach interpersonal, emotional self-regulation, and problem-solving skills that foster positive mental health throughout life (Arnett, 2013; Rathus & Miller, 2015; Weare & Nind, 2011). "Adolescents, who are in the formal operational stage of Piagetian development, are more adept at symbolic processing which fosters self-reflection, metacognition, and consequential thinking" (Augustyniak et al., 2009, p. 345). Therefore, adolescence can be regarded as an opportunity in which educators either intervene and re-engage these at-risk youth,

or lose them depending on educators' particular pedagogies—or lack thereof—regarding at-risk students (Gehlbach, Brinkworth, & Harris, 2012; Doll, Brehm, & Zucker, 2014; Munnel McHugh, et al., 2013; Schweisfurth, 2015; Wang & Fredricks, 2014). Furthermore, for children who come from dysfunctional home backgrounds and poorer neighbourhoods, the intervention of the school can be the turning point for many children with few other supports (Gross, 2008; Weare & Nind, 2011).

For the proposed study, a framework of resiliency was used to (1) understand the *students*: the personal attributes, contextual factors, and developmental needs of adolescents and how these relate to resiliency and school engagement; (2) describe the *protective factors* and adaptive processes that foster resiliency in young people; (3) describe the potential challenges and negative experiences that many at-risk students face, referred to as *risk factors*; and (4) explain the common link between a students' vulnerability and successful school achievement: Strengths and risk identification and effective targeted intervention (Greene, 2014). Figure 2 illustrates my conceptualization of the process that leads to school failure and withdrawal.

Figure 2. Conceptual framework of the link between resiliency and school outcomes.



Adolescent Developmental Needs

Adolescents engage in complex self-evaluative processes trying to answer fundamental

questions of who they are and who they want to be (Arnett, 2012, Gill & Thomson, 2012). To answer these questions, adolescents need to make personal connections with peers and teachers and participate and identify with what they are learning and doing in school (Brown, 2004; Lessard et al., 2014; Gehlbach et al., 2011; Goldstein & Brooks; Prince-Emury & Sakloske, 2014; Reschly et al., 2008). Researchers have found distinct components of individual-school connectedness: perceptions of the quality of relationships and a more general feeling of school belonging (Lessard et al., 2010; Lessard et al., 2008). Furthermore, researchers have identified autonomy and interpersonal relatedness as critical components of personality development that underscore school connectedness (Brown, 2004; Luyten & Blatt, 2013). Adolescents need safe learning environments that foster mastery, competence, and autonomy by developing adaptive emotional regulation and interpersonal skills that lead to positive relationships, positive self-esteem, and self-efficacy (Benard, 2004; Doll, et al., 2014; Hattie, 2013; Prince-Embury, 2007; Rathus & Miller, 2015).

Protective Factors and Resilience

Resiliency is the ability to rebound from *adversity*, which has been defined as the presence of significant events or circumstances (e.g., risk factors) that increase the likelihood of a negative outcome for the individual (Benard, 2004). Protective factors are those influences that minimize the risk of negative life outcomes that can result from being exposed to adversity (Benard, 2004; Everall, et al., 2006; Goldstein & Brooks, 2013; Masten, 2011; Luthar & Brown, 2007). Various protective factors have been categorized throughout resiliency research as *individual*, *interpersonal*, and *contextual* factors. Individual protective factors include cognitive functioning, which involves problem-solving, reasoning, emotional intelligence, an internal locus of control, high self-efficacy (i.e., perceiving that one can achieve success), a sense of purpose and optimistic outlook, support-seeking behaviors, positive self-concept and self-esteem, creativity, and competence (Goldstein & Brooks, 2013; Dweck, 2006; Everall, et al., 2006; Hattie, 2013; Lessard, et al., 2008; Lessard, et al., 2010).

Interpersonal factors include family attachments, positive relationships with supportive nonparent adults, positive relationships with peers and social competence (Brown, 2004; Doll, et al., 2014; Lessard, et al., 2014), and positive perceptions of student-teacher relationships (Everall, et al., 2006; Gehlbach, et al., 2011; Lessard, et al., 2010). Contextual factors include positive home environments, positive school climates and classrooms, and involvement in

positive community organizations (Doll, et al., 2014; Henderson, 2007; McLeskey, Waldron, & Redd, 2012).

Research supports the argument that teachers are perceived as critical protective factors that can have a significant impact on an individual's future outcomes (positive change agents) because teachers' beliefs and commitments to students can have significant influence on student success (Doll, et al., 2014, Hattie, 2013; Toshalis, 2011). Hattie (2013) argued that teachers have major impacts on student learning (effect size of $d = .72$): Out of the 150 factors Hattie identified in his research, student-teacher relationships ranked twelfth; therefore, it is essential that teachers develop positive relationships with at-risk students using empathy, non-judgmental acceptance, and validation (Linehan, 1993).

Furthermore, researchers have identified several evidence-based practices that can support at-risk students at school: (a) caring *for* students by encouraging their goodness as people, nurturing their social, emotional and academic growth, and helping them understand happiness through modelling, dialogue, attention, practice, and confirmation (Brown, 2004; Doll, et al., 2014; Gill & Thomson, 2012; Noddings, 2006; Toshalis, 2011); (b) culturally responsive classroom management through communicating in culturally responsive ways (Bondy, Ross, Gallingane, & Hambacher, 2007; Pennington, 2007; Shevalier & McKenzie, 2012); (c) establishing clear expectations for student behavior and success (Hattie, 2013); (d) recognizing the importance of incorporating student emotions in comprehensive models of student engagement (Brown, 2004; Luthar & Brown, 2007; Prince-Emury & Sakloske, 2014; Reschly, et al., 2008); (e) effortful engagement in which the teacher actively, authentically, and deliberately engages the student on an interpersonal level (Hattie, 2013; Munnel McHugh, et al., 2013); and (f) educators seeing themselves as *warm demanders* who establish a caring relationship that convinces students that they believe in them, have high expectations and fully expect all students to learn (Ware, 2006). Educators who are dedicated to meeting the needs of all students create school climates that foster positive relationships among students and staff (Egan & Schroeder, 2009; Gill & Thomson, 2012). Furthermore, education, training, and professional development programs need to intentionally provide explicit opportunities for educators to develop these skills and practices (Doll, et al., 2014; Egan & Schroeder, 2009; Hattie, 2013; Lessard, et al., 2014).

All these protective factors are linked—improvements in one leads to improvements across others—and these changes add momentum to the overall resilience process (Goldstein & Brooks, 2013).

Potential Risk Factors

A motivational-needs interpretation of a student's engagement or disengagement behavior in school is that behavior reflects a perception that school is or is not a place where one experiences a sense of safety, competence, autonomy, and/or positive connection to others (Deci & Ryan, 2000; Luyten & Blatt, 2013; Milyavskaya & Koestner, 2011).

Over time, these perceptions develop into strong motivational dispositions and related patterns of interpretations, also known as relational schemas (O'Dougherty Wright, Crawford, & Del Castillo, 2009), of the self and environment. Students determine whether or not to continue investing in a relationship with others based on evaluations of whether psychological and developmental needs are fulfilled (Lessard, et al., 2014; Lessard, et al., 2008; Lessard, et al., 2010). Thus, students engage or disengage in such a manner as to effect change in their environment with the goal of satisfying needs or coping when those needs are not fulfilled (Gehlbach, et al., 2012; Wang & Fredricks, 2014).

School-interfering behavior is often reactive, often stems from avoidance coping (Herres, 2015), and can be interpreted as either protective reactions to adverse or stressful situations or attention-seeking behaviors (Choate, 2012). Underlying these reactions may be intense perfectionism (Flett et al., 2014), a need for validation by family, peers, and significant adults (Fortune et al., 2008; Linehan, 1993) and/or maladaptive means for expressing distress (Choate, 2012). At-risk students can be understood as motivated to avoid or protest being forced into situations in which they cannot cope effectively (Reschly, et al., 2008), or as motivated to seek validation (Rathus & Miller, 2015). For at-risk students, many school environments are perceived as *invalidating environments* (Jacob, Suveg, & Whitehead, 2014; Linehan, 1993), and therefore, considered aversive (Lessard, et al., 2014; Lessard, et al., 2008). Under such circumstances, these individuals can be expected to react by trying to protect themselves from such unpleasant situations, thoughts, and feelings. In effect, the behavior reflects efforts to cope and may manifest as one of myriad acts school-interfering behaviors (Choate, 2012; Jacob et al., 2014). Subsequently, school-interfering behaviors can be distressing for teaching staff to deal with, making the student-teacher relationship strained and alienating the student even further.

In the school setting, educators' assumptions and expectations in reaction to school-interfering behaviors can result in treating students differently (Toshalis, 2011) and therefore, reduce the engagement of the student who does not receive the support that he or she perceives their peers receive, particularly when the students themselves are attuned to these differences in

treatment (Munnel McHugh et al., 2013; Sosa & Gomez, 2012). As a result, students experience anxiety, apprehension, and alienation in this invalidating environment (Rathus & Miller, 2015), and this may discourage any subsequent attempts to form a bond with the teacher or other students and to engage in future academic tasks. Thus, begins the negative action-reaction cycle of escalating behaviors that can lead to school dropout (Lessard et al., 2014; Norman, 2011; Rathus & Miller, 2015; Wang & Fredricks, 2014).

Self-Harm

One specific area of troublesome behavior is self-harm (including cutting, burning, scratching, and drug use). Self-harm behaviors have been categorized in the research as either deliberate avoidable non-suicidal self-injuries (NSSI) without intent to die often with the goal to relieve distress, punish self, escape, or gain attention (Nock & Favazza, 2009), as cited in Nock (2010); or suicide attempts, which are self-injurious behaviors with or without explicit or inferred intent to die (Miller, Rathus, & Linehan, 2007). Highly dysregulated adolescents often engage in self-harm behaviors as a "last-resort" coping mechanism to manage their distress (Geddes, et al., 2013; Miller et al, 2007).

The inability of knowing how best to manage these situations may be one of the many reasons staff may choose to avoid or ignore self-harm. This may also be one of the reasons why teachers may want to refer self-harming students to specialists as soon as possible so that they do not have to deal with it in school. Teacher responses to self-harm may include alarm, panic, anxiety, shock, and feeling scared and distressed themselves leaving teachers feeling anxious about their ability and competence to cope, which can result in hasty referrals to relieve themselves of the responsibility (Norman, 2011).

Identification and Intervention

Educators' assumptions and expectations for students are based on their training and experiences; therefore, educators not only need to increase their awareness of the unique dynamics of at-risk students, they also need effective toolkits to correctly identify them and minimize their risk factors (Augustyniak et al., 2009; Norman, 2011). A relevant finding is the difficulty that educational staff may have in articulating what constitutes school-interfering and self-harm behaviors if the behaviours are not visible in school, or when visible, which behaviours would be considered interfering with academic achievement. Many educators only recognize "severe" externalizing behaviours, which creates concern—if staff recognize only these

behaviours, those "less severe" internalizing behaviors may go unnoticed and escalate to more serious clinical levels resulting in self-harm (Norman, 2011; Simm, Roen, & Daiches, 2008).

In terms of management, this then poses further problems and has a substantial impact in terms of interdisciplinary intervention and support. If educators are not responding to some behaviours based on their interpretation of severity, other relevant professionals may not be alerted. This indicates further training needs for professionals to raise awareness and work more collaboratively (Norman, 2011; Weare & Nind, 2011). If the gap between educators and other professionals widens, the well-being of adolescents will be negatively impacted:

> "Parallel working can create a problematic divide because if pupils spend time in targeted support sessions and the teachers are not involved, they may wrongly assume the problems has been solved. These problems can then be exacerbated and present in further behaviours, which remain misunderstood by teaching staff" (Spratt, et al., 2006), cited in Norman (2011, p. 32).

A further concern is that staff members may be informed only on a *need-to-know* basis if a young person is self-harming (Best, 2006). From a safety perspective, this is unacceptable: If a child is at risk of harm, all professionals involved in their care should be informed. However, this logically raises the issue of confidentiality (CPA, 2001). Norman (2011) made the following recommendations for future practice to address the issue of adolescents who self-harm:

- There is often confusion among teaching staff about what constitutes self-harm.
- Current understanding of many educationalists is based on physical presentation and stereotypes.
- It is important that staff do not ignore self-harm when it is suspected.
- A proactive approach to offer support when self-harm is suspected should be encouraged.
- There is a clear need for the further training of teaching staff in self harm, as well as in recognizing early warning signs.
- Inter-professional approaches are important in dealing with self-harm in the educational setting.
- Emotional well-being and self-harm should be included in PSHE sessions.
- School nurses could play an important role in training educationalists and relevant nonteaching staff in schools and ensure that adequate information is available (p. 32).

Finally, once at-risk students are identified, targeted interventions utilizing a group setting have been found to be the most effective for teaching the skills necessary for managing anxiety, developing positive interpersonal relationships, and effective problem solving in and out of school (Delucia-Waack, 2006; Rathus & Miller, 2015). There are hundreds of interventions and programs for at-risk adolescents; however, the research suggests that many of these have not been evaluated (Weare & Nind, 2011), and most interventions are provided outside the school environment in outpatient settings, which can lead to accessibility issues for many students (Norman, 2011; Rathus & Miller, 2015), as well as retention issues (Courtney & Flament, 2014; Mehlum et al., 2014). More importantly, there is the question of what is being provided in the schools and who is providing these interventions. What is the rationale for what is provided, to who it is provided, where it is provided, and who provides it? Because the Saskatchewan Ministry of Education does not mandate an RTI framework for serving at-risk students, it is up to teachers and counsellors to determine how to best serve the needs of these students, which can result in them being underserved (Kemp-Koo, & Claypool, 2011; Weare & Nind, 2011).

The first step toward assessing the support strategies for at-risk students is to have a clear understanding of what these individuals actually perceive to be resources and risk factors in terms of their individual experiences. Fortune, Sinclair, and Hawton (2008) argued that "the views of those engaging in self-harm behaviour is essential if community-based prevention strategies are going to be implemented that can begin to meet the needs of these individuals" (cited in Norman, 2011, p.28). Without seeking the views of the service users, professionals can only surmise what they consider those needs to be (Jaunzems-Fernuk, 2015; Norman, 2011; Schiller & Einarsdottir, 2009).

Interestingly, adolescents view their families, peers and schools as possible avenues for support and prevention, despite the complexities associated with the fact that these are often defined as a predisposing factor in emotional dysregulation. Having someone within the educational system who can listen to problems seems to be a key area of need. Concerns from adolescents regarding confidentiality if they disclose self-harm was also evident in the research (Fortune et al, 2008). In general, adolescents prefer a non-teaching member of staff as a point of contact for support and advice, as well as a more inter-disciplinary delivery of support in the education setting. In terms of training and education, the provision of school-based group intervention programs would be beneficial (Augustyniak et al., 2009; Norman, 2011; Weare & Nind, 2011). A more proactive approach to tackling self-harm was also suggested—if self-harm

were suspected, these students should be approached and offered support to help prevent escalation of the problem, as opposed to staff waiting for the student to seek out help (Fortune et al, 2008).

School counselors may be in the best position to provide evidence-based interventions in the school setting (Kemp-Koo & Claypool, 2011); however, many of the counselors who are employed in Saskatchewan schools do not have graduate-level education and training that is consistent with other provincially regulated psychology-based professions (Saskatchewan School Counselors Association, 2012). This leads to a major ethical concern for our at-risk students: Are school professionals currently doing more harm than good (Norman, 2011)?

Three-Factor Model of Personal Resiliency and Related Interventions

Prince-Embury (2007) developed this model for practical application and is based on previously identified personal attributes that reflect a relationship among three core developmental systems: Sense of Mastery, Sense of Relatedness, and Emotional Reactivity. The model assumes that the individual "child's experience mediates between external protective factors and positive behavioral outcomes" (Prince-Embury, 2014, p. 26).

Sense of Mastery

Interventions that target the development of mastery need to focus on (a) enhancing perseverance, (b) developing adaptability, and (c) creating hope. Identifying one's strengths and developing positive self-expectations, breaking tasks down into more manageable steps and addressing one step at a time, and developing the ability to recognize accomplishments and reward oneself are strategies that will develop a sense of competence and self-efficacy that underscore one's sense of mastery. During adolescence, acceptance and approval by significant others becomes deeply connected to competence, and can influence one's motivation to engage in social situations if they perceive any negative judgment. Additionally, competence is closely connected with hope. When adolescents can experience more success than failure, they develop more positive expectations (hope). When adolescents have a strong sense of mastery, they are more motivated to interact with their environment in meaningful ways and are more likely to be successful in school because they believe they will be.

Sense of Relatedness

Luthar (2006) stated, "Resiliency rests, fundamentally, on relationships" (p. 780). Relatedness is based on a combination of trust: thoughts and expectations about the trustworthiness of others; perceived access to support (as opposed to actual support) from others;

comfort with others: one's experience with others resulting from past experiences with others, and tolerance: belief that one can safely express differences within a relationship. Interventions designed to enhance a sense of relatedness need to develop a sense of accessible social support, provide a trusting therapeutic relationship, develop social skills, and enhance empathy. "Helping children to better understand the perspective of others and the impact of their own social behavior will ultimately improve their ability to relate to others and develop positive relationships with others" (Prince-Embury, 2014, p. 33). The goal is to reduce conflict, improve relational competence and expectations, and to increase positive engagement at school.

Emotional Reactivity

This factor represents three constructs of emotional regulation: level of sensitivity, recovery, and impairment and is the most significant to the current research project because decreasing emotional reactivity may allow an adolescent to utilize his or her other attributes of resiliency more effectively. An individual's level of sensitivity is his or her "threshold of tolerance" (p. 33) prior to distressing events, and related difficulties regulating the speed and intensity of emotional reactions to these events (Prince-Embury, 2014). Recovery refers to how quickly after a strong emotional reaction a person returns to normal functioning. Impairment refers to "the extent to which intellectual or executive functioning can retain relative autonomy in periods of stress as opposed to being disrupted and overridden by emotionality" (Prince-Embury, 2007, p. 13).

Interventions targeting emotional reactivity focus on an adolescent's ability to (a) reduce sensitivity: increasing self-awareness of emotional triggers, communication skills to express difficulties, and intentional monitoring, anticipation, and management of reactivity; (b) recover once upset—often referred to as emotional regulation: and include breathing exercises, self-soothing, self-talk, and relaxation strategies; and (c) preventing or reducing impairment: learning behavioral management skills. "[Y]outh's adaptive behavior may be interrupted by emotional upset leading to poor judgment due to inability to process information properly, interrupted relationship ability manifested in withdrawal, inappropriate social behavior, or impulsive acting out" (Prince-Embury, 2014, p. 34).

DBT-A as a Targeted Evidence-Based School Intervention.

DBT-A group skills training was chosen for the current research project because it is a targeted intervention designed to address the areas of emotional dysregulation and related resilience and personal resiliency factors discussed previously. Standard DBT is a structured

psychotherapy incorporating individual therapy, skills training groups, telephone support, and a consultation group for therapists (Linehan, 1993). DBT is based on the biosocial theory in which symptoms of Bipolar Personality Disorder (BPD) are the result of a dysfunctional emotion regulation system associated with instability of thoughts, emotions, behaviors, relationships, and self-image. Furthermore, emotional dysregulation is the result of the interaction between a biological predisposition to emotional sensitivity and an invalidating environment. DBT proposes that acquiring skills to regulate intense emotional distress will lead to reductions in both life-threatening behaviors and quality-of-life-interfering behaviors; and therefore, the treatment program incorporates mindfulness, emotion regulation, distress tolerance, and interpersonal effectiveness skills.

DBT has been shown to effectively target emotional dysregulation and associated behaviors that occur across a range of psychological disorders from asymptomatic to severely dysregulated (MacPherson, Cheavens, & Fristad, 2013), and may range from serious behaviors such as suicide, NSSI, high-risk sexual behaviors, disordered eating, illicit drug use, and binge drinking to less severe problem behaviors such as anger problems, school avoidance, and frequent relationship breakups (Rathus & Miller, 2015). DBT conceptualizes these problem behaviors as resulting from emotional dysregulation or an attempt to cope with dysregulation (Rathus & Miller, 2015); therefore, with its emphasis on behavioral targeting, DBT can be applied across various behavioral symptoms of many DSM-5 disorders such as Depression, Anxiety, BPD, Bipolar Disorder, and Conduct Disorder (Groves et al., 2012; Ritschel, Lim, & Stewart, 2015). DBT's flexibility and adaptability are due to its emphasis on balancing change and acceptance strategies and its conceptualization of emotion dysregulation as the common element in emotional suffering and maladaptive problem-solving strategies (Rathus & Miller, 2015; Ritschel et al., 2015).

Since its creation, numerous random controlled trial (RCT) studies have shown that DBT is associated with greater reductions in self-harm behaviors (Gibson, Booth, Davenport, Keogh, & Owens, 2014) including a recent RCT by Mehlum and colleagues (2014) and a recent meta-analysis of RTCs (Ougrin, Tranah, Stahl, Moran, & Asarnow, 2015). However, because the full DBT program requires considerable time and resources to implement, shorter and less intensive versions of the treatment have been developed and examined (Groves, et al. 2012; Rathus & Miller, 2015), particularly the effectiveness of a DBT skills-training-only group without other aspects of the original treatment (Gibson et al., 2014). Furthermore, Rathus and Miller (2015)

have developed an adaptation of DBT specifically for the treatment of adolescents: Dialectical Behavior Therapy for Adolescents, or DBT-A.

Rathus and Miller's (2015) DBT-A is a modification of Linehan's (1993) Standard DBT based on characteristics inherent to adolescents, who differ from adults regarding context and cognitive and emotional developmental levels. Additionally, the language and appearance of skills training materials were modified to enhance accessibility for adolescents. A fifth module called *Walking the Middle Path Skills* was added to target issues that can arise when working with teens and their families (for a comprehensive discussion of DBT-A, see Rathus & Miller, 2015). This module was not used in the current research project. The rationale for using DBT-A is: (1) Recent DBT studies have tended to use child/adult measures that were found to be insensitive to adolescent symptomology (Geddes et al., 2013), (2) The efficacy of using DBT-A in a school setting for reducing self-harm and school-interfering behaviors and increasing emotional regulation in at-risk adolescents has only recently gained researchers' attention (Rathus & Miller, 2015); (3) "…research is needed to determine whether group skills training alone may be effective as a stand alone treatment for some adolescent populations" (Groves et al., 2012, p. 72), and (4) there are very few Canadian studies available. The advantage of using DBT-A is that it provides a standardized and replicable set of materials that can be applied in a school setting to a broad range of adolescents across various diagnoses and behavioral problems who present with emotional and behavioral dysregulation (Rathus & Miller, 2015).

DBT with Adolescents

Within an RTI framework, DBT can be an effective secondary prevention strategy. Programs are intended to prevent full-blown mental health disorders for at-risk adolescents characterized by mild or early indicators of mental health needs (depression, anxiety, family conflict, problems at school, and problems with executive functioning). DBT treatment goals at this level include:

- increasing the adolescents' capabilities by teaching specific skills for self-regulation, interpersonal effectiveness, distress tolerance, and balanced, flexible thinking and problem-solving,
- Structuring the environment to motivate, reinforce, and individualize appropriate use of skills,

- Improving motivation to increase use of new skills, reduce use of dysfunctional behaviors, and identify factors that maintain problem behaviors and inhibit more adaptive ways of responding, and
- Encouraging the generalization of skills from training context to other areas of life. (From Miller, Rathus, DuBose, Dexter-Mazza, & Goldklang, 2007).

It is critically important to understand the nature of emotional dysregulation experienced by at-risk adolescents that makes them vulnerable to developing clinical disorders if untreated. Figure 3 summarizes the areas of dysregulation and the DBT skills modules designed to address each area. The overall objectives of the intervention were to (a) teach a specific set of skills to students that would increase their coping resources and reduce their vulnerability to emotional dysregulation that causes impaired functioning at school; (b) provide an opportunity to form new social connections; (c) provide a positive psychological experience based on validation and acceptance; (d) increase self-awareness, self-esteem, and self-efficacy; and (e) reduce anxiety and depression-related symptoms. These objectives are based on DBT's principles, key areas and characteristics of dysregulation, and corresponding treatment modules as outlined in Figure 3 (Rathus and Miller, 2015).

The DBT model (Linehan, 1993) is organized around three core principles: Mindfulness, dialectics, and behavior change. Mindfulness focusses on acceptance strategies:

- Observing situations and emotions without reacting,
- Being present in the moment without judging or thinking about it, and
- Participating in life's moments without fear of judgment.

Fear and lack of self-acceptance are common factors in emotional dysregulation. Lack of self-acceptance relates to placing negative value judgments on oneself, one's emotions and experiences, and others. These judgments become obsessive—constantly thinking and worrying about what others think: How do I look? How am I doing? What are others thinking of me? Individuals become fearful of negative judgments and this obsessive pattern of thoughts and worry can prevent individuals from participating in normal, everyday experiences. Mindfulness strategies focus on decreasing unhealthy attempts to control, suppress, or avoid intense emotions related to fear and lack of acceptance.

Figure 3. Adolescent Dysregulation and DBT-A Treatment Modules. From Linehan (2015).

Dysregulation	**Description/Characteristics**	**DBT-A Skills Module**
Emotional	Emotional vulnerability, reactivity, and lability; angry outbursts, steady negative emotional states such as depression, anger, shame, anxiety, and guilt; deficits in positive emotions; and difficulty in regulating emotions	Emotion Regulation
Interpersonal	Unstable relationships, interpersonal conflict; chronic family disturbance; social isolation, efforts to avoid abandonment; difficulties getting wants and needs met in relationships; difficulty maintaining self-respect in relationships.	Interpersonal Effectiveness
Behavioral	Impulsive behaviors such as cutting classes, chronic disturbances in class, spending recklessly, risky sexual behavior, risky online behavior, binge eating/purging, risky alcohol and drug use, aggressive behavior, NSSI and suicidal behaviors.	Distress Tolerance
Cognitive	Inflexible or rigid thinking and acting (extremely polarized black/white); poor perspective taking and conflict resolution; invalidation of self and others; and difficulty effectively influencing own and others' behavior (obtaining desired changes).	Wise Mind
Self	Lacking awareness of emotions, thoughts, and action urges; poor attentional control; unable to reduce one's suffering while also having difficulty accessing pleasure; identity confusion; sense of emptiness; and dissociation.	Core Mindfulness

Dialectics relates to the ability to synthesize opposing views and focusses on strategies that develop flexible thinking and problem-solving capabilities. Many dysregulated individuals struggle to consider alternative ways of seeing themselves, their situations, and others (perspective taking), and are unable to create effective solutions to solve their problems. Dialectics focus on moving these individuals away from rigid thinking and behavior patterns to more realistic, adaptive thinking and behavior patterns. Dialectical thinking integrates key mindfulness principles: Not letting emotion get in the way of doing what needs to be done to reach personal goals and doing what is needed for the situation you are in—not the situation you wish you were in.

DBT uses a variety of behavioral change strategies to reduce maladaptive behaviors and develop more skillful behaviors that incorporate mindfulness and dialectic principles. These are

skills training, cognitive restructuring, behavior monitoring and analysis, solution analysis, contingency management, and exposure strategies. Group skills training provides the opportunity to learn and practice new skills in a safe and supportive environment that focusses on acceptance, validation, modelling of adaptive behaviors, and promoting positive relationships (Linehan, 1993, 2015; Pederson, 2017; Rathus & Miller, 2015).

Summary of Literature

Until the emotional and relational needs of at-risk students are addressed, success in the classroom will be minimal at best for these students (Martin & Dowson, 2009). The implication of Weare and Nind's (2009) systematic review of current research is that a positive holistic pedagogy of school-based intervention is needed that addresses:

(1) Identification of at-risk students and targeted evidence-based interventions that teach skills and develop competence;
(2) High-quality implementation that has a sound theoretical base, direct, intense, and explicit focus on desired outcomes, explicit guidelines (possibly manualized), and complete and accurate implementation adherence;
(3) Delivery by a team of well-qualified individuals and supported by teachers and peers; whole-school, multi-component approaches;
(4) Positive school climate and culture;
(5) Parental support;
(6) Appropriate age and stage of development;
(7) Balance between targeted and universal approaches; and
(8) Appropriate length and intensity of interventions and evaluations.

Because DBT-A group skills training addresses these issues, it may be an effective school-based program delivered within a holistic pedagogy that develops at-risk students' personal, interpersonal, and contextual resources of resiliency. Furthermore, if Saskatchewan high schools can provide programs such as DBT-A skills training, we may begin to effectively increase school achievement levels for all students and prevent the negative life outcomes of dropping out of school (Goldstein & Brooks, 2013).

Chapter 3: Research Design and Methods

Research Design

Convergent Parallel Mixed-Methods Design

The current research project utilized a mixed-methods design using multiple case studies to provide a comprehensive picture of at-risk students' resiliency profiles as they relate to school achievement. Creswell and his colleague (2007) define mixed methods research as follows:

> Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative approaches in many phases in the research process. As a method, it focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone.

Quantitative data collection involves closed-ended information that behavior or personality instruments and surveys provide while qualitative data collection involves open-ended information provided by interviews and narrative stories. This study used a *Convergent Parallel* design (Creswell & Plano Clark, 2011) that merged together quantitative data (emotional and behavioral measurement) with qualitative data (individual and group interviews) to provide complementary results from different sources. "The convergent design occurs when the researcher collects and analyzes both quantitative and qualitative data during the same phase of the research process and then merges the two sets of results into an overall interpretation" (p. 77).

This design of this study was guided by a pragmatic worldview, which simply is about "what works" to address the research problem. Neither a quantitative nor a qualitative design alone could identify, measure, and quantify the risk and protective factors that impact resiliency and inform interventions while still giving a voice to the students' subjective experience of the intervention itself. The purpose of this design was to use qualitative results to illustrate the quantitative results. Utilizing both types of data provided a more complete picture of our at-risk students and therefore, informs a more effective model for intervention. Only a convergent parallel design could achieve these goals.

My study involved independently collecting and analyzing the two data strands and then integrating them during the interpretation phase with a variation on the timing of collection and analysis. Quantitative data was collected before and after the intervention, while qualitative data was collected before, during, and after the intervention. The resiliency profiles integrated the quantitative and qualitative data and the overall themes provided further evidence for the integrated findings of the profiles. A description of the process is described next.

Phase 1: Collection of quantitative data. I met with all student participants in a classroom. This session was part of the orientation phase of the program and was held during lunch time. I provided each student with a BASC-3 questionnaire and a pencil. I explained the instructions and answered any questions students had. Students completed the questionnaires within that hour period and completed questionnaires were collected. A debriefing was provided that included answering any questions students had regarding the purpose of the questionnaires. A second session was also scheduled for the following day at lunch time to complete the Resiliency Scales for Children questionnaires. I provided students with the questionnaires and pencils. They completed these within the hour and I collected them. Once again, I provided a debriefing to answer any questions.

Phase 2: Collection of qualitative data. Once the pre-intervention data was collected, the intervention phase of the study began. Over the next 12 weeks, I collected observation data from sessions, work samples, field notes, and emotional and behavioral observation data from teachers and administrators. Upon completion of the 12-week intervention, I proceeded to the next phase of the design process.

Phase 3: Collection of post-intervention quantitative and qualitative data. I scheduled two sessions once again to complete and collect post-intervention BASC-3 and Resiliency Scales for Children questionnaire. I followed the same procedures as in Phase 1. Then I scheduled separate individual interviews with each student. Four students agreed to do the interviews while three students declined due to studying for final exams. For those students who agreed to be interviewed, I scheduled a time that was convenient for them given their final exam schedules and provided them with a copy of the interview questions to read and get comfortable with. I did this to give them time to reflect on their experience in the program and to prevent them getting nervous during the interview from feeling "put on the spot." I met with them individually in my office, ensured they were comfortable, and reviewed the informed

consent process with them. They provided permission to be videotaped and then I conducted the interview. Interviews lasted between 40 minutes and one hour in length.

An invitation email was sent to all teacher participants to attend a teacher focus-group interview. Three teachers and the school counsellor agreed to and were available to be interviewed. We met in my office and the informed consent process was reviewed. They consented to be videotaped and then I conducted the interview. This took approximately one hour.

Once the new school year began in September, I contacted the remaining three students and requested an individual interview. They agreed and I scheduled these within the first two weeks of school. I followed the same procedure and used the same question guide as the first four interviews; however, we met in the same room as the skills training group was held because I no longer had an office space. The students appeared very comfortable in the space and I also intended that it might trigger increased recollection of their experience in the program. These also lasted between 40 minutes and one hour.

Phase 4: Quantitative data analysis. This phase involved scoring the BASC-3 and Resiliency Scales for Children. I used computer scoring for the BASC-3 and hand-scored the Resiliency Scales. I then read and re-read the computer-generated reports for the BASC-3 to familiarize myself with the BASC-3 results. I did not have similar reports for the Resiliency Scales; however, I referred to the Resiliency Scales manual and created a similar summary of the results. I then created separate summary tables for the BASC-3 and Resiliency Scales. These included pre- and post-intervention composite, index, content, and sub-scale scores for each student, which provided a visual comparison of pre- and post-intervention results. I then calculated Confidence Intervals for each score to determine whether any changes in students' scores were due to intervention or simply to measurement error.

Once I completed my summary tables, I combined both BASC-3 and Resiliency Scale results to create a line graph for each student using the composite and index scores to highlight major areas of emotional and behavioral functioning. I used a line graph to provide a snapshot of the emotional and behavioral functioning of each student and illustrate the changes from pre- to post-intervention.

Phase 5: Qualitative data analysis. Interviews were transcribed verbatim by me and copies of the transcripts were given to the participants to review to ensure accuracy, make any revisions, or remove any responses they were not comfortable including. Once participants were

satisfied with their transcripts, they signed a data release form (Appendix M) and I collected the transcripts and the signed forms. I then analyzed the transcripts using Braun and Clark's (2006) *thematic analysis.* A detailed description of this process is provided later in this chapter.

Phase 6: Integrating the data and discussion of results. Once I analyzed the interviews, I combined these results with the line graphs created in Phase 5 to create a *Resiliency Profile* for each student. Interview extracts were used to interpret and discuss each student's profile and then overall themes were identified and discussed to further illustrate the profiles and relate them back to the research questions. These are discussed in Chapter 5.

Participant Sampling and Recruitment

I employed purposeful sampling for my study. Patton (2002) argued that "the logic and power of purposeful sampling lies in selecting *information-rich* cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the inquiry" (p. 77). At-risk adolescents were considered appropriate for the current study based on the following criteria:

Inclusion Criteria

- Aged between 13 and 16 years,
- Average academic ability based on school records,
- Referred to the program due to emotional dysregulation that interferes with normal functioning at school,
- Meet the criteria of *at-risk student* as defined for the purpose of this study,
- A minimum of three school-interfering behaviors as defined for the purpose of this study: family conflict, conflict with teachers, substance use, school absenteeism, NSSI, property damage, physical harm to others, illegal activities, high-risk sexual behaviors, disordered eating, failing classes, unstable peer relationships, and avoidance behaviors.

Exclusion Criteria

1) A primary diagnosis of a psychotic disorder,
2) A diagnosis of intellectual disability, and
3) A primary diagnosis of substance abuse.

I chose these exclusionary criteria because I felt that such individuals would require a more tertiary level of intervention that the current project was not intended for, and such an

intervention was not the current study's intended purpose. Furthermore, I felt that the more seriousness nature of needs for such individuals would impact the quality of program delivery and care I could provide for the included students and possibly impact study results. Including these criteria would have made interpretation of findings much more difficult in terms of ruling out their impact on emotional and behavioral functioning.

Secondary teachers who were considered appropriate for the study were: (a) certified and currently employed at the designated High School, and (b) worked directly with the participants in a teaching role and as part of the interdisciplinary team that directly supported participants. A principal and vice-principal, who also played a key role in the interdisciplinary team, was also included in the study. The School Counsellor who was considered appropriate for this study possessed a Masters-level graduate degree in School and Counselling Psychology and was currently certified by the Canadian Counselling and Psychotherapy Association. She also had 30 years' experience working in a high school counselling role. I felt having graduate training in counselling was a critical inclusion criterion because many high school counsellors do not possess graduate training in counselling. Being a graduate student myself, as well as having worked with vulnerable youth and understanding their needs, I understand the necessity for such training when working with this population and I didn't feel that a counsellor without such training would have the knowledge, sensitivity, or skills to assist with the implementation of the intervention, given the complexity of the project.

To recruit participants who meet the criteria for inclusion in this study, a list of nineteen potential students was created based on recommendations from school counsellors, Learning Assistance Teachers, and School Administrators as well as information gained from weekly team advisory meetings that consulted on students who were struggling academically, behaviorally, emotionally, and/or socially. I mailed an invitation/information letter (Appendix A) to participants' parents and emailed the same to those members of the interdisciplinary team for each participant. This letter included the inclusion criteria and provided a phone number and email for responding to my request. Ten responded and agreed to participate. Once agreeing to participate, I emailed a consent form (Appendix D) that outlined my study and its goals with sufficient disclosure of program information to ensure that all participating in this study do so voluntarily (Truscott & Crook, 2013). I also provided an Assent letter for the students to sign (Appendix L). After the first session, one participant moved away. After second session, her best friend also left the program. After the third session, another student chose to leave the

program, leaving a final participant count at seven. These seven students remained for the duration of the study.

Methods

DBT-A Group Skills Training Intervention Procedure

The 12-week DBT-A group skills training program was modified from Rathus and Miller's (2015) 26-week program. First, only the skills training component was included rather than the comprehensive DBT intervention that includes individual counselling, telephone consultation, skills training, family treatment, and a DBT therapist consultation team. Furthermore, Rathus and Miller's program includes a fifth module, *Walking the Middle Path*, which is aimed at building relationships between adolescents and their parents. Implementing such a comprehensive program was beyond the personnel, financial, and time resources available in the school setting. There are several studies that asserted the effectiveness of modified versions of DBT for adolescents (Courtney & Flament ,2015; Groves et al., 2012; Miller, Rathus, & Linehan, 2007; Rathus & Miller, 2002; 2015), and I only located one study that used DBT skills training as a 4-week stand alone intervention in an alternative school setting (Ricard, Lerma, & heard, 2013). Additionally, I consulted the school counsellor as she had almost 30 years experience and was extremely knowledgeable about the challenges of implementing group interventions in the high school setting. The result of my research and consultations was a 12-week group skills training as a stand-alone intervention.

The main factor influencing my decision was the potential start date and subsequent time available to deliver as many of the skills outlined in Rathus and Miller's program as possible. By the time I gained approval from both the university and the school board, it was already early March leaving just over three months to deliver the program and collect post-intervention data. I wanted to include at least three skills from each of the four main modules to cover as many possible skill deficits that I anticipated the students having. This was not an ideal situation; however, it speaks to the realities that often impact school intervention delivery: Time. The original program needed to be shortened to work within the school year so 12 weeks was determined to be reasonable since I was still able to teach most of the skills included in the original program in that time.

The modified DBT-A group skills training program was delivered as either a single two-hour session or two one-hour sessions over a 12-week period for a total of 24 hours of skills training instruction. A schedule of sessions is outlined in Appendix B. Each session included

introduction of new skill, in-session practice, weekly assignment of homework practice, and homework review. Frequent practice of skills was encouraged in and outside of sessions. Each student also received a duo tang to organize lesson materials for each session and to supplement their learning and practice outside of sessions. Students were encouraged to bring these to each session for review and discussion of homework. Handouts were also provided for those skills that were not covered, yet considered useful as additional resources for the students.

Session rotated through the weekly academic schedule and utilized noon-hour sessions to reduce the frequency of missed core classes. The school division Superintendent required a maximum of only three missed periods for each academic subject. Four modules of DBT-A were included and specific skills within each module were presented and taught as follows:

1. Orientation to DBT (Week 1)
    a. What is DBT?
    b. Goals of skills training
    c. DBT skills training group format
    d. Biosocial Theory and DBT assumptions
    e. Skills training group guidelines and Commitment Contract (Appendix C)
2. Mindfulness Module (Weeks 1 through 12)
    a. Awareness and Attentional control
    b. States of mind
    c. "What" and "How" skills
    d. Importance of practicing everyday
3. Distress Tolerance Module (Weeks 3, 4 and 5)
    a. Crisis survival skills
        i. Wise Mind ACCEPTS
        ii. SELF-SOOTHE with Six Senses
        iii. IMPROVE the Moment
        iv. Pros and Cons
    b. Reality Acceptance
        i. Choices we can make
        ii. Practice Strategies
4. Interpersonal Effectiveness Module (Weeks 6 and 7)
    a. Keeping and maintaining healthy relationships—GIVE skills

b. Getting somebody to do what you want—DEAR MAN skills
c. Maintaining your self-respect—FAST skills

5. Emotional Regulation Module (Weeks 8 and 9)
    a. Purpose of emotions and goals of emotion regulation skills training
    b. Accumulating positive experiences
    c. Building Mastery and Coping Ahead skills
    d. Check the Facts and Problem-Solving skills
    e. Opposite Action to change emotions skills
6. Module Review and Practice (Weeks 10 and 11)
7. Field Trip and Group Wind-up (Week 12)

Each session followed the format outlined in the manual, which included recording attendance, a brief mindfulness exercise, homework review, break, introduction of new skills and concepts, homework assignment, and session wind-down. A list of mindfulness exercises was also included in the manual. The manual also outlined the procedure for each session making it easy for the group facilitator to lead the session activities and discussions.

Prior to each session, I prepared by reviewing the session outline to familiarize myself with the discussion and activities, photocopied and organized the required handouts for the students, and selected a mindfulness activity. Additionally, not all skills in the manual could be taught due to time restrictions, so some skills were replaced by others that were more relevant to the group dynamics, or additional interactive activities were included to supplement learning and practice of the current lesson such as social games to enhance understanding of concepts (Emotional Jenga to learn about emotions, for example). While it was important to adhere to the manual, some flexibility in session delivery was required to maximize the utility of the intervention and benefit overall learning of skills (Groves et al., 2012; Rathus & Miller, 2015). Furthermore, the nature of adolescent group interventions requires having contingency plans for those times when participants become non-responsive, bored, overly animated, dysregulated, or overwhelmed by the material. The manual provided several strategies and suggestions to manage these situations.

Most sessions were conducted in a conference room in the school library that provided privacy for the students since it was in a corner away from the main student areas and the door could be locked. The first two sessions were held in a regular classroom; however, this resulted in scheduling conflicts and issues of privacy. One session was held outside on school property

(to enhance a mindfulness activity and demonstrate the SELF-SOOTHE skill). The field trip took place at a mini golf center followed by lunch at a local pizza restaurant. During noon hour sessions, pizza lunch was provided for the students to maximize session time and avoid waiting for students to purchase lunch at the cafeteria, or go to lockers and get their lunches, and then come to session. These sessions were viewed as opportunities for students to practice their new communication skills and develop relationships in a more natural setting while still providing the safety of the group.

Quantitative Measures

There are myriad assessment tools available for measuring behavioral and emotional functioning so determining an appropriate tool for this study was no easy undertaking. Having done extensive research on resiliency and related interventions, as well as educational research and related drop-out prevention interventions, I concluded that the Behavioral Assessment for Children (Reynolds & Kamphaus, 2015) and Resiliency Scales for Children (Prince-Embury, 2007) were the most appropriate measurement tools to use. There were several factors that I considered in my decision: (1) my research questions, (2) proven efficacy, reliability, and validity; and (3) attention and perseverance of students to complete them. First, I felt that while the BASC-3 provides a very comprehensive picture of behavioral and emotional functioning at school, it lacks a significant measure of resiliency. The Resiliency Scales on the other hand provide a well-researched and valid picture of the mechanisms underlying resiliency, but lack specific behavioral and emotional function measures. Answering my second and third research questions required combining the two to provide a much more comprehensive understanding of a student's behavioral and emotional functioning and the resiliency factors that may or may not mediate it. Second, both are theory-driven and have been put through rigorous validity and reliability testing unlike many study-driven tools that are designed for a single study and not rigorously tested. Third, my understanding of at-risk students' potentially limited attention, focus, and perseverance meant choosing measures that could be completed in a timely fashion without losing the students' engagement with the measure: completing the questionnaire with intent versus simply answering to get through it.

Resiliency Scales for Children (RSC). This self-report measure consists of three scales designed to evaluate three constructs prominent in developmental theory and resiliency research: Sense of Mastery, Sense of Relatedness, and Emotional Reactivity. The Resiliency scales are designed to identify areas of perceived strength and/or vulnerability. "Each scale is designed to

reflect one of these core areas and the implied system of underlying mechanisms that mediate between the environment and the child's internal experience" (Prince-Embury, 2007, p. 9). Each scale consists of 20 to 24 questions about things that happen to people or things that people think, feel, or do, and each item is rated on a 5-point Likert scale from 0 (Never) to 4 (Almost Always). Good criterion validity and concurrent validity have been reported.

The RSC-A provides a *Resiliency Composite*, as well as a *Resource Index* and a *Vulnerability Index* score, which are plotted on a line graph to provide a visual picture of an individual's overall resiliency profile. The Resiliency composite reflects an individual's perception of resources relating to their sense of mastery and relatedness, as well as their level of emotional reactivity. The Resource and Vulnerability indexes estimate and quantify the interaction between an individual's personal attributes of mastery and relatedness and his or her vulnerability to emotional reactivity. Each student participant completed an RSC-A both prior to and after completion of the skills training intervention. T-score classification ranges will be discussed in more detail in Chapter 5.

The Behavioral Assessment System for Children 3 (BASC-3). The BASC-3 provides a comprehensive picture of behavioral and emotional functioning in children and adolescents across home, school, and community contexts. This assessment system provides information that can guide clinical diagnosis and/or the need for additional educational supports and services (Reynolds & Kamphaus, 2015). The BASC-3 was chosen because of its many features that maximize utility, efficiency, and efficacy:

- Comprehensiveness of behavioral and emotional domains that are supported both theoretically and empirically,
- Identification of behavioral and emotional strengths and deficiencies,
- Developmental sensitivity to differences in behaviors across age levels,
- Multiple sources of information,
- Strong scientific rigor,
- Ease of administration and scoring,
- Inclusion of response validity scales to identify dissimulation, inattentiveness, positive or negative response sets, or lack of understanding.

Two scales were used for this research project: The *Student Report of Personality for Adolescents* (SRP-A) and the *Teacher Rating Scales for Adolescents* (TRS-A). The SRP-A is

personality inventory that adolescents answer in two ways: (a) True or False, and (b) Four-point Likert scale of 1 (Never) to 4 (Almost Always) and takes approximately 20-30 minutes to complete. It reports the thoughts, feelings, attitudes, and internal reactions to people and events as they reflect the personal experiences of the adolescent. The TRS-A reports specific and observable behaviors in different settings at school and assesses both broad and narrow-based behavioral and emotional domains and adaptive and maladaptive functioning. Teachers respond to items using a four-point Likert scale ranging from 1 (Never) to 4 (Almost Always), and the form takes approximately 10-15 minutes to complete (Reynolds & Kamphaus, 2015).

Student participants and their teachers each completed the SRP-A and TRS-A, respectively, prior to and after completion of the group skills training intervention. All BASC-3 responses were summed to create a raw score, which was transformed to a normed total T-score. For clinical scales, higher scores reflect more risk: 41–59 suggests a *normal* level of risk, 60–69 suggests *elevated* risk, and scores of 70 or higher suggest an *extremely elevated* level of risk. For Adaptive scales, lower scores reflect more risk: 41–59 suggests a *normal* level of risk, 31-40 suggests *elevated* risk, and scores of 30 or less suggest an *extremely elevated* level of risk. All norms were created using a nationally representative sample of children and adolescents in Grades 3–12 (Reynolds & Kamphaus, 2007). Summary tables are included in the Appendix section that provide content, composite, and index scale descriptions for both the SRP-A and TRS-A.

Pre- and post-intervention data was collected and analyzed using hand scoring (RSC-A) and analysis software (BASC-3) to identify and changes in emotional and behavioral functioning and identified risk and protective factors. Descriptive analysis involved comparing pre- and post-intervention data.

Qualitative Data Collection

Semi-structured interviews. Upon completion of the DBT-A skills program, I conducted individual semi-structured interviews with student participants who were willing to be interviewed upon completion of the program, had given their informed consent, and whose parents had also provided informed consent. Interviewing is the best technique to use when conducting intensive studies of a few selected individuals because open-ended questions are used flexibly to acquire specific data from all participants (Merriam, 2009). Interviews followed the same format for all seven participants (Seidman, 2006). Two 30-60-minute interviews were scheduled as follows: (1) initial interview to collect a comprehensive picture of the participant's

involvement with the program, (2) second interview for participants to review their narrative transcripts, and to make additions, deletions, or changes to reflect the accurateness of the transcripts and ensure that they authentically represent participants' experiences. This final interview was also an opportunity to withdraw any part of the narrative that they were not comfortable having included in the final printed report and to have participants choose a pseudonym (Merriam, 2009; Siedman, 2006; Woodcock, 2005).

An interview guide was used (Appendix L), which included predetermined questions to explore thoughts, opinions, values, feelings, perceptions, and overall experience of the DBT-A program with each respondent (Gall, et al., 2007; Merriam, 2009). These questions attempted to anchor the interviews in the purpose of my study, identify potential themes of resiliency, and to give a voice to participants and provide a richer picture of their experiences (Hayes & Singh, 2012; Schiller & Einarsdottir, 2009), which aligns with the goal of exploring a modified DBT-A group skills training program in-depth.

The interview questions themselves were developed based on Woodcock's (2005) narrative study on school counsellor development in the school setting. The author used a narrative approach (Hays & Singh, 2012) to capture the lived experiences of her participants, and while the research topic and data analysis were different than my study, her interview questions provided a useful model from which to develop my own interview questions that would reflect my pragmatist epistemology. What ultimately resulted were questions that aimed to: (1) learn about the participant as a person, (2) learn about the participant's experiences as a high school student, and (3) learn about the participant's experiences in the group intervention. The questions were pilot tested with three students not related to this study to ensure participants' clarity of understanding and for me to practice my interview skills to ensure smooth delivery.

Validity and trustworthiness of research required that I maintained a clear boundary between myself as the counsellor and as the researcher when conducting interviews with the students. Because I was also a counsellor to four of the students prior to the project, it was critical that I maintained a position of neutrality and objectivity when asking questions. As a researcher, credibility of results was achieved by conducting interviews while maintaining a consistent "not knowing" perspective. Treating each student as though we hadn't met prior to Mind Matters ensured not only that questions were asked in the same manner across all students but also that the same responses would be generated by another researcher conducting the interviews. Such neutrality speaks to the fidelity of this research project.

Teacher focus group interview. A focus group interview (FGI) involving three teachers and a counsellor was conducted following the completion of the program. Kress and Shoffner (2007) suggested that FGIs can be well-suited to uncover information about the effectiveness of counselling programs and interventions for several reasons:

1. FGIs allow for greater data collection from multiple participants using fewer resources. This was not the sole reason for using FGIs in this study.
2. This format often serves as a catalyst for disclosure, connecting with others, and expanding on or challenging perspectives in a synergistic manner.
3. This format can provide insight on the attitudes, beliefs, and experiences of individual participants in an interactive setting.

Conversely, it is important to be aware of the disadvantages to FGIs. There is likely pressure to fit into the group, such as sharing socially-acceptable responses or other efforts at conformity; therefore, it is critical that facilitators be careful not to allow the FGIs to represent the voices of only a few individuals. Additionally, FGIs do not offer the same depth of data that individual interviews offer. Interview questions (Appendix N) were open-ended to encourage candid discussion but also to direct the conversation towards the first research and third research questions.

Video Recording. The interviews were video recorded because it was important to know the experience of participating in a DBT-A program in a high school setting so that any significant issues can be clearly described and understood. Video recording provides a complete record and can be studied in-depth by several data analysts and coded independently. Video recording also makes the interview process much more efficient because it avoids the need for extensive note taking allowing the researcher to make reflective notes throughout the interview (Gall, et al., 2007). I was also aware of the potential risk of loss of recorded data when using video recordings; however, the benefits of recording outweighed the risks. It was important to me that I had accurate data when transcribing and analyzing the interviews. Video recording the interviews allowed me to watch the interviews after transcribing them to ensure I captured students' physical communication in addition to their verbal responses. This allowed me to identify any sensitive issues indicated by body language that may not be captured on audio recordings. I felt it was critical to recognize when not to "dig deeper" and cause any harm to the students. Because these students trusted me, many revealed sensitive information for the first time during the intervention and were not necessarily ready to discuss this further in an interview

setting and I didn't want to destroy that trust. For this reason, a second interview with follow-up questions was not pursued.

Facilitator field notes and artifacts. These included facilitators' session notes and observations, classroom observations by teachers, session attendance and work samples. These items were reviewed on an ongoing basis throughout the program to monitor changes in participants' overall functioning at school and to make reflective notes about myself as both the facilitator and the researcher, the students, the intervention delivery process, and the research process as a whole.

Qualitative data analysis Procedure.

I transcribed verbatim the interviews to ensure closeness to the data, and I used member-checking to confirm accuracy and completeness, ensure consensus between participant and myself, and determine how to represent the transcript in text (Hayes & Singh, 2012; Woodcock, 2005). Furthermore, I followed the recommendations of Kvale and Brinkman (2009), Lapadat and Lindsay (1999), and Poland (1995) to ensure accurate and thorough transcription.

Following the recommendations of Braun and Clarke (2006), I then conducted thematic analysis to identify repeated patterns of meaning from the experiences of all participants. I chose this method because I was interested in both surface and interpretive analysis of themes and because it was appropriate for my pragmatic research epistemology: I wanted to interpret motivations, experiences, and meaning in a straightforward way (Braun & Clark, 2006). Thematic analysis has been recognized as a qualitative method that "can provide a rich and detailed, yet complex account of the data" (Braun & Clarke, 2006, p. 78). I employed inductive coding (e.g., codes that are generated directly from the data) by first segmenting the data into meaningful analytical units and then assigning these segments of data with symbols, descriptive words, or category names (Johnson & Christensen, 2012).

Phase 1: Familiarizing myself with the data. Because I was the facilitator of the skills training group as well as the researcher, I could "immerse myself in the data" and become "familiar with depth and breadth of the content" (Braun & Clark, 2006, p. 87). I read the interviews several times while creating the quantitative summary tables, line graphs, and resiliency profiles, and I made notes in the transcripts as I read them. Keeping a reflective journal throughout the research process also allowed me to stay connected with the research questions. This allowed me to start generating ideas for codes long before I began the actual process. Once I was ready to search for themes, I read each interview and simply highlighted

extracts (words, phrases, sentences, or groups of sentences) if they were interesting or meaningful without making any notations about them.

Phase 2: Generating initial codes. Using a semantic approach, in which the "themes are identified within the explicit or surface meanings of the data and the analyst is not looking for anything beyond what a participant has said or what has been written" (Braun & Clark, 2006, p. 84), my first task was to generate a list of ideas from the highlighted extracts about what made them interesting. I read through each interview a second time and wrote down my ideas, creating an initial list based on my highlighted extracts. A third reading involved relating the ideas generated back onto the highlighted segments to check for *fit*: How well does the idea capture the extract's meaning? This was intended to narrow down the ideas into meaningful groups of data. Some ideas from my initial list were removed and some new ideas were added. From this list, I generated an initial list of codes. A fourth reading of the transcripts involved matching the highlighted extracts to the codes and checking for fit once again. This process refined my list of codes further by removing any redundant codes or those that didn't capture the meaning of group of data. I then collated the extracts together with each code to ensure the data extracts illustrated the codes' definition and that all data extracts had been coded. This process generated a final list of 35 codes.

Phase 3: Searching for themes. My task in this phase was to sort the codes into themes. I used a mind map, which is simply a visual representation of the connections between the codes, themes, and possible sub-themes. This phase involved several rounds of mind map refinement. Round 1 was to generate general themes that relate to the research literature. Round 2 involved checking for fit with the codes and generating additional themes that captured the meaning of the codes that didn't fit any other theme. This process resulted in eight broad themes.

Phase 4: Reviewing themes. This phase involved refining the eight themes further by checking for fit between the data extracts and the themes: Do the extracts illustrate the theme? It's critical that data within themes relates in meaningful ways, known as internal homogeneity, and that there are clearly identifiable distinctions between themes, known as external heterogeneity (Patton, 1990) as cited in Braun and Clark (2006, p.91). This required reading the collated extracts to ensure they form a coherent pattern within each theme. A second step in this phase involved reading all the interviews to ensure that my potential themes "accurately reflect the meanings evident in the data set as a whole" (p. 91). This process generated five overall

themes: Personal challenges and strengths, connections to others, connections to school and learning, psychological challenges and strengths, and capacity for personal growth.

Phase 5: Defining and naming themes. This phase involved deciding what aspects of the data each theme is attempting to describe and determining any possible sub-themes within the main themes. It was also important that the themes "fit into the broader overall story that [I] am trying to tell about [my] data in relation to the research questions" (Braun & Clark, 2006, p. 92. This process resulted in one of my main themes, connection to school and learning, having four sub-themes: social needs, learning needs, connection to teachers, and expectations. Chapter 5 includes a description and discussion of the overall themes.

Researcher's Position

My role in this study as an instrument of data collection was to engage in the data collection and get as close as possible to the participants' understandings of their experiences and reflect on myself as a researcher in this process. Researchers as instruments must explain their biases, dispositions, and assumptions regarding their research to allow the readers to better understand how researchers have arrived at their interpretation of the data (Merriam, 2009). The reason is for the reader to understand how the researcher's values and expectations influence the process and conclusions of the study (Maxwell, 2005).

Being both researcher and practitioner in this study required constant monitoring of my own subjectivity. It was critical to be consistently mindful of the line between counsellor and researcher. During skills training sessions, my role was a counsellor so it was important to connect with the students on a personal level; however, beyond sessions, my role was a researcher so it was critical that I keep an objective approach especially during data collection regarding the individual interviews. This was an ongoing challenge for a novice researcher such as myself and it required regular consultations with my research supervisor. Additionally, my ethical responsibilities to the students were a constant guide: Will this decision do more harm than good?

Trustworthiness of Research

I employed several strategies and procedures to ensure the trustworthiness of my research. To ensure contextual completeness, I strove to describe the contexts, significant events and their implications, perceptions, and meanings, and was attuned to the fact that participants do not speak with a unified voice (Gall, Gall, & Borg, 2007). To ensure transparency of my research methods, I employed bracketing and reflexivity to my research. "Bracketing typically

refers to an investigator's identification of vested interests, personal experience, cultural factors, assumptions, and hunches that could influence how he or she views the study's data" (Fischer, 2009, p. 583). Reflexivity "means that researchers reflect about how their biases, values, and personal background, such as gender, history, culture, and socioeconomic status shape their interpretations formed during a study" (Creswell, 2014, p. 247). I used a reflective journal to discuss my role in the research, assumptions, world views, theoretical orientation, ideas, and attitudes toward the phenomenon being studied (Gall, et al., 2007; Hayes & Singh, 2012). I recorded reflective notes throughout the research process (Creswell, 2014) to assist me with my data analysis, to help me describe my research process, and to record my thoughts regarding how the participants, data, and analysis are impacting me personally and professionally (Hayes & Singh, 2012). My journal provides an audit trail to ensure trustworthiness of my research: Reflective information includes the researcher's personal account of the course of inquiry and may contain reflections on such elements as the methods of data collection and analysis, ethical dilemmas and conflict, and the observer's frame of mind along with emerging interpretations (Gall, et al., 2007, p. 281).

Ethical Considerations

The most important consideration guiding my study was for the respect for the dignity of persons involved in the research (CPA, 2001). The duties of protecting confidentiality and respecting the autonomy of the research participants were integral to my research; therefore, it was critical that participants be offered the opportunity to consent or decline to participate and withdraw if they chose to (Truscott & Crook, 2013). The Principle of Responsible Caring also expects that researchers analyze the risks and benefits of their studies, and only do work that maximizes benefits and minimizes harm (CPA, 2001). It was critical that the findings of the research were reported accurately, honestly, and without using any personally identifiable information obtained in confidence about research participants. Additionally, sharing the study's results with participants including full disclosure of its limitations speaks to the integrity of the researcher and of the research methods used (Truscott & Crook, 2013).

Responsible caring also influenced my approach to the individual interview process. Although the proposed study was to include two interviews, I decided not to pursue a second interview based on my overall experiences with the students during the 12-week program and observations from the first interviews. I became aware that I was working with some extremely personally sensitive issues; therefore, I concluded that pursuing additional information through a

second interview would violate this principle, causing more harm than benefit for the students as probing further may have caused unnecessary emotional distress that students may not have been prepared to address at the time. I also concluded that the information shared in the first interview was sufficient to answer my research questions.

To ensure confidentiality, I requested permission to videotape the interviews before each interview. I also had participants sign a *Data Release Form* (Appendix O) before drafting the final report (Truscott & Crook, 2013). Before proceeding with any part of my research, this proposal was submitted to the University of Saskatchewan Behavioral Research Ethics Board for approval (Appendix N). Once my study was approved, my research supervisor, who is highly knowledgeable about the study's methods, was consulted throughout the study to ensure quality implementation of my methods. Dr. Tim Claypool oversaw data collection and analysis to ensure these ethical issues were handled effectively and to ensure that participants had a positive experience (Truscott & Crook, 2013).

Chapter 4

Delivering a DBT-A Group skills Training Intervention

In their review of 32 studies examining the efficacy of school-based interventions to prevent dropout, Abrami and his colleagues (2008) found that 70% focussed only on attendance outcomes to determine efficacy while only 17% focussed on improving psychological outcomes, 3% focussed on social or behavioral outcomes, and 3% focussed on learning effects. Furthermore, they found that "a recurring theme across the full range of findings was an underlying emphasis within the program design on creating a positive psychological experience for learners" (p. 64-65). A major criticism of previous efficacy research was that researchers were concerned more about *did* the intervention work rather than, *how* and *why* the intervention worked or didn't work, and failed to consider the instructional and contextual features that may have moderated program effectiveness (Abrami et al., 2008). Given the emphasis on positive psychological outcomes, it makes sense then to discuss intervention programs not only in terms of these outcomes, but also in terms of the personal characteristics of participants and unobservable factors (like motivation), contextual features of the programs such as peers, family, and school climate, and instructional features of the program such as sequence of instruction, structure of activities, structure of assessment, role and extent of support staff involvement, content of learning materials and activities, and individual differences among students that impact a program's psychological outcomes (Abrami et al., 2008).

The main goal of the current research project was to identify and explore the benefits and challenges of implementing a secondary-level target intervention for at-risk students. A modified DBT-A group skills training group aimed at addressing emotional dysregulation-related symptoms was implemented. Wilson and Tanner-Smith (2013) found that implementation quality significantly correlated to treatment outcomes: "the particular program strategy chosen makes less of a difference in eventual program outcomes than selecting a strategy that can be implemented successfully by the school (p. 370).

The overall goals of the skills training program were to (a) teach a specific set of "life skills" to students that would increase their coping resources and reduce their vulnerability to emotional dysregulation that caused impaired functioning at school; (b) provide an opportunity to form new social connections; (c) provide a positive psychological experience based on validation and acceptance; (d) increase self-awareness, self-esteem, and self-efficacy; and (e)

reduce anxiety and depression-related symptoms (Rathus & Miller, 2015). The outcomes of the group skills training intervention are significantly correlated with how effectively the program was delivered (Wilson & Tanner-Smith, 2013) to meet its goals and positively impact students' resiliency to persevere and remain in school. If the program could be delivered effectively to achieve these outcomes, it follows then that these students would stay in school, become more engaged with their learning, and ultimately graduate.

Research Question 1: What opportunities and challenges did participants experience with the implementation of the modified DBT-A group skills training intervention?

It was important to understand my experience as the facilitator of the group regarding the challenges and opportunities of delivering a group skills training group to vulnerable students. Without knowing what factors impacted the delivery of the program, any reliable conclusions about delivery effectiveness can not be drawn. Furthermore, future research could benefit from understanding the instructional and personal characteristics involved in the process of delivering drop-out prevention interventions (Abrami et al., 2008).

Working with participants. I renamed the DBT-A (Rathus & Miller, 2015) intervention "Mind Matters" for two reasons: (1) the name reflects the significance of the mindfulness and dialectic principles (flexible thinking) that underscore DBT, and (2) it was much easier for participants in the project to refer to and remember *Mind Matters* than *DBT-A group skills training*. This decision was proven effective when, several months after completion of the program, both students and teachers referred to the Mind Matters program when challenging situations arose in the classroom and they requested a brief review of specific skills learned to address those challenges.

Before the program began, I met with 10 potential students on March 20 in a general classroom to outline the research project and to discuss confidentiality, voluntary participation, group behavior norms, session format and scheduling, and assessment measures, as well as to ask questions about the project. I then provided an orientation to DBT-A, the 12-week intervention, program assumptions, modules, skills, and their rationale. Then, group members who were willing to participate were asked to sign a commitment contract which outlined the group norms, confidentiality expectations, and attendance expectations (Appendix C). Nine students signed a commitment contract.

The first session was held March 23 in which all 10 students completed the BASC-3 and RSC-A scales. Once these were completed, a brief mindfulness activity (writing down present thoughts) was introduced followed by an icebreaker activity to introduce the group members to each other and start the process of developing rapport with group members. As expected, participation was cautious with students saying very little. Three students refused to participate, except to give their names. Their defensive body language and lack of interest made the remaining seven students noticeably uncomfortable, which affected the overall success of this initial session. Reminding students of their commitment contract helped somewhat; however, the group was still anxious. I changed gears and introduced an activity that required little talking but plenty of interaction and cooperation. Students needed to work cooperatively to balance and lower a broom handle without grasping the handle itself. Two groups were formed to make the task easier. While the same three students attempted minimally to engage and quickly withdrew, the remaining students became very engaged in problem-solving efforts and discussion and laughter ensued.

Establishing and maintaining a safe and trusting environment was a critical component throughout the program, but even more critical for the first few sessions. It was therefore important to address the three students whose experiences during the session were difficult and to validate them. It was crucial that they didn't leave the session feeling negative about the group, but rather that what they were experiencing was normal in group settings and that their participation was meaningful and worthwhile to the other group members. I encouraged all members to practice nonjudgmental acceptance and validation of all group members and modelled this behavior myself throughout the 12 weeks. I ended the session on a positive note by having the group share what they learned from the activity, acknowledging the challenges of being in an unfamiliar group setting with strangers, and relating this back to Mind Matters' objectives of positive experiences and opportunities to develop social connections.

The third session started off with one student, Dawn, leaving the program due to her suddenly moving. This had a very negative impact on another student, Jenn, who apparently was her best friend. The session was immediately disrupted by Jenn's emotional distress. I stopped the session, acknowledged Jenn's distress, and suggested that she meet with the other counsellor. I then asked the school counsellor to take Jenn to her office and provide individual support that I was not able to provide in the session. Since the lesson was mindfulness, I used the situation as a

teachable moment to apply the concepts of mindfulness activity: recognize the distraction, observe it nonjudgmentally, let it go, and return to the present moment. This was a successful lead-in to the remaining activities introduced in the session. I followed up with Jenn after the session to ensure her emotional needs had been met and reminded her how important she was to the group. Unfortunately, by the third session, Jenn had decided not to continue in the program. When I followed up with her, she said she didn't feel comfortable being in the group without knowing anybody and since her best friend was no longer there, she didn't perceive any value for herself by participating in the group.

By the fourth session, a third student, Kyle, left the program due to academic workload. He felt that although he perceived value in participating, he simply could not afford to miss any core academic classes. He was not a strong student academically and he felt the extra time required to make up for missed classes (he didn't believe in doing homework at home) caused him unnecessary anxiety so despite his mom's and my efforts to convince him that the benefits would be worthwhile, I respected his decision to withdraw. Additionally, all students had the right to withdraw from the program at any time as part of their informed consent. Mind Matters had seven students who completed the full program resulting in an overall retention rate of 70%. Groves and her colleagues (2012) examined treatment retention rates for 12 adolescent DBT interventions and found that DBT was "a well-tolerated treatment for adolescents" with retention rates ranging from 63% (Woodberry & Popenoe, 2008) to 90% (Goldstein et al.,2007), as cited in Groves, et al. (2012, p. 72). Although these studies did not involve stand-alone skills training treatments, they provide a starting point with which to evaluate the tolerability and acceptability of a DBT-A skills training in the current study.

The 12-week schedule of sessions was strictly followed with only two adjustments. Teachers were made explicitly clear at the beginning of the program that adherence to the schedule was critical to delivering 12 full sessions (especially considering the fast-approaching year-end); however, if changes needed to be made, there was some flexibility so long as adequate notice was given. There were no issues when the two changes were needed and teachers were very cooperative. The June 1 session was rescheduled to May 31 due to conflicts involving a grade 9 field trip. The June 8 session was shortened from a 2-hour session over periods 2 and 3 to a noon hour session due to exam preparation activities that students needed to attend, and because the full morning of June 10 was scheduled for the group field trip. The June

8 noon session was then used as a discussion and review of the overall program, organizing the students' program materials to ensure they had handouts from any missed sessions, and to discuss the field trip itinerary and objectives.

The format of session delivery as outlined in the manual was closely followed as well. Each session began with a mindfulness activity followed by a homework check and discussion. Two-hour sessions included a 15-minute break and one-hour sessions did not. After the break, the new skill was presented. Sessions were delivered in an order that linked new skills to previous skills and introduced less complex skills before more complex skills. Homework practice was assigned, and the session ended with a fun windup activity that was intended to utilize the new skills. Those sessions delivered over noon hours were treated such that the first hour consisted of a mindfulness activity, homework review and discussion, and windup, and the second hour consisted of a mindfulness activity, learning a new skill, and a windup activity.

Another important consideration was the homework component, which consisted of practicing the new skill, reflecting on it, and writing about it to facilitate development and maintenance of the skills. Mary was the only student who completed all the homework. Emily completed approximately 50%, five students completed approximately 25% and Anna completed no homework. Homework review often consisted of discussions regarding the barriers to completing homework and problem-solving. These discussions were short, but emphasized individual responsibility for learning outcomes. Although I was sensitive to the complex lives of these students that made practice challenging, I consistently encouraged them to practice and reflect on what they learned about themselves to get the most out of the program. I also attempted to have the students collectively create their own reward system for homework completion. As a group, they decided that a pizza lunch would be offered if the whole group completed all homework, suggesting that they be each other's support and resource if needed. While their efforts demonstrated impressive group cohesion and strong bonds, homework completion remained an issue. Many students reported practicing the skills, which was evident in our discussions and activities, but not writing anything down regarding their reflections.

Overall, the average session attendance rate was high (84%). Out of 16 sessions, Karen and Anna both missed five (69%), Emily and Robert both missed three (81%), Andrew missed one (94%), and Mary and Peter missed none (100%). Most absences occurred at the beginning of the program and these were due to confusion about location, dates, and times of sessions

(Karen, Robert, Anna, and Emily). I spent a lot of time "chasing these students down" when they didn't show up for the initial sessions. Other absences were due to personal appointments (Karen), illness (Karen), or being absent from school on those scheduled session days (Anna). Andrew missed one session due to a scheduling conflict with a noon hour practice; however, the issue was resolved for all future sessions. The fact that attendance was perfect for Mary and Peter is interesting and unexpected considering that these two students had the most elevated scores on the BASC-3 and RSC-A. Typically, adolescents who are more severely dysregulated are the most difficult to engage in treatment (Linehan, 2015; Prince-Embury, 2014); Rathus & Miller, 2015; Reynolds & Kamphaus, 2015). Conversely, it's not surprising that Karen and Anna missed the most sessions since these two students were the least engaged in the sessions and their BASC-3 and RSC-A scores were the least improved. Both students perceived the least benefit from the program when interviewed compared to the other group members. Anna also had a high school absenteeism rate.

The high attendance rate in Mind Matters was due to significant effort and skill on my part as the facilitator of the group to keep the students engaged. A major session goal was to make the material relevant to the students' personal experiences. It was critical to be mindful of individual differences and how the instructional aspects of the program aligned with the needs of the students on a session-by-session basis. While fidelity to the DBT protocol is recommended (the structure of the session, learning objectives, and lesson delivery), flexibility and skilled adaptation of learning materials to suit individual experiences was key to keeping students engaged (Rathus & Miller, 2015).

Although I attempted to follow the manual's step-by-step instructions to present key learning concepts to teach the skills, students often found the presentation "boring" and their attention would wander off, or they simply wouldn't respond. I could have chosen to continue to adhere to the manual's instructions for the sake of experimental inquiry; however, this would clearly not have benefited anyone and a learning opportunity would have been wasted. The situation required immediate adaptation, which usually involved me telling a related personal story, which then invited students to share their personal stories and have these connect back to the lesson material. Having one person share an experience while observing acceptance and non-judgement invites others to feel safe doing the same. Catharis (Delucia-Waack, 2006) was the result and what followed was an engaging group discussion about the new skill that included

questions, personal insights, suggestions, and even some modifications. So, while the manual's prescribed steps provided a starting point for the lesson, individual experiences and stories carried the lesson and learning objectives were achieved. It also quickly became apparent that the students needed to be *active* learners rather than passively listening while sitting at the table as I explained the new skills. Many of them reported that this process "felt too much like classroom learning," and they wanted a more experiential approach to the lessons.

There were three sessions where the manual's procedures were replaced with a more experiential activity to meet learning objectives. Session 5 was spent completely outdoors learning and practicing mindfulness and distress tolerance skills, bridging two separate lesson objectives together to better connect the skills and internalize them. Session 5 included an experiential activity in which students held a cup of water while attempting to focus on my instructions for another activity. The activity was intended to illustrate how we hold onto stress and how constantly trying to "manage" it causes further emotional pain and distracts us from achieving our goals. It was used to link distress tolerance and emotional regulation concepts together in such a way as to help students understand their own emotional vulnerabilities. It was very effective in giving the students "a new perspective" about how they each individually deal with stress. Session 11 utilized a common household game to teach students about emotions (Jenga) and what they communicate rather than the prescribed method of teaching the lesson. Mary reported that this activity helped her understand her own emotions and what caused her to react to different situations." Session 14 included playing a very funny child's game (Gas-Out) simply intended to let the students "just be themselves" and to highlight the importance of having positive social and emotional experiences. There was an enormous amount of laughter and it was this session in which Andrew and Robert really "came out of their shells."

Instructional Strategies and Leadership Skills. The instructional strategies and leadership skills used throughout the intervention were chosen based on my extensive professional training, experience working with at-risk adolescents, and Delucia-Waack's (2006) framework for providing psychoeducational groups and were successfully tested in a pilot study implemented in November 2015. These were integrated and used to facilitate the delivery of session content to ensure overall program objectives were achieved. Instructional strategies included role-playing, dyadic work, group work, drawing out, countering, experiential activities, discussion, open-ended questioning, reflection, and debriefing. Leadership skills included

modelling, positive feedback, linking, processing of critical events, interpreting, and check-ins. Additionally, validation and acceptance were critical components of the program, and these were modelled and practiced throughout the intervention. One simple strategy used was to have students greet each other by name and give a compliment as they arrived at the sessions. Prompting was needed initially to help students remember names; however, the students quickly caught on and even reminded other students who forgot to exercise the protocol.

I incorporated both dyadic and group work to engage students in their learning. Role-playing was the strategy of choice and was employed to give students a safe way to practice before generalizing their skills to group work. I always provided a demonstration of the skill to practice and often repeated my demonstration with different students to provide different perspectives and options. Often students would provide teachable moments through their sharing of personal stories and these provided many opportunities to model and learn effective behaviors. As mentioned previously, adaptation and flexibility were paramount to successfully engaging students in learning activities.

Discussion and reflection were used mainly to help students process their learning. Open-ended questions and drawing out techniques were used to elicit *what*, *how* and *why* responses rather than a simple *yes* or *no* to generate deeper exploration of feelings, actions, and behaviors. Countering techniques were used to challenge students' thinking and encourage the consideration of others' viewpoints. Providing hypothetical scenarios to examine beliefs and attitudes is one of these techniques. Reflecting on their own experiences created greater self-awareness, which allowed students to offer each other support, encouragement, and positive feedback because they learned how important it was for them to receive the same. Additionally, processing of *critical events* (Delucia-Waack, 2006) "capitalizes on here-and-now interactions to help members reflect on the deeper meanings of their experiences, better understand their own thoughts, feelings, and actions, and to generalize what is being learned to their lives outside the group" (p. 22). Debriefing was a central component of the windup activities in each session and was used not only to link new learning to previous learning, but also to address any emotional issues, concerns, or questions resulting from the session's activities.

Effective group leadership required linking group members to one another by common strengths, similarities, and goals. For example, linking one student's experience with the concerns of other students and linking individual goals to the goals of the group increased self-

awareness, developed interpersonal connections, and attached meaning to students' experiences. My interpretations of students' experiences also provided potentially deeper level explanations for their experiences, which when considered ignited new perspectives that are part of the change process (Delucia-Waack, 2006). For example, I would often interpret a student's story and link it back to another student's story and ask the student to consider both perspectives when problem-solving and generating solutions. This was one way I directly incorporated the dialectic principles of DBT into the lessons.

Check-ins provided opportunities for members to identify how they were feeling at a given moment during the sessions and during debriefing. It was critical to be observant of potentially distress-causing situations and address them immediately. Regular check-ins were a way to monitor and evaluate students' emotional functioning during the sessions using an anxiety rating scale of 1 (calm) to 10 (unbearable distress). These were also used as a mindfulness skill for students to monitor their level of emotional distress and observe their growth over the 12 weeks.

Group Principles, Processes, and Stages. Instructional strategies and leadership skills used in Mind Matters reflect an understanding of the principles for strength-based group work with adolescents (Malekoff, 2013):

1. Form groups based on members' felt needs and wants, not diagnoses.
2. Structure groups to welcome the whole person, not just the troubled parts.
3. Integrate verbal and nonverbal activities.
4. Develop alliances with relevant other people in group members' lives.
5. Decentralize authority and turn control over to group members.
6. Maintain a dual focus on individual change and social reform.
7. Understand and respect group development as a key to promoting change (p. 50-61).

Each decision regarding how Mind Matters was delivered as a whole and in terms of individual sessions was based on these principles. Creating a group that focussed on acceptance, collaboration, individual needs, going beyond simple talk-and-listen strategies, empowerment of group members, and changing social environments was critical to the program's capacity to act as a change agent for and with the students.

Effective delivery of Mind Matters also required an understanding of the stages of a group's natural developmental process (Bartolomeo, 2009; Malekoff, 2013) and careful planning

to address the challenges that students bring to the group in each stage. Each stage of the process brings a unique set of challenges that need to be addressed. A summary of the *Boston Model* (Bartolomeo, 2009) is provided here. The first stage, *preaffiliation*, involves forming trust within the group. Group facilitators must provide structure to reinforce a sense of physical and emotional safety. This stage is typically challenging for at-risk students who come from unstable family environments. During this stage, students had several issues that were addressed:

- Orientation and structure of the group,
- Approach-avoidant characteristics of relating to one another
- Getting acquainted with each other,
- Learning how the group functions and developing spoken and unspoken norms that will govern the group,
- Exploring fears and hopes within and outside the group and determining if the group is a safe place,
- Clarifying expectations, and
- Identifying personal goals.

The second stage is known as *power and control* and is typically when most participants drop out of the program. In this transitional stage, participants test their limits within the group; therefore, the task was to recognize and work through any challenges that impeded students' abilities to engage and fully participate in the group. Fear, lack of trust, conflict, anxiety, testing norms, evaluating other members, and choosing whether to simply be in the group are some of the issues that I expected. It was critical to demonstrate my commitment to the students in this stage and required me to be sensitive and responsive to students when these issues arose. Stages one and two occurred during weeks 1 and 2.

The *intimacy* stage is characterized by relating to one another in a family-like manner. Participants could be expected to amplify their attempts for attention, either positive or negative. The facilitator's responsibility is to address the positive and negative feelings that accompany the challenges of this stage. Gently asking students to talk about their experiences in greater depth, or if hesitant, having other students respond to the situation was a way to process these critical events and have students learn from them. It was important to provide encouragement and challenge for students in these situations to build their confidence in responding to other members' feedback and allow hesitant members to process their fear while other more assertive

students modelled appropriate participation. Furthermore, involving other students in the problem-solving process promoted independence as well as interdependence among group members and members developed greater trust in the process because insensitive and inappropriate pressure to participate was avoided. Weeks 3 and 4 are likely when this stage occurred.

The *differentiation* stage is when members are actively working toward group goals and objectives. This stage occurred between the fifth and ninth weeks. Group cohesion was clearly emerging as members were students were engaging with each other without concerns of negative judgment. I observed expression of feelings, openly sharing experiences, offering and accepting feedback, challenging each other, generating ideas, problem-solving, and applying skills learned in previous sessions. There was clearly more energy in the sessions and even Anna couldn't help but get involved in the activity of the sessions. I capitalized on the here-and-now learning opportunities that presented themselves during this stage of the group process.

The final stage of group process, *separation*, involves reflection, evaluation, and termination of the group. Weeks 10 and 11 were planned to address the evaluation component and week 12 was the group field trip. This stage was characterized by reflection and generalization of the skills learned. It was also characterized by a sense of sadness upon leaving the group, and enthusiasm for their new friendships moving forward. When asked to compare their present feelings of anxiety compared to when they started Mind Matters, all but Anna reported that theirs was at a 1 or a 2 whereas it was anywhere from 7 to 10 at the beginning. Students were also asked to complete a feedback survey to evaluate the program's effectiveness in terms of their experience in it (Appendix F). Statements regarding effectiveness of strategies and instruction, facilitator skills, discussion and activities, goal attainment, and overall effectiveness were rated from 1 (strongly disagree) to 5 (strongly agree). Open-ended statements regarding potential improvements and something students learned about themselves was also included.

The field trip, which was not part of the manual-based program, was designed to give the students an opportunity to have some fun and apply their new skills while engaging in a common social activity. Students were given card with specific tasks to complete prior to putting on each hole. These tasks required students to use their new skills from the four modules and interact with other students in their given teams. The activities were also intended to further develop

relationships among the students. Two groups were formed, each with a group leader (myself and the participating school counsellor) to guide the completion of tasks, adhere to the overall goals of the trip, and to ensure that the entire experience was positive for the students. I felt is was necessary to end Mind Matters with a positive experiential activity in which the students could experience personal success, joy, and a sense of connection as they transitioned from the group back to their everyday lives.

Researcher Attributes, Skills, and Training. Effectively delivering a comprehensive intervention like DBT-A group skills training requires a highly-trained professional. Graduate level counselling education and training combined with DBT training, group intervention training, trauma training, and several years' experience working with at-risk adolescents provided me with the skills and experience to deliver the proposed Mind Matters program. Without this training and experience, I would not have been able to design the overall intervention, anticipate the treatment challenges that come with this population, effectively plan for those challenges, adapt when needed, and most importantly, be sensitive to the emotional fragility of the students who participated. Furthermore, my training and experience provided a framework within which to determine program delivery methods, participants, goals, objectives, and measurement tools. Finally, without my experience, I would not have the sensitivity, creativity, adaptability, and ability to connect with at-risk students that was required to create the safe and trusting environment that Mind Matters provided. Having trauma experience and training also enabled me to make critical ethical decisions that impacted the well-being of participants.

This intervention project was a complex undertaking that required countless hours of research, planning, and organization from its original conceptualization to choosing appropriate data collection and analysis methods. Mixed-method research requires graduate training and is itself a complex process without the added challenges that come with clinical interventions. As I stated earlier, DBT research has typically been done in clinical and community settings with few studies being done that examine group skills training as a stand-alone treatment in school. Because I have completed extensive training in DBT, I felt comfortable applying it to a school setting. Someone without such training would most likely provide ineffective delivery of the program since they would not possess a strong theoretical understanding of the treatment model. Counselling training, trauma training, psychoeducational group training, and research design

training provide a strong theoretical foundation that guided the overall intervention development and implementation processes. Real-world experiences simply augmented my training.

Personal experience also impacted my ability to connect with the students and form effective working alliances with them, their teachers, and critical staff members at school. Experiencing my own adolescent challenges taught me to be empathetic to at-risk students' needs, to be nonjudgmental, and to accept each student for who they were. I developed these attributes by having positive adults model them when I was in crisis, and now possessing these attributes myself, I could model them for the students in the Mind Matters program.

Given the level of training I drew from, I am not suggesting Saskatchewan school boards dismiss DBT-A group skills training as a viable pedagogy due to lack of trained personnel available to deliver such a program. Instead, I am emphatically arguing for school boards to consider employing high school counsellors who have at the very least graduate-level education and training in counselling theory, adolescent development, and group interventions. DBT workshops are an effective way for counsellors to learn the treatment model's theory, principles, and skill modules such that they would be able to effectively deliver the Mind Matters program. Alternatively, counselling specialists trained using the DBT treatment model could be employed on a contractual basis to deliver the program.

Summary of Challenges and Benefits

There were several positive aspects of the group skills training intervention. These were (1) using the DBT-A manualized program (Rathus & Miller, 2015) to provide a framework within which to teach the skills; (2) skill level of the researcher; (3) the willingness of teachers and staff to collaborate on the project; (4) the participants' openness to learning new skills; and (5) minimal resources needed regarding financial costs to implement the program, instructional materials (paper and photocopying costs to provide the handouts), and space. Any additional costs (pizza, snacks, field trip) were covered by a very generous staff member. The challenges were (1) the timeframe available to deliver the program, which was late March to the end of June, didn't allow for pre-intervention quantitative data to be scored and analyzed prior to program commencement, and it caused post-intervention interviews and measurement completion to be conducted during final exams; (2) adhering to a manualized program presented instructional challenges that left students disinterested and bored; (3) challenges resulting from scheduling sessions around academic timetable and lunch breaks.

Overall, the most significant factor that affected the effectiveness of the program was the period within which it was delivered, although its impact was ultimately minimal due to the collaborative efforts of the students, staff, and researcher. Scheduling sessions took a great deal of planning, organization, and collaboration to ensure the 12-week program could be completed with enough time to conduct interviews and complete the BASC-3 and RSC-A scales. Fortunately, students, teachers, and administration saw the immense value of providing the program and their commitment to make it successful was evident in their willingness to communicate with each other to address any issues that impeded the completion of the program. Furthermore, having time to score and examine the pre-intervention BASC-3 and RSC-A scales before starting the program would have allowed me to identify the specific strengths and weaknesses of the students, which would have allowed me to individualize the skills training thereby making the intervention more effective. It is reasonable to suggest that not all skills chosen were useful for any given student and perhaps fewer skills could have been taught over the 12 weeks. The skills that were included were chosen based on my knowledge of adolescents, emotional dysregulation, and DBT; therefore, I included skills that would be considered more widely applicable to this population.

Chapter 5: Integrated Results

Before discussing the second research question, I remind readers that the 12-week program implemented here was a truncated version of the standard 26-week skills training program of standard DBT; therefore, it was unrealistic to expect significant pre-post intervention changes on the quantitative measures collected. Having said that, it is important to interpret score changes with caution, including those that moved a full classification range. While such improvements towards adaptive functioning may be evidence of the intervention's benefits for at-risk students, validity of the findings require consideration of potential measurement error.

Descriptive Analysis of Results

Interpretation of the summary tables requires a brief review of confidence intervals (CI) and measurement error. Test scores are not perfectly reliable due to multiple sources of error, such as potential errors in testing that exist whenever standardized tests are employed; therefore, a confidence interval, or a *range* of scores, is used to estimate the amount of testing and measurement error related to the score. The standard error of measurement (SEm) is a measure of how much measured test scores are spread around a *true* score if the entire population could be tested. It is an estimate of the amount of error in an individual's observed score and is inversely related to the reliability of the test. Smaller SEm indicates greater reliability and increased confidence that the score reflects the true score and tells you how confident you are in your results. A 95% confidence level indicates that there is a 95% chance that the 'true score' lies within that range of scores.

The BASC-3, which was computer-scored calculated a 95% CI for each scale score and provided a SEm as well. The RSC-A, which was hand-scored, provided a SEm, with which a 95% CI could be calculated. Interpretation of the BASC-3 and RSC-A considered these score ranges when determining whether pre-post score changes were significant, or simply a reflection of normal measurement error. For example, if a score changed one full classification and lies outside the 95% CI (these intervals can vary anywhere between 6 and 18 points), this may suggest that significant change occurred because of intervention effect, whereas if a score changed but remained within the 95% CI, it is possible that no significant change occurred and the change in score is simply a reflection of expected test error. Due to many of the scores being extremely elevated, it is also important to recognize any significant changes that occurred *within* a classification range if the post-intervention scores lie outside the CI. Conversely, scores may

increase/decrease just enough to change classification ranges; however, they may not lie outside the CI, which may suggest the change was due to measurement error and not an intervention effect. Based on these parameters, I discussed only those changes that could be considered significant in each student's individual profiles. Table 1 shows the BASC-3 classification ranges and Tables 2 and 3 show the RSC-A classification ranges.

Table 1. BASC-3 Classification Ranges

BASC-3 Scale and Composite Score Classification Ranges		
T-Score Range	Classification	
	Clinical Scales	Adaptive Scales
70 and below	Clinically Significant	Very High
60-69	At- Risk	High
41-59	Average	Average
31-40	Low	At-Risk
30 and below	Very Low	Clinically Significant

Table 2. RSC-A Resiliency Scale Classification Ranges

RSC-A Resiliency Scales Classification Ranges	
Ranking	**T-Score Ranges**
High	≥60
Above Average	56-59
Average	46-55
Below Average	41-45
Low	≤40

Table 3. RSC-A Resource and Vulnerability Index Classification Ranges

RSC-A Resource and Vulnerability Index Score Rankings based on T-Score Ranges	
Ranking	**T-Score Ranges**
High	≥60
Above Average	55-59
Average	45-54
Below Average	41-44
Low	≤40

Research question 3: What impact did the skills training intervention have on students' emotional and behavioral functioning and overall resiliency capacities? The quantitative data are summarized in tables and have been interpreted within a framework of personal,

interpersonal, and contextual protective and risk factors of resilience as outlined in the research literature chapter. Individual resiliency profiles have been described using an integration of pre- and post-intervention comparisons across composite and index scores and qualitative themes identified in individual interviews. Individual changes across individual scales will not be discussed (unless otherwise warranted), but can be readily identified by referring to the summary tables provided. The BASC-3 SRP-A and TRS-A index and composite scales, as well as the RSA index scales will be highlighted and will include a brief description followed by a general interpretation (cited from Reynolds & Kamphaus, 2015). Overall themes identified from the qualitative data (semi-structured interviews, field notes, observations, and session data) will be discussed following the individual profiles.

BASC-3 SRP-A Clinical and Adaptive Composite Scales

Tables 4 and 5 summarize the pre-and post-intervention clinical, adaptive, composite, and index T-scores of the SRP-A. See Appendix A for BASC-3 scale descriptions. The clinical scale composites, which will be considered risk factors, measure maladjustment and include School Problems, Internalizing Problems, Inattention/Hyperactivity, and an Emotional Symptom Index:

> High scores on these scales represent negative or undesirable characteristics that cause impaired functioning in home, school, peer relationships, or community contexts…Clinical scale scores in the 60 through 69 range are considered At-Risk, and scores of 70 or higher are considered Clinically Significant (Reynolds & Kamphaus, 2015, p.73).

If scores for the clinical scales are in the At-Risk or Clinically Significant ranges, this indicates a serious risk factor. I expected the pre-intervention scores to be in the At-Risk range for all seven students and that the DBT-A intervention would decrease these scores toward the Normal range. The causes for any unexpected results are unknown; however, I could speculate that they may be related to having completed the post-intervention SRP-A during the last week of school in June so the students may have been quite distracted and stressed by final exams.

Table 4

BASC-3 SRP-A Clinical and Adaptive T-score Summary - General Combined Norm Group

	Content and Composite Scales	Pre-Intervention T-scores							Post-Intervention T-scores						
		Karen	Mary	Andrew	Robert	Anna	Emily	Peter	Karen	Mary	Andrew	Robert	Anna	Emily	Peter
Clinical Scales	Attitude to School	57	67	51	52	73	71	74	54	57	43	73	80	60	76
	Attitude to Teachers	58	57	71	45	63	62	60	58	54	58	50	69	60	66
	Sensation Seeking	35	44	46	55	49	69	36	39	53	45	55	66	65	38
	School Problems	50	58	58	51	65	72	58	50	56	48	62	79	65	63
	Atypicality	64	77	61	52	45	74	83	61	84	64	54	48	70	81
	Locus of Control	64	88	62	71	66	65	59	49	81	54	71	71	59	67
	Social Stress	64	85	73	69	55	65	75	62	67	57	64	67	63	81
	Anxiety	75	67	64	62	74	66	87	70	67	45	62	75	62	77
	Depression	77	108	69	79	77	79	103	67	84	49	79	84	56	103
	Sense of Inadequacy	75	66	58	76	82	74	85	71	67	46	69	82	58	79
	Somatization	48	61	76	51	72	57	80	60	54	51	69	75	53	80
	Internalizing Problems	70	86	70	69	71	73	90	66	77	53	71	76	63	89
	Attention Problems	64	72	50	64	74	57	77	58	74	54	68	72	59	77
	Hyperactivity	55	53	46	45	53	66	64	51	66	49	53	53	60	60
	Inattention/Hyperactivity	60	64	48	55	65	62	72	55	72	52	62	64	60	70
	Emotional Symptoms Index	76	93	70	70	78	79	95	72	76	53	67	85	63	92
	Mean *(x)* [a]	62	71.6	60.8	60.4	66.4	68.2	74.9	58.9	68.1	51.3	64.3	71.6	61	74.9
Adaptive Scales	Relations with Parents	43	25	49	61	46	33	43	48	31	54	57	43	51	38
	Interpersonal Relationships	33	31	16	26	28	26	26	31	46	28	36	23	37	34
	Self-Esteem	18	14	40	41	18	14	10	18	34	46	46	18	45	10
	Self-Reliance	48	16	34	50	37	36	34	48	28	37	48	24	36	40
	Personal Adjustment	32	14	30	43	27	21	22	33	31	39	46	21	40	25
	Mean *(x)* [a]	34.8	20	33.8	44.2	31.2	26	27	35.6	34	40.8	46.6	25.8	41.8	29.4
Validity	*F* Index	A	C	C	A	A	A	C	A	A	A	A	A	A	C
	Response Pattern	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	Consistency	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	L Index	A	A	A	C	A	A	A	A	A	A	A	A	A	A
	V Index	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Composite Profile
At-Risk
Clinically Significant

Note. Full Validity Index narratives can be found in Reynolds & Kamphaus (2015, p. 41-47). Validity scores are interpreted as *A* =Acceptable and *C*= Caution.

[a] Mean scores are calculated to show pre- and post-intervention group changes.

For clinicnal scales, a decrease indicates improvement. For adaptive scales, and increase indicates improvement.

The adaptive scales, which will be considered protective factors, measure positive adjustment, and include a Personal Adjustment Index:

> High scores on the adaptive scales represent positive or desirable characteristics and low scores represent possible problem areas…Adaptive scale scores of 31 through 40 are considered At-Risk and scores 30 or lower are considered Clinically Significant. Overall, the adaptive scales tend to have the highest correlations with the BASC-3 Depression, Social Stress, and Sense of Inadequacy scales (Reynolds & Kamphaus, 2015, p.79).

If scores for adaptive scales are low, this would mean that intervention would need to support the development of these protective factors. I expected pre-intervention scores to be in the At-Risk range for all seven students and that intervention would increase these scores toward the Normal range, therefore indicating more adaptive functioning to counter the negative impact of their risk factors.

Emotional Symptoms Index (ESI). The ESI is comprised of six scales to provide a "global indicator of serious emotional disturbance, particularly internalized disorders" (Reynolds & Kamphaus, 2015, p. 83), and is the index that is most significant for the current research project as it not only indicates overall emotional functioning, it also supports the rationale for the DBT-A intervention implemented. Social Stress, Anxiety, Depression, Sense of Inadequacy, Self-Esteem, and Self-Reliance scales comprise this index. Pre-intervention data show that all seven students scored in the Clinically Significant range indicating the presence of serious emotional disturbance that is "broad-based on its impact on the thoughts and feelings of the individual[s]" (2015, p. 83).

A high ESI score may also occur with a high *F*-Index score (Reynolds & Kamphaus, 2015, p. 43-46), which is a scale used to indicate the potential for a participant to portray him or herself in an excessively negative light. Three students had *F*-index scores that were in the *Caution* range as well (Mary, Andrew, and Peter), possibly indicating a negative overall view of thoughts, feelings and behaviors and may indicate extraordinarily high levels of maladaptive behavior or emotional distress in these individuals. A comparison with other SRP-A scales is necessary to determine the validity of these results. Given the high rate of At-Risk and Clinically Significant scores on several of the component scales (Self-Esteem particularly) and at least one other composite (Internalizing Problems particularly) for these students, these results may indeed be interpreted as valid indicators of significant personal risk factors.

School Problems Composite. This composite profile—considered a personal risk factor— broadly measures adaptation to school and includes the Attitude to School, Attitude to Teachers, and Sensation Seeking scales. High scores on this scale indicate "a pervasive pattern of dissatisfaction with schooling, school personnel, and the structure of the educational process (Reynolds & Kamphaus, 2015, p. 82). Composite data show that five students scored in the Normal range, one student scored in the At-Risk range, and one student scored in the Clinically Significant range. However, a closer examination of the scores on Attitude to School scale reveal elevated scores for four students. One student scored in the At-Risk range (*T*=67) indicating a "pervasive discomfort with school" (2015, p. 75), while three students scored in the Clinically Significant range (*T*=73, 71, and 74) indicating "increased risk of dropping out, especially if the individuals have high scores on the Sensation Seeking [*T*=69] and Sense of Inadequacy scales [*T*=82, 74, and 85] and a low score on the Interpersonal Relations scale [*T*=28, 26, and 26]" (2015, p.75).

Internalizing Problems Composite. This composite is "a broad index of inwardly directed distress that reflects internalizing problems a child may experience" (Reynolds & Kamphaus, 2015, p. 82), and it includes Atypicality, Locus of Control, Social Stress, Anxiety, Depression, Sense of Inadequacy, and Somatization scales. I expected all seven students to score in the At-Risk range prior to intervention. One student scored in the At-Risk range and six students scored in the Clinically Significant range, which "almost certainly indicate the presence of substantial problems" (2015, p. 83). These six students also have low Personal Adjustment scores (*T*=32, 14, 30, 27, 21, and 22), which may be an indication that they were emotionally fragile with few coping resources, particularly Mary and Peter. Notably, one student improved two ranges from Clinically Significant to Normal.

The individual scales that comprise this composite are considered personal and interpersonal risk factors because of the potentially negative impact they have on overall emotional functioning if their scores are in the At-Risk and Clinically Significant ranges and how this functioning subsequently relates to functioning at school. It is important to understand the significance of these risk factors since their symptoms are more likely to go undetected or misjudged by teachers, while at the same time their pervasiveness and severity may have a significant negative impact on overall school functioning. Teachers need to learn how to recognize these risk factors early on and interventions such as DBT-A skills training has shown

to be an effective intervention for complex emotional issues, such as these internalizing problems (Linehan, 2015).

Inattention/Hyperactivity Composite. This interpersonal risk-factor composite "represents an aggregated score containing scales most directly associated with ADHD symptomology" (Reynolds & Kamphaus, 2015, p. 83), and include the Attention Problems and Hyperactivity scales. I expected pre-intervention scores to be in the Normal to At-Risk ranges. Three students scored in the Normal range, three students scored in the At-Risk range, and one student scored in the Clinically Significant range. Elevated scores falling in the At-Risk and Clinically Significant ranges warrant further investigation of a diagnosis when considered alongside similar scores on the TRS-A. Individual post-intervention scores changed slightly with a second student scoring in the Clinically Significant range, two students remaining in the At-Risk range, and one student worsening from Normal to At-Risk. Overall, the pre-and post-intervention changes were minimal indicating that the intervention had minimal effect on these risk factors. Potential causes for this will be discussed in Chapter 5.

Personal Adjustment Composite. This personal and interpersonal protective-factor composite is comprised of the Relations to Parents, Interpersonal Relations, Self-Esteem, and Self-Reliance scales. High scores indicate healthy adjustment, while low scores indicate maladaptive adjustment (as opposed to the clinical scales discussed previously). I expected pre-intervention scores to be in the At-Risk range and that intervention would increase these scores one range better. Scores in the At-Risk range indicate difficulties with interpersonal relationships, self-acceptance, identity development, and ego strength. Scores in the Clinically Significant range indicate problems with an individual's support system and coping resources. Additionally, high scores on the Internalizing Problems composite point to serious problems with peer relationships, withdrawal, introversion, thought and feeling suppression, and lack of appropriate outlets to alleviate stress (Reynolds & Kamphaus, 2015). Prior to intervention, one student scored in the Normal range, one scored in the Clinically Significant range, and five students scored in the At-Risk range.

SRP-A Content and Index Scales

These scales are designed to supplement interpretation of the SRP-A scales. Table 5 summarizes the T-scores for the SRP-A content and index scales. Ego Strength is interpreted as an adaptive scale and Functional Impairment Index is interpreted as a clinical scale.

Table 5

BASC-3 SRP-A Content and Index Scale Summary - General Combined Norm Group

		PreIntervention							PostIntervention						
	Content and Index Scales	Karen	Mary	Andrew	Robert	Anna	Emily	Peter	Karen	Mary	Andrew	Robert	Anna	Emily	Peter
Clinical Scales	Anger Control	52	82	58	52	63	78	78	54	80	50	50	56	73	82
	Mania	66	57	55	56	59	63	77	61	61	56	57	59	53	67
	Test Anxiety	73	70	38	47	79	59	75	73	60	47	51	75	47	73
	Functional Impairment	68	81	66	58	77	76	89	63	69	54	70	81	64	86
	Mean (x) [a]	65	73	54	53	70	69	80	63	68	52	57	68	59	77
Adaptive Scale	Ego Strength	27	11	45	42	23	18	16	27	23	46	46	18	45	23
Validity Indexes	*F*-Index	A	C	C	A	A	A	C	A	A	A	A	A	A	C
	Response Pattern	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	Consistency	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	L-Index	A	A	A	C	A	A	A	A	A	A	A	A	A	A
	V-Index	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Index
At-Risk
Clinically Significant

Note. Full Validity Index narratives can be found in Reynolds & Kamphaus (2015, p. 41-47). Validity scores are interpreted as A=Acceptable and C=Caution.

[a] Mean scores are calculated to show pre- and post-intervention changes.
For clinicnal scales, a decrease indicates improvement. For adaptive scales, and increase indicates improvement.

Ego Strength Scale. While not an index score, this scale is important because it measures "the expression of a strong self-identity and overall emotional competence, including feelings of self-awareness, self-acceptance, and positive perception of one's social support network…[and] is a measure of adaptive strength" (Reynolds & Kamphaus, 2015, p. 80). Furthermore, ego strength is associated with an individual's sense of mastery and sense of relatedness—two major constructs of resiliency. Five of the seven students scored in the Clinically Significant range, indicating that these students lack self-confidence and self-acceptance, and perceive a poor social support network. Given the very low scores (*T*=27, 11, 23, 18, and 16), these students may

exhibit depressive symptoms (See Depression scale scores) and may be less responsive to interventions (which may become evident in the pre- and post-intervention comparison discussion later in this chapter).

Functional Impairment Index. This composite consists of a mixture of items from various SRP-A content scales and is a global indication of "the level of difficulty a child has engaging in successful or appropriate behavior across a variety of situations including interaction with others, performing age-appropriate tasks, regulating mood, and performing school-related tasks" (Reynolds & Kamphaus, 2015, p. 83). It is also significant to the current research project because it provides a global picture of a student's overall emotional and behavioral functioning: "Changes in the Functional Impairment Index over time is used to monitor the impact of intervention programs by signifying weakness across many domains of important behavior; these changes are easily plotted and viewed on most BASC-3 automated scoring reports" (2015, p. 84).

Prior to intervention, two students scored in the At-Risk range (T=68, 66) and four students scored in the Clinically Significant range (T=81, 77, 76, and 89) indicating that these students may have pervasive emotional and behavioral problems that adversely affect their ability to manage everyday situations. These students "may meet criteria for clinical DSM-5 classification" (Reynolds & Kamphaus, 2015, p. 84), and therefore, likely require very individualized, targeted interventions. The scores on this index speak to the issue of emotional dysregulation's impact on at-risk students' ability to function effectively at school.

Teacher-Report Scales-Adolescent (TRS-A) Clinical and Adaptive Scales

The TRS-A provides complimentary measures of behavior across school, home, and community settings; however, only the Learning Problems and Study Skills scales are relevant to the school setting (Reynolds & Kamphaus, 2015). These two scales (discussed later in this chapter) are significant to the current research project since they provide support for the research literature regarding at-risk students' adaptive capacity to engage in schoolwork. Tables 6 and 7 summarize the clinical, adaptive, and index T-scores for the TRS-A. The same clinical and adaptive scale interpretive framework of the SRP-A applies to these scales as well. Clinical scales are interpreted as risk factors and adaptive scales are viewed as personal, interpersonal, or contextual protective factors. It's important to note that only six students had a TRS-A completed for them prior to intervention.

Table 6

BASC-3 TRS-A Clinical and Adaptive T-score Summary - General Combined Norm Group

		Pre-Intervention T-scores							Post-Intervention T-scores						
	Content and Composite Scales	Karen	Mary	Andrew	Robert	Anna	Emily[a]	Peter	Karen	Mary	Andrew	Robert	Anna	Emily	Peter
Clinical Scales	Hyperactivity	51	47	41	49	45	–	41	53	49	42	42	55	43	43
	Agression	43	45	45	48	43	–	43	46	48	46	43	48	52	48
	Conduct Problems	43	53	43	43	43	–	46	48	50	43	43	55	43	48
	Externalizing Problems	45	48	42	46	43	–	43	49	49	43	42	53	46	46
	Anxiety	43	58	47	53	82	–	56	41	50	45	53	89	58	69
	Depression	43	56	50	73	55	–	65	45	53	48	73	58	68	83
	Somatization	44	64	71	49	44	–	64	44	72	72	44	49	64	83
	Internalizing Problems	43	61	57	59	62	–	64	43	59	56	58	67	66	84
	Attention Problems	59	60	55	63	62	–	61	62	59	50	60	63	58	63
	Learning Problems	55	55	50	66	57	–	50	52	62	55	57	59	53	50
	School Problems	57	58	53	65	60	–	56	57	61	53	59	62	56	57
	Atypicality	47	56	56	56	62	–	44	50	56	59	50	67	44	50
	Withdraw al	48	64	69	79	77	–	69	51	60	72	72	82	61	69
	Behavioral Symproms Index	48	56	53	64	59	–	55	51	55	54	58	65	56	62
	Mean (x) [b]	48	56	52	58	57		54	49	56	53	54	62	55	61
Adaptive Scales	Adaptability	46	34	42	32	34	–	38	40	36	36	48	34	29	29
	Social skills	45	40	43	33	35	–	29	42	39	40	33	41	40	29
	Leadership	38	36	36	34	34	–	32	29	36	36	32	38	34	30
	Study Skills	36	37	43	35	35	–	38	35	41	44	38	36	39	35
	Functional Communication	48	34	44	33	29	–	42	48	37	37	31	31	38	38
	Adaptive Skills	42	34	40	32	32	–	34	38	37	37	35	35	34	30
	Mean (x) [b]	43	36	41	33	33		36	39	38	38	36	36	36	32
Validity	*F* Index	A	A	A	C	C	–	A	A	A	A	A	C	A	A
	Response Pattern	A	A	A	A	A	–	A	A	A	A	A	A	A	A
	Consistency	A	A	A	C	A	–	A	A	A	A	A	C	A	A

Composite Profile
At-Risk
Clinically Significant

Note. Full Validity Index narratives can be found in Reynolds & Kamphaus (2015, p. 41-47). Validity scores are interpreted as *A* =Acceptable and *C*= Caution.

[a] TRS-A w as not completed for this student. [b] Mean scores are calculated to show pre- and post-intervention group changes. For clinicnal scales, a decrease indicates improvement. For adaptive scales, and increase indicates improvement.

Behavioral Symptoms Index (BSI). This index is derived from the Hyperactivity, Aggression, Depression, Attention Problems, Atypicality, and Withdrawal scales, and indicates an overall level of problematic behavior (Reynolds & Kamphaus, 2015). I expected pre- and post-intervention scores to be in the Normal to At-Risk ranges for all seven students due to elevated scores on Attention Problems, Depression, and Withdrawal scales only. Teachers rated only one student as At-Risk (T=64) prior to intervention and two At-Risk (T=65, 62) after intervention. All other students were rated in the Normal range before and after intervention.

Looking at the SRP-A ESI scores reveals all seven students scoring in the Clinically Significant range. Given these scores, one might expect that the BSI scores would be similar because severe emotional disturbance often manifests as observable problematic behavior; however, while the ESI indicates more serious emotional disturbances, it is particularly related to internalized symptoms rather than externalizing behaviors. Thus, it makes sense in this case that the EMI and BSI scores are very different (many of the BSI content scale scores fell in the normal range as expected). Furthermore, scores on the Withdrawal scale are closer to expected with three students rated as At-Risk (T=64, 69, and 69), and two students rated as Clinically Significant (T=79, 77).

Externalizing Problems Composite. This risk-factor composite consists of the Hyperactivity, Aggression, and Conduct Problems scales and indicates a student's level of disruptive behavior (Reynolds & Kamphaus, 2015). Because the current research project is interested primarily in At-Risk and Clinically Significant scores as they relate to risk factors, no description and analysis of the Hyperactivity, Aggression, and Conduct Problems scales, will be provided since scores on these were in the Normal range and therefore, not considered risk factors. For full descriptions of these, please see Reynolds and Kamphaus (2015, p. 48-50 and 56-57). All seven students scored in the Normal range for all three content scales as well as on the composite both before and after intervention.

While disruptive behavior readily calls the teacher's attention because of its tendency to negatively impact the activities of the teacher and other students, a lack of externalizing behaviors may indicate that these students may go unnoticed by their teachers in the general classroom environment due to their seemingly "normal" behavior. However, these students may instead have internalizing symptoms to the point of being overly compliant and having negative effects on peer relationships (Kamphaus, DiStefano, & Lease, 2003), as cited in Reynolds and

Kamphaus (2015). It is important to look at the SRP-A Internalizing Problems composite as this would in fact be the case here.

Internalizing Problems Composite. Four of the seven students scored in the At-Risk range on the Internalizing Problems composite (*T*=61, 59, 62, and 64), which consists of the Anxiety, Depression, and Somatization scales. In comparison, six out of seven students scored in the Clinically Significant range on the same composite on the SRP-A. As stated in the previous paragraph, these students' behavior is typically not disruptive and may go unnoticed by teachers. Given that the SRP-A scores are more elevated than the TRS-A composite scores, this supports the argument that teachers may not easily detect the internalizing problems that these students bring to school.

School Problems Composite. This risk-factor composite includes the Attention Problems and Learning Problems scales and is an indication of academic difficulties, and motivation, attention, learning and cognition problems that the teacher perceives as interfering with academic achievement (Reynolds & Kamphaus, 2015). Teachers rated two students as At-Risk for school problems (*T*=65, 60). On the Attention Problems scale, teachers rated four students as At-Risk (*T*=60, 63, 62, and 61). Compared to the SRP-A scale, two students score in the At-Risk range (*T*=64, 64), while three scored in the Clinically Significant range (*T*=72, 74, and 77). Teachers rated students slightly better than students did themselves, which again, may speak to teachers being unaware of the severity of students' risk.

Adaptive Skills Composite. This composite reflects personal, interpersonal, and contextual protective factors and includes the Adaptability, Social Skills, Leadership, Study Skills, and Functional Communication scales. It summarizes the adaptive skills of appropriate emotional expression and control, daily life skills, communication skills, prosocial behaviors, organizational and study skills (Reynolds & Kamphaus, 2015). Scores reflect general adaptive behavior at school and at home. Teachers rated five students as At-Risk (*T*=34, 40, 32, 32, and 34) and one as Normal prior to intervention. Scores on the SRP-A Personal Adjustment composite were comparable.

TRS-A Content and Index Scales

Table 7 summarizes the TRS-A Index T-scores and these are interpreted using the same criteria as the SRP-A scales (Resiliency being the only adaptive scale). For the current research,

only the Functional Impairment, Executive Functioning, and the Resiliency scale will be discussed.

Table 7
BASC-3 TRS-A Content and Index Score Summary - General Combined Norm Group

		PreIntervention							PostIntervention						
	Content and Index Scales	Karen	Mary	Andrew	Robert	Anna	Emily [a]	Peter	Karen	Mary	Andrew	Robert	Anna	Emily	Peter
Clinical Scales	Anger Control	43	52	46	53	46	–	46	49	53	46	43	49	65	71
	Bullying	44	47	44	44	44	–	44	44	48	44	44	48	44	47
	Developmental Social Disorders	49	63	63	64	73	–	67	53	64	67	67	77	62	62
	Emotional Self-Control	42	57	50	53	58	–	48	47	53	49	44	60	63	77
	Executive Functioning	56	60	55	63	62	–	61	64	61	55	62	63	62	68
	Negative Emotionality	41	55	46	60	48	–	50	46	51	46	51	57	70	67
	ADHD Probability	55	58	47	64	60	–	53	62	60	48	60	62	51	54
	Autism Probability	54	67	63	60	73	–	63	56	64	65	60	73	57	69
	EBD Probability	45	57	46	61	53	–	51	48	49	46	49	57	55	60
	Functional Impairment	52	64	57	68	67	–	59	55	61	59	65	71	62	69
	Mean (x) [b]	48.1	58	51.7	59	58.4		54.2	52.4	56.4	52.5	54.5	61.7	59.1	64.4
Adaptive Scale	Resiliency	34	34	35	38	32	–	31	32	36	35	35	35	35	30
Validity Indexes	F-Index	A	A	A	C	C	–	A	A	A	A	A	C	A	A
	Response Pattern	A	A	A	A	A	–	A	A	A	A	A	A	A	A
	Consisitency	A	A	A	C	A	–	A	A	A	A	A	C	A	A

At-Risk
Clinically Significant
Index Scale

Note. Full Validity Index narratives can be found in Reynolds & Kamphaus (2015, p. 41-47). Validity scores are interpreted as A=Acceptable and C=Caution.

[a] TRS-A was not completed for this student. [b] Mean scores are calculated to show pre- and post-intervention group changes. For clinicnal scales, a decrease indicates improvement. For adaptive scales, and increase indicates improvement.

Functional Impairment Index. This index is the same as on the SRP-A. Teachers rated three students as At-Risk prior to intervention. After intervention, teachers rated five students as At-Risk and one as Clinically Significant. This was an unexpected result; however, validity indexes

were in the Caution range for two students (Robert and Anna) who were rated as At-Risk prior to intervention and for the student who was rated at Clinically Significant (Anna) after the intervention indicating more negative and inconsistent responses. Given the interview reports and observational data, these results may have been impacted by the fact that Robert and Anna were relatively unknown to teachers prior to this project and post-intervention measures were taken during final exams. Observational and interview data do however support the interpretation that Anna's ratings are a true reflection of her functioning.

Executive Functioning Index. This index is composed of Problem-Solving, Attentional Control, Behavioral Control, and Emotional Control indexes (not listed in summary table) and provides an overall measure of executive functioning. High scores indicate pervasive problems with self-regulation across multiple domains of functioning and difficulty integrating these domains successfully to engage in age-appropriate planning, organizing, and problem-solving in most day-to-day learning environments (Reynolds & Kamphaus, 2015). Elevated scores would be expected given the elevated scores on the SRP-A BSI. Research has shown that individuals who experience severe emotional problems often have poor executive skills of problem-solving, attentional control, behavioral control, emotional control, planning, and organizing (Buttinger, 2012; Prince-Embury, 2014), which may be why adolescents with severe emotional problems are often diagnosed with ADHD while any further assessment of an emotional disorder may not be investigated (Buttinger).

Resiliency Scale. Resiliency is the ability to overcome adversity by adjusting to change, recovering from setbacks quickly, and having effective problem-solving skills (Reynolds & Kamphaus, 2015). Teachers rated all six students as At-Risk prior to intervention as expected. After intervention, teachers rated six students as At-Risk and one student as Clinically Significant. Scores remained similar for both pre-and post-intervention. It was expected that post-intervention scores would improve overall, but results suggest no significant change occurred. Despite having several scales that relate to resiliency on the SRP-A, there is not a specific comparable scale on the SRP-A to compare with the TRS-A Resiliency scale. More importantly, this is a teacher-rated scale and does not reflect the personal experience of the students themselves (Prince-Embury, 2014). For this reason, a second, more relevant assessment tool was included to address this issue.

Resiliency Scales for Children & Adolescents (RSC-A) Composite and Index Scales

While the BASC-3 provides a broad picture of overall emotional and behavioral functioning across home and school contexts, and several scales could be related to resiliency in general terms, a more targeted measure of specific resiliency factors was still required to fully understand the significance of a resilience-based pedagogy for supporting at-risk students. Furthermore, the theoretical model that frames the Resiliency Scales for Children and Adolescents "focusses on the personal experience of the child and not actual ability or performance as assessed by others….the three-factor model assumes that the child's experience mediates between external protective factors and positive behavioral outcomes" (Prince-Embury, 2014, p. 26). For this reason, a teacher-rated scale is not available.

RSC-As were completed prior to and after the DBT-A skills training intervention and results are summarized in Table 8. The Resiliency Profile and the Resource and Vulnerability Index T-scores will be interpreted based on the classification ranges provided in Table 9 and discussed in the terms of the three-factor model of resiliency that the RSC-A is based on. These are intended as screening tools and alone do not provide sufficient information to fully inform intervention. However, they do provide useful information for monitoring the progress of interventions because they are snapshots of an individual's resiliency at a given moment in time and allow for repeated testing to monitor resiliency development (Prince-Embury, 2014). Finally, since individual subscale scores identify specific resources and risk factors that underlie resiliency's core developmental mechanisms of Mastery, Relatedness, and Reactivity, these will be discussed in terms of informing intervention.

Resource Index. This index estimates a youth's personal strength development as it relates to Sense of Mastery and Sense of Relatedness as protective factors. Because youths' personal strength development is impacted by the interaction of their behavior with their social environment, "youth who perceive themselves as having sufficient personal resources will be more resilient and less likely to develop psychopathology due to adversity than those who experience themselves as having insufficient personal resources" (Prince-Embury, 2014, p. 39). All seven students scored in the Low range prior to intervention, suggesting that they perceive few personal strengths.

Table 8

RSC-A Scaled Score Summary - Total Sample by Age (14-18 years)

		Pre-intervention T-Scores							Post-intervention T-Scores						
		Karen	Mary	Andrew	Robert	Anna	Emily	Peter	Karen	Mary	Andrew	Robert	Anna	Emily	Peter
Index Scores	Resource[a]	37		32	37	38	29	34	39	26	42	34	25	42	32
	Vulnerability[b]	65	85	55	57	66	72	71	60	79	50	61	72	61	65
Resiliency Profile	Mastery[a,c]	33	19	36	33	35	33	28	37	23	43	34	21	43	32
	Relatedness[a,c]	43	20	31	41	43	28	43	43	31	41	36	31	42	35
	Reactivity[b,c]	61	75	40	49	67	64	69	57	79	42	53	65	60	57
		Pre-intervention scaled scores							Post-intervention scaled scores						
Mastery Subscales	Optimism	5	1	5	8	6	7	3	5	1	9	7	3	8	3
	Self-Efficacy	5	2	9	4	6	5	5	7	4	8	5	2	8	8
	Adaptibility	7	4	2	5	6	5	7	10	4	7	4	1	8	4
Relatedness Subscales	Trust	7	3	4	7	8	4	8	7	8	7	6	5	8	6
	Support	10	1	7	8	9	3	11	10	4	7	5	5	8	6
	Comfort	8	8	2	5	6	6	3	6	6	4	8	3	8	5
	Tolerance	9	1	8	10	9	5	10	10	2	11	6	7	7	9
Reactivity Subscales	Sensitivity	10	16	6	12	12	13	14	10	17	8	12	13	12	11
	Recovery	16	15	7	11	14	12	10	15	12	8	10	14	14	11
	Impairment	13	17	8	10	15	14	17	11	19	8	11	14	12	12

At-Risk

Clinically Significant

Note. See Table 9 for T-score and scaled score ranges.

[a] Low and below-average T-scores indicate poor adaptive functioning while above average and high T-scores indicate adaptive functioning. [b] Above-average and high T-scores indicate elevated risk while below-average and low T-scores indicate lower levels of risk.

[c] An increase indicates improvement for the mastery and relatedness subscales. A decrease indicates improvement for the reactivity subscales.

Table 9. Resiliency Scales for Adolescents Range Classifications

Resource and Vulnerability Index Score Rankings based on T-Score Ranges	
Ranking	**T-Score Ranges**
High	≥60
Above Average	55 - 59
Average	45 - 54
Below Average	41 - 44
Low	≤40
Score Rankings Based on Subscale Scaled Score Ranges	
Ranking	**Scaled Score Ranges**
High	≥16
Above Average	13 - 15
Average	8 - 12
Below Average	5 - 7
Low	≤4

After intervention, four students showed increased T-scores including two students who improved by a full classification to the Below Average range. Three students' scores decreased suggesting that they perceived even fewer personal strengths or resources than before intervention. Such a decrease warrants further investigation to determine the cause of the decrease so modifications to the intervention can be made to address any relevant issues. Subsequent qualitative data may uncover possible issues for follow-up.

Vulnerability Index. This index estimates the students' personal vulnerability by calculating the discrepancy between perceived personal resources and strengths and emotional reactivity. An individual's resiliency is based on whether he or she has adequate resources to balance his or her emotional reactivity (Prince-Embury, 2014). High Vulnerability index scores indicate that emotional reactivity outweighs personal resources, which is the central issue in emotional dysregulation. Pre-intervention scores show two students in the Above Average range and five in the High range, indicating that these students did not have sufficient personal resources to balance their emotional reactivity. Post-intervention scores showed that while one student improved to the Average range from Above Average, four of the six students who were in the High range showed decreased scores, which is still considered growth in a positive direction.

Resiliency Profile. This profile consists of global scale scores from Sense of Mastery, Sense of Relatedness, and Emotional Reactivity that indicate the interaction between perceived resources (protective factors) and vulnerabilities (risk factors) in children and adolescents at a given point in time. When considered together, the three scores provide a description of a child's relative resiliency (Prince-Embury, 2007). T-Scores below *T*45 for Sense of Mastery and Sense of Relatedness and above *T*55 for Emotional Reactivity are characteristic of clinical samples of youth diagnosed with Anxiety, Depression, Conduct Disorder, and Bipolar Disorder (2014, p. 49-50). All seven Mastery and Relatedness scores were below *T*=45 and five Emotional Reactivity scores were above *T*=55.

It's important to consider the results on an individual basis rather than as an aggregate-only comparison of pre-post measures because individual profiles may vary in initial degrees of resiliency with some students having greater strengths in one area while others show greater strengths in other areas. Change is more likely seen in those who are most vulnerable and least resilient (Prince-Embury, 2014). Additionally, it is important to look at the individual subscales to identify specific strengths and vulnerabilities and to target interventions accordingly. Pre-post comparisons become more meaningful when monitoring individual progress and evaluating changes in those specific protective (strengths) and risk (vulnerabilities) factors.

Sense of Mastery. This set of scales is based on a set of core constructs that have been consistently identified by developmental and resilience researchers as important for resiliency (Prince-Embury, 2014). These are optimism: positive attitude about life and one's own competence; self-efficacy: the ability to master one's environment associated with developing problem-solving attitudes and strategies; and adaptability: ability to switch mindsets, being receptive to feedback, and learning from one's mistakes. When combined, these constructs form a child's sense of mastery. For detailed definitions of these constructs, see Prince-Embury (2007, p. 9-10). Individual results show that two of the seven students' scores increased on Optimism, five students' scores increased on Self-efficacy, and two students' scores increased on Adaptability.

Sense of Relatedness. This set of scales consists of four interrelated constructs: sense of trust: thoughts and expectations about the trustworthiness of others; perceived access to support (as opposed to actual support) from others; comfort with others: one's experience in the presence of others resulting from previous experience with others; and tolerance: belief that one can safely

express differences within a relationship. For detailed descriptions of these and theoretical significance, see Prince-Embury (2007, p. 11-12). Individually, three students' Trust scores increased by a full classification range, one student increased her Support score by a full classification range, four students increased their Comfort scores by a full range, and four students remained in the same range, yet increased their scores on Tolerance.

Emotional Reactivity. This set of scales represents three constructs of emotional regulation. First is *level of sensitivity*, or threshold of tolerance prior to distressing events, and related difficulties regulating the speed and intensity of emotional reactions to these events (Prince-Embury, 2014). *Recovery* refers to how quickly after a strong emotional reaction a person returns to normal functioning. *Impairment* refers to "the extent to which intellectual or executive functioning can retain relative autonomy in periods of stress as opposed to being disrupted and overridden by emotionality" (Prince-Embury, 2007, p. 13). High scores have been associated with maladaptive behavior and low scores indicate effective emotional regulation, which is a significant factor in fostering resilience (Cicchetti, 2013). Regarding school functioning, Emotional Reactivity—specifically impairment—is especially significant in supporting the rationale for using DBT-A skills training as an intervention to address emotional dysregulation for these students since six out of seven scored in the Clinically Significant range prior to intervention.

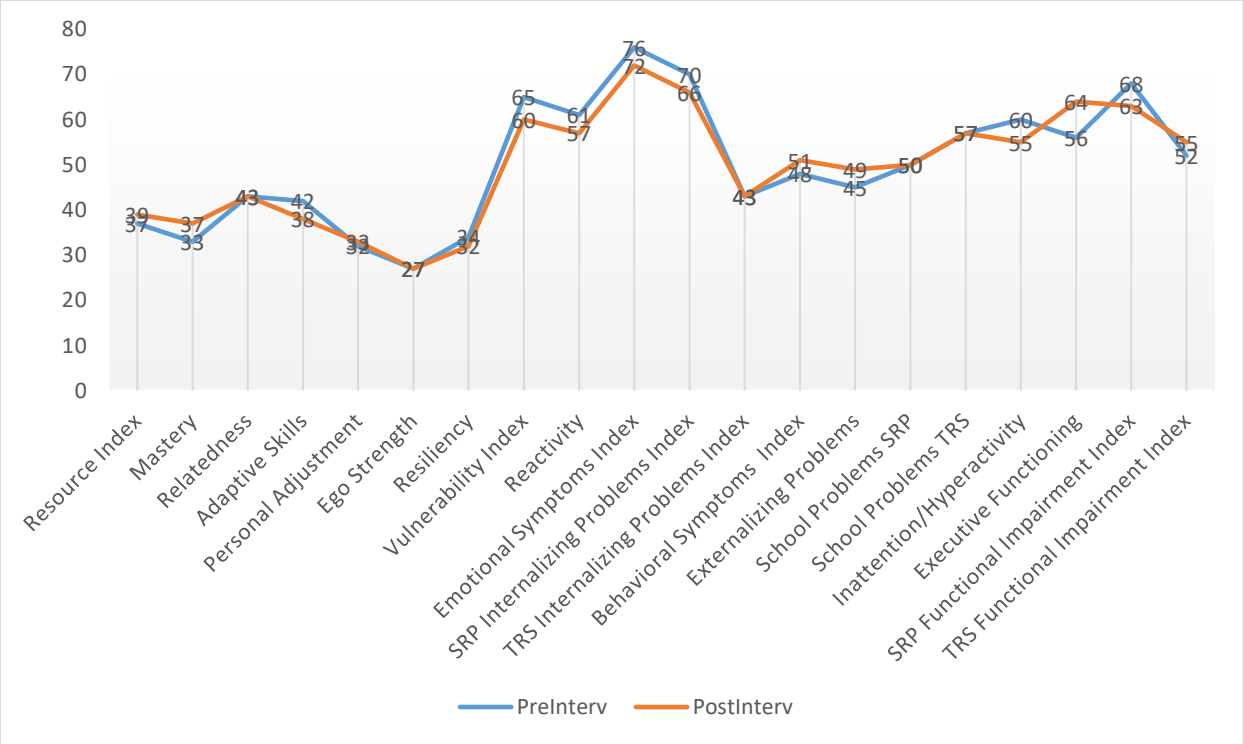
Individual Resiliency Profiles

Using pre- and post-intervention measures from the BASC-3 SRP-A, BASC-3 TRS-A, and the RSC-A, as well as conducting semi-structured interviews upon completion of the intervention, I constructed individual resiliency profiles for each student that demonstrate the complex needs and limited resources that impact at-risk students' abilities to interact and engage with their school environment. Individual profiles were examined ipsatively: high and low points were compared within the same individual to identify specific strengths and vulnerabilities from which to inform intervention. A visual resiliency profile is provided for each student using line graphs to plot the BASC-3 and RSC-A composite and index T-scores. Profiles that are relatively flat and in the range of T=46 to T=55 indicate average resiliency compared to a normative sample. Profiles with several steep slopes with low adaptive scores and high clinical scores indicate clinical levels of resiliency compared to a normative sample. Furthermore, postintervention profiles (orange) should be above preintervention lines (blue) for adaptive

composite and index scores, and they should be below for clinical composite and index scores if improvement occurred.

Karen. Karen was a 15-year-old female student in Grade 10. Her resiliency profile resulted in Clinically Significant scores on Sense of Mastery and Reactivity, an At-Risk score on Sense of Relatedness, and Clinically Significant scores on both Resource and Vulnerability indexes prior to intervention. Furthermore, her BASC-3 Emotional Symptoms Index score was in the Clinically Significant range suggesting that Karen experiences significant risk in the areas of Social Stress, Anxiety, Depression, Sense of Inadequacy, and Self-Esteem. More specifically, Karen may experience significant emotional distress due to lack of coping resources when interacting with peers (low trust, avoidance), feeling overwhelmed by minor setbacks (anxiety and panic attacks), a low sense of achievement and academic failure ("almost failing two classes," "I don't have alot of achievements"), and an overall sense of dissatisfaction with herself ("challenges with myself").

Figure 5.1. Karen's Resiliency and BASC-3 Profiles



Karen also had a Low score on Personal Adjustment, which suggests that she may have been prone to withdrawal ("always a lot of school drama") and to repress uncomfortable feelings

and thoughts ("acting to hide my anxiety," "don't like to talk about it with anybody"), as well as an elevated SRP Functional Impairment score, which further indicated that Karen experienced difficulties regulating mood (anxiety and depression, frequent panic/anxiety attacks), interacting with others (only talking when talked to), and performing school-related tasks (procrastinating, not studying, late assignments, struggling to manage multiple projects, almost failing classes). Finally, Karen's Ego Strength scored in the Clinically Significant range, indicating that she experienced low self-esteem, a perceived poor social network (bullying), and depression-like symptoms due to having poor self-identity ("I see myself differently than how I actually look"), a lack of self-confidence ("I stay low unless I otherwise have to speak up") and emotional competence ("I wasn't in a great point in my life so I wasn't trying"), and a lack of self-acceptance ("change my appearance," "wear clothes that don't fit"). It is no surprise then, that her teacher rated her in the At-Risk range on Resiliency given her scores on Ego Strength.

Karen also *appeared* to have appropriate emotional expression and control: Despite Karen's emotional vulnerabilities, she was still able to maintain behavioral self-control, and avoided interrupting or distracting others in class with inappropriate behaviors. Karen could manage her emotional reactivity in such way as to not significantly impair her executive functioning at school. While it is likely that she may have used strategies such as leaving the classroom to calm down when highly emotional and then returning to class once she returned to baseline, SRP ESI scores also indicated that Karen experienced significant internalizing problems and; therefore, her perceived behavioral control could more accurately be a case of more maladaptive internalizing of her emotional reactions to stressors. Subsequently, stressors could impair her executive functioning when not expressed in a more adaptive manner.

Karen's teacher also reported that she had Average social skills. Karen reported in her interview that she had friends and that their activities involved walking around, talking, eating at a fast food restaurant, or hanging out at her house. Karen also held a part-time job. However, Karen's scores on Interpersonal Relationships and the Trust subscale were in the At-Risk range suggesting that there were challenges with social adaptation. This makes sense given that Karen often did not engage with her peers unless they spoke to her first, she experienced random panic attacks in public and school, and she tended to avoid social situations that she didn't completely trust. While school and classroom behaviors were perceived by teachers as adaptive strategies that demonstrate adequate social skills, it may be more likely that they were simply maladaptive

strategies that allowed Karen to avoid difficult social situations at school that would require dealing with her emotionality more effectively.

Despite Karen's self-reported vulnerabilities, her teacher reported several strengths that likely mediated those vulnerabilities to the extent that she didn't experience significant behavioral problems. Her Behavioral Symptoms Index score was in the Average range along with School Problems, Externalizing Behaviors, and Adaptive Skills. Her Functional Impairment and Executive Functioning scores were also in the Average range as reported by her teacher. Karen's strengths included having good anger control, a positive attitude toward teachers ("I haven't had any issues with teachers") and school ("very important otherwise you couldn't get a good job if you dropped out…couldn't get into university…you would have a low-paying job"), and a good relationship with her parents ("my parents are supportive"). Karen also reported the support of a school counsellor to help her manage her emotional challenges both inside and outside the classroom, indicating reasonable adaptive skills such as functional communication (ability to clearly express oneself or ask for help) and an Average level of self-reliance in her ability to make decisions and take responsibility for them.

Overall, Karen endorsed a resiliency profile of low coping resources and high sensitivity to interpersonal and environmental stressors that made it difficult for her to navigate changes in her school and social environments. While the BASC-3 and RSA data generally provided supporting evidence of what Karen reported during her interview, there was one minor discrepancy. Karen stated that she had good interpersonal relationships ("seven out of ten" rating) and that she didn't really need any help with social skills ("I've just always been a social person for the most part"); however, she scored in the At-Risk range on Interpersonal Relationships suggesting that she had problems in relating to others and in developing social skills. One interpretation of this result may be that Karen is more withdrawn than she perceives and lacks self-awareness about her interpersonal skills. Another interpretation of this is that she simply doesn't have the energy for social interactions if her Depression and Anxiety scores were elevated (both were in the Clinically Significant range on the SRP-A).

Karen may desire good interpersonal relationships, but she may be unsuccessful in seeking them out due to being unaware of her lack of social skills or level of social disconnection. Karen reported that developing social skills (Interpersonal Effectiveness) was the least helpful component of the skills training intervention for her because her relationships with

her peers were “just normal”. Karen’s post intervention data show no change on both her Interpersonal Relatedness score and Sense of Relatedness score. Karen established a new friendship with another group participant suggesting that her social difficulties could more likely be interactions with general peers with whom she does not have close friendships with (i.e. general classmates). Future interventions would likely need to target this area. Regarding the skills training intervention, Karen reported that learning strategies to help her manage her anxiety (Distress Tolerance and Emotional Regulation) were the most beneficial for her.

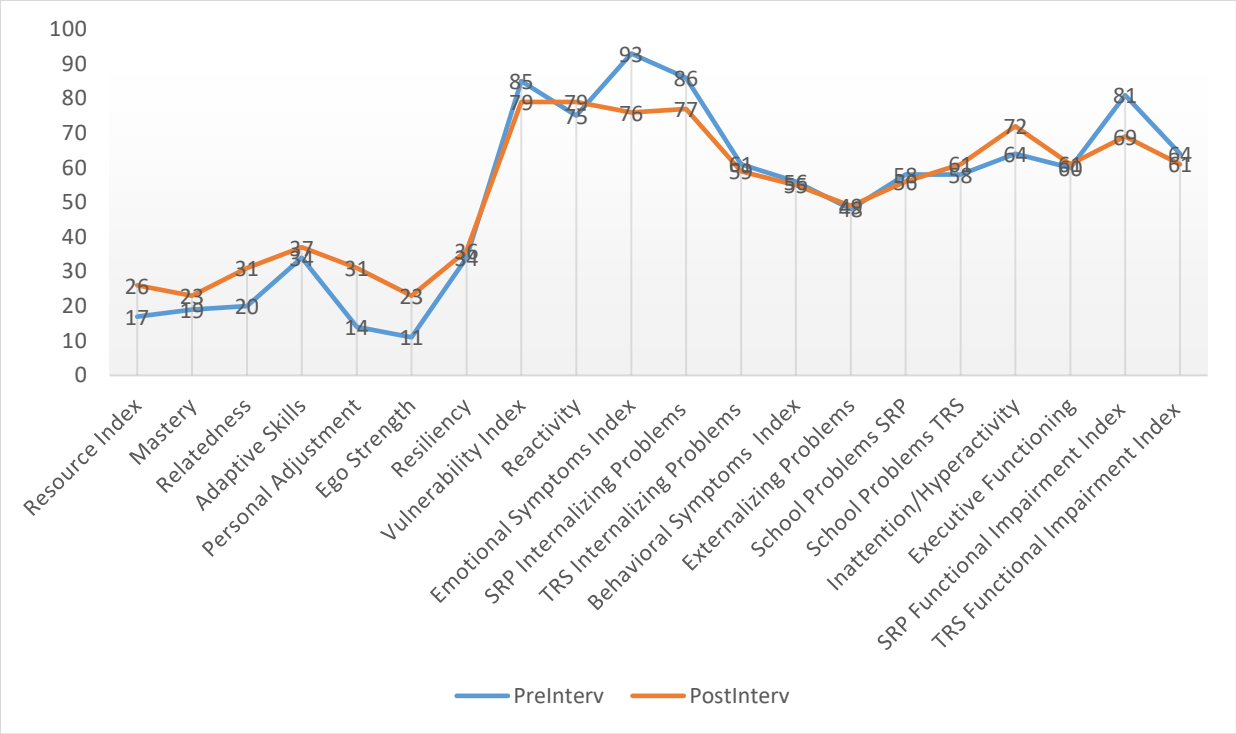
Postintervention data analysis showed improvements on the Vulnerability Index of the Resiliency profile, and improvements on the SRP-A Emotional Symptoms index, Internalizing Problems composite (from Clinically Significant to At-Risk), Depression scale (from Clinically Significant to At-Risk), and Locus of Control scale (from At-Risk to Normal). Conversely, Karen showed declines in the SRP-A Somatization scale and the TRS-A Externalizing Problems composite, Adaptive Skills index (from Average to At-Risk), Executive Functioning index (from Average to At-Risk), and Attention Problems scale (from Average to At-Risk). Future interventions would need to target specific BASC-3 content scales and RSA subscales where scores were in At-Risk or Clinically Significant ranges focussing primarily on those where postintervention scores remained unchanged or declined.

Mary. Mary was a 14-year old female student in Grade 9. Mary’s overall profile indicates very low adaptive resources and very high emotional vulnerability and impairment prior to intervention. Mary scored in either the At-Risk or Clinically Significant range on all composite and index scores except School Problems, Externalizing Problems, and Behavioral Symptoms Index. Her interview responses supported this pattern as she reported “a ton of conflict” with parents, refusing help from friends, teachers, and peers (“trying to help me, but I just wouldn’t listen”), and running away (“running away not dealing with stress properly”). Mary reported high emotional reactivity when distressed and a tendency to also internalize her distress (“my mind just goes off and like gets super mad and holds that stress in and then I can never get it out”).

Having Average scores in the Externalizing Problems, School problems and Behavioral Symptoms Index is not surprising given the elevated scores on the Behavioral Symptoms index and Internalizing Problems composite. These are all rated by her teacher, suggesting that her teacher did not observe any behavior problems that interfered with school functioning and this

also gives further support of Mary's experiencing internal distress. Her teacher rated her in the At-Risk range for internalizing Problems, which indicates that her teacher was aware of some of Mary's distress and may indeed did try to help her.

Figure 5.2. Mary's Resiliency and BASC-3 Profiles



Mary's ESI score was extremely elevated. This is particularly concerning. Her *F*-Index was in the *Caution* range suggesting that Mary had an excessively negative view of her thoughts, feelings, and behaviors. Mary also had one of the lowest Self-Esteem scores, the lowest Personal Adjustment score, the highest Social Stress and Depression scores, and one of the highest Internalizing Problems scores of the group. Furthermore, Mary reported very low scores on Mastery and Relatedness resources available to her. The overall consistency and pattern of Clinically Significant results indicate that Mary may have experienced exceptionally high levels of emotional distress, and very limited outlets to alleviate her distress, leaving her extremely vulnerable to severe emotional dysregulation.

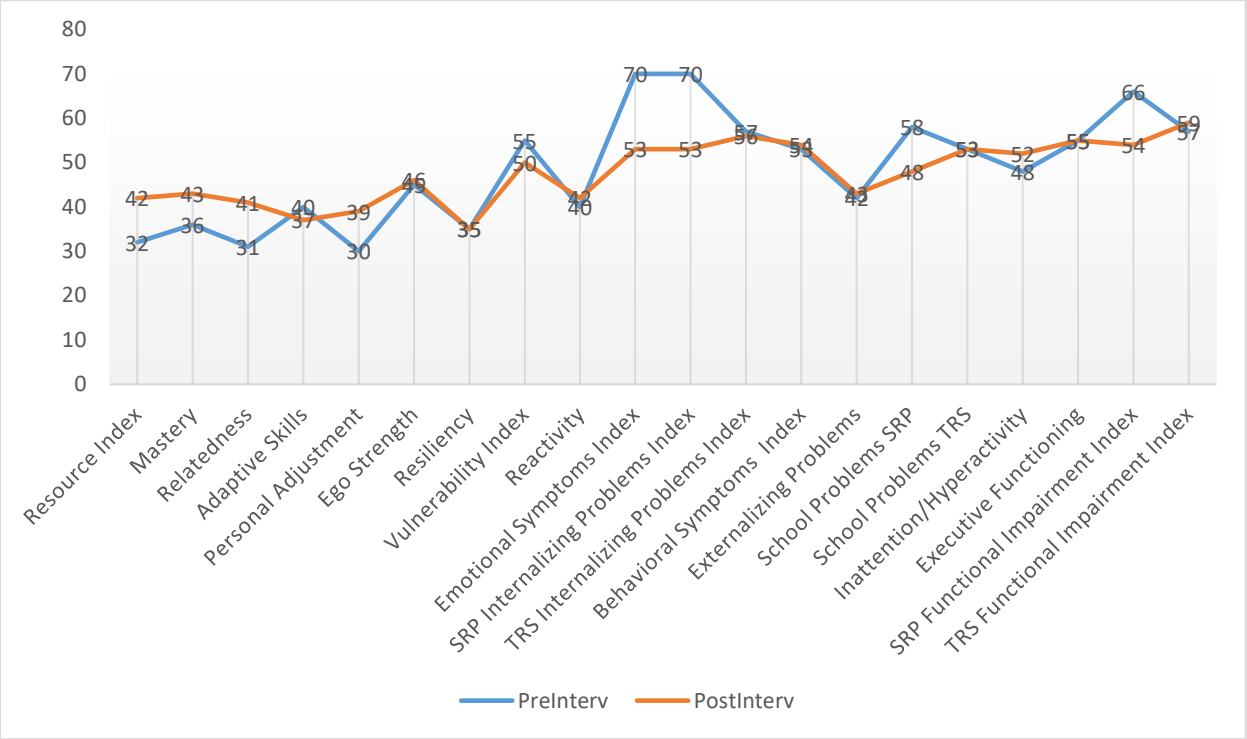
Mary's teachers reported that prior to the skills training program, Mary was often observed sitting alone at lunchtime, had little confidence, and few, if any, stable friendships. She

also struggled with schoolwork and was referred to a learning assistance program to improve her academic achievement. After the skills training program, both Mary and her teachers reported that she had a new confidence and positive attitude, she made and maintained two new friendships, was completing all homework ahead of time, and achieving very high marks: "Often it was 90-100 % correct." Mary was very engaged in the skills training program and was a very active participant. She completed all homework and responded very positively to the discussion and learning activities. When interviewed after the program, she reported that the Mindfulness, communication, problem-solving and Distress Tolerance skills she learned benefited her the most. Her teachers reported that Mary "made leaps and bounds as far as her anxiety and her own overall confidence."

Post-intervention analysis showed several notable areas of improvement that support Mary's reported changes: Mary's RSC-A Resource and Vulnerability indexes and Sense of Relatedness composite, SRP-A Internalizing Problems composite; Emotional Symptoms, Personal Adjustment, and Functional Impairment indexes; the TRS-A Internalizing Problems composite (from At-Risk to Average). Mary also had several content scale improvements worth noting: SRP-A Ego Strength, Depression, Self-Esteem, Self-Reliance, Social Stress, Attitude to School, Interpersonal Relationships, and Test Anxiety; and her TRS-A Emotional/Behavioral Disorder probability index. Based on these results, future interventions would need to continue to support these areas as well as target the areas where Mary showed a decline: SRP-A Inattention/Hyperactivity index, and Sensation Seeking and Hyperactivity (from Average to At-Risk) scales, and TRS-A Somatization (from At-Risk to Clinically Significant), School Problems (from Average to At-Risk). Further assessment of ADHD Probability (from Average to At-Risk) would also need to be included.

Andrew. Andrew was a 15-year old male student in Grade 10. Andrew's pre-intervention profile had several peaks and variations across composites and indexes, and were typical of many at-risk students: High vulnerability and low personal resources. His post-intervention profile showed noticeable improvements with fewer peaks and a much smoother line indicating that his overall resiliency improved. The RSC-A Resource index improved from Clinically Significant to At-Risk, and both Sense of Mastery and Relatedness scores improved from Clinically Significant to At-Risk. Andrew's BASC-3 scores also showed improvements in

Figure 5.3. Andrew's Resiliency and BASC-3 Profiles



the SRP-A Internalizing Problems (Clinically Significant to Average), Emotional Symptoms (Clinically Significant to Average), and Functional Impairment indexes (At-Risk to Average), and School Problems and Personal Adjustment composites. There were also several content scales that showed improvement: SRP-A Depression (At-Risk to Average), Anxiety (At-Risk to Average), Sense of Inadequacy, Somatization (Clinically Significant to Average), Social Stress (Clinically Significant to Average), and Attitude to Teachers (Clinically Significant to Average). Like Mary and Karen, Andrew had Clinically Significant ESI and Internalizing Problems scores and an *F*-score in the *Caution* range prior to intervention. Given his marked improvements after intervention, it may be that Andrew perceived himself in a particularly negative way prior to intervention, and my observations of Andrew supported this finding. Andrew's behavior appeared to be more over-controlled than his peers during the program and in the interview. He was very cautious with how he responded both physically and verbally during program activities. This suggested that Andrew's reported fear of saying or doing the wrong things influenced his more negative perceptions and may indeed have produced an *F*-score in the caution range.

There was also an interesting change relating to Andrew's academic functioning and interpersonal relationships at school. Research has shown that connection to peers predicts school achievement (Abrami et al., 2012; Langenkamp, 2010; Tilleczek et al., 2011) and Andrew's profile was a good example of this. He made the honor roll early in Grade 9, suggesting that school was not an issue for him then, but once in Grade 10 he experienced some challenges getting homework completed on time and studying for exams when finals came. While Andrew reported having several long-time friends that he interacted with outside of school, he also reported: "I always felt sort of ignored as part of the family…[and] at school I sort of always felt invisible in physical activities, or around even my friends really." He stated that he had very little interaction with other students while in class, and felt awkward in new social situations. Andrew's interview responses suggested that he felt very disconnected from his school environment, peers, and teachers:

> I haven't had many social interactions with anybody in the classroom, just mainly focussing on my work, and I never really had much of a chance to talk to anybody in school events like pep rallies or anything like that.

Furthermore, Andrew reported that he avoided speaking up in class or asking for help, which Andrew's teacher confirmed. "He's still very closed in—doesn't say much, and doesn't at all come to ask questions, ask for help, find out if he's behind…" Another teacher reported that when trying to offer guidance in the past, Andrew would respond with "No! and he would argue or he'd be set in his way." Andrew's pre-intervention scores on Social Stress, Anxiety, and Interpersonal Relationships further support this interpretation.

So, while it may appear that Andrew experienced better-than-average academic functioning, his inability to interact with peers and teachers would likely continue to have a negative impact on his achievement if unaddressed. Interestingly; however, Andrew reported the social aspect of the skills training group to be the most beneficial for him: "Because talking to those kids helped me sort of get out of my shell I guess." When questioned further as to why this was beneficial, he stated that a social game allowed him to interact easier because his guard was down: "When I'm talking to people, I'm always a little bit worried that I might say something stupid." Andrew's fear is quite common among high school students, especially those who are more emotionally vulnerable to peer judgment—all seven students in this project—which appears to result in what I refer to as "social paralysis."

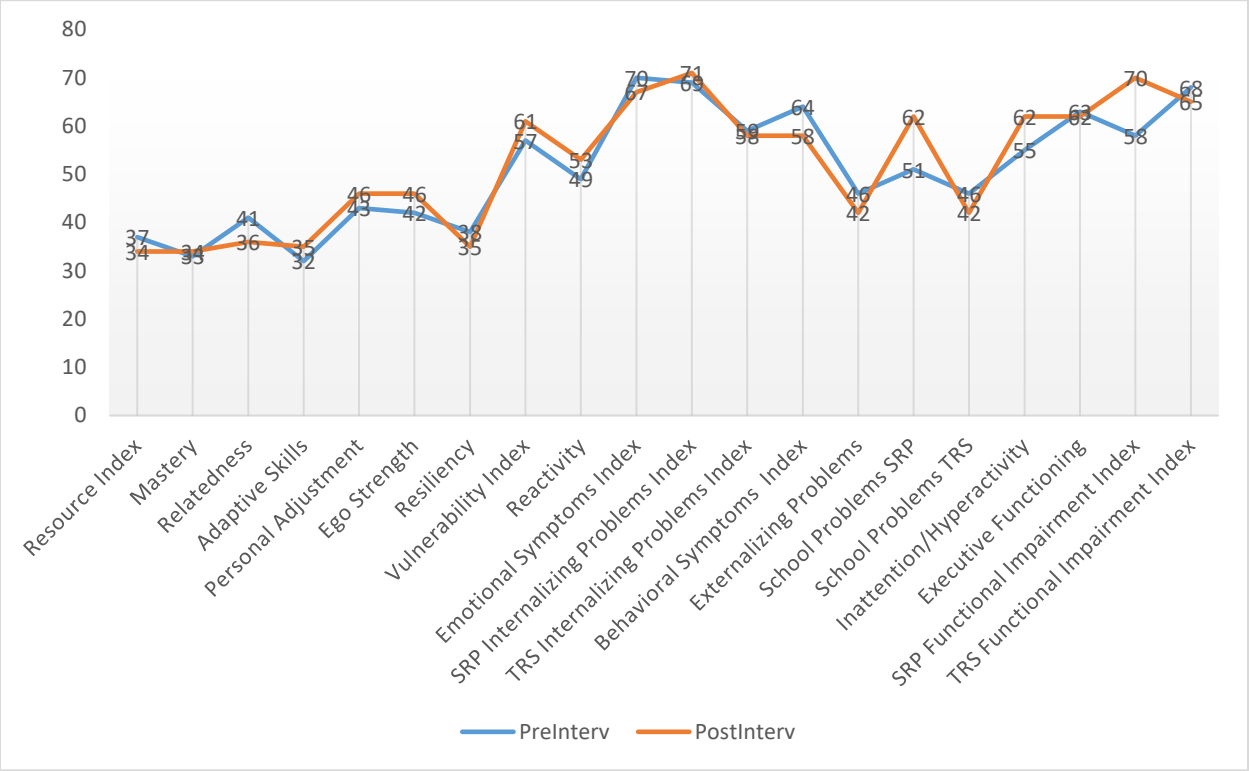
Andrew's profile was interesting because it wasn't typical of most at-risk students. While he showed very promising improvements on almost all composite and index scales, it will be important to continue to support Andrew's social development through skills training in the areas of communication and interaction. Before participating in the skills training, Andrew's teachers observed some very rigid thinking and behavior patterns. But after the intervention, they observed increased communication and interaction with classmates, a newly blossoming sense of humor, and more flexible thinking and problem-solving strategies:

> I mean, huge improvement in his eye contact….I said to him, "Andrew, I know you have practice, but what do you think is more important? Finishing your final exam or going to practice? You need to evaluate that." He goes, "Well, yeah, you're right." Then he came in and finished his exam. Like before, it'd be like, "No!" He would argue or he'd be set in his way and you know, now it's like, "Ok. Yeah, you're right. I can adjust my thinking."

Andrew's SRP-A Functional Impairment index score improved from At-Risk to the Average range; however, if this growth isn't continually supported with ongoing skills training, these results may likely not be maintained over the long-term. Additionally, Andrew reported that he would also benefit from future interventions that target distress tolerance to manage his anxiety more effectively.

Robert. Robert was a14-year old male student in Grade 9. Robert's profile is similar to the previous three students, but has some unique characteristics. First, while all seven students scored similarly on their individual Resiliency composites of Mastery, Relatedness, and Reactivity, Robert was the only student who scored in the Average range on Reactivity. Secondly, Robert's teacher rated him in the At-Risk range on the Behavioral Symptoms Index while he scored as Clinically Significant on the Emotional Symptoms Index. What makes this result unusual is the fact that when the other students had elevated ESI scores (higher end of the Clinically Significant range), they tended to have much lower BSI scores (average). Robert had elevated scores on both, which makes sense given that he had the highest Withdrawal score of the group, which would increase his BSI. Robert was also the only student whose teacher rated him in the At-Risk range on the Emotional/Behavioral Disorder Probability index. What did his teacher observe that resulted in this score?

Figure 5.4. Robert's Resiliency and BASC-3 Profiles



The areas that showed improvement were the Interpersonal Relationships scale (Clinically Significant to At-Risk) and the TRS-a School Problems composite (At-Risk to Average), BSI (At-Risk to Average) and Emotional/Behavioral Disorder indexes (At-Risk to Average), and Learning Problems (At-Risk to Average), Anger Control, Emotional Self-Control (Average to Below Average), and Negative Emotionality (At-Risk to Average) scales. These results suggest that Robert was more positive, less withdrawn and more engaged with peers, showed more emotional control, as well as being better able to pay attention in class and complete homework. Having observed Robert, I was not surprised by the score on Anger Control, but on Negative Emotionality. While he was often quiet and required prompting to add to discussions, I did not observe him acting negatively in response to changes within the group. Perhaps his teacher saw something different in the classroom.

Conversely, Robert showed decline on the SRP-A School Problems composite, which was due to a marked decline on Attitude to School (Average to Clinically Significant) scale, Functional Impairment index (Average to Clinically Significant), and Somatization (Average to at-risk) and Attitude to School (Average to Clinically Significant) scales. The decline on

Functional impairment suggests that Robert perceived less of an ability to respond appropriately in everyday settings and situations. Why did this score change from Average to Clinically Significant? While I did not observe inappropriate responses, it would be useful to explore this result further. Robert's *L*-Index was in the caution range, indicating that he may have responded "*True* or *Almost Always* to unrealistically positive self-descriptions or *False* or *Never* to mildly self-critical statements" (Reynolds & Kamphaus, 2015, p.104). So, while Robert's improvements make sense given observational data and teacher reports, his declines were questionable. Given his *L*-Index; however, these make more sense. Perhaps Robert was less aware of his own strengths and deficits prior to the intervention, and learning the skills simply increased his awareness and allowed a more realistic self-assessment of strengths and deficits. Furthermore, the *L*-Index may account for the marked decline on Attitude to School; however, there may also be other factors that explain the decline such as completing the BASC-3 during final exams.

Throughout his interview and the interview with his teachers, there was a theme of disconnectedness at home and school that impacted his ability to engage with school:

> "If I wasn't shy all the time, I'd probably make like more friends."
>
> "I'm afraid of what I say, like might weird out people or offend anyone."
>
> "…kind of scary sometimes. You don't know a lot of people and trying not to embarrass yourself."

Robert's teachers also commented that Robert considered changing schools, likely because of his social isolation. One teacher stated, "He would just sit and try to blend in and just ignore me." Another teacher stated, "He wants to be wallpaper. He just sits there. He doesn't want anybody to see him." These reports suggest a pervasive pattern of avoidance, isolation, and loneliness. Generally, Robert experienced significant isolation at home (he has several siblings, but lives alone with a grandparent) and at school due to his shyness and fear of embarrassing himself, which speak to his expectations and motivation.

Not surprising then, were Robert's scores on both Depression composites. Both were in the Clinically Significant range, and both Internalizing Symptoms composites were in the At-Risk range. It also made sense then, that his score on Self-Efficacy was in the At-Risk range, and his scores on Trust and Comfort were in the Clinically Significant range—all these resources

being very important in terms of relating to others. It became clear that Robert was extremely uncomfortable in social situations and this caused him to avoid them at all costs.

How did this social paralysis impact Robert's school success? Robert reported that he was constantly worried about not finishing his work, not fitting in, and not making friends. Research has shown that excessive worry and anxiety can impair executive functioning, especially attention and focus (Buttinger, 2012). Robert experienced depression, anxiety, loneliness, and social isolation—a combination that would have a significant impact on school functioning. Robert was aware of his attention problems, and his teachers also observed problems with attention and learning. His score on the Executive Functioning Index was in the At-Risk range. Math was a particularly challenging subject: "He was just not successful in Math….Just major gaps overall….You know, there's been some shining moments, but like there's just no retention." Additionally, not paying attention, not completing assignments, constant reminders to stay on-task and complete them, and having to track him down and walk him to noon tutorial may account for what teachers perceived as behavior problems. It is important to note that while the current research project shed some light on Robert's Math deficits, Robert's learning challenges may have been due to undetermined causes that warrant further assessment.

How did the skills training group benefit Robert? It brought him "out of his shell" and made him "more outgoing." Robert stated, "I'm more outgoing because I used all those skills you taught me….I thought that like the kids that put up their hand and they say something was um inspiring and interesting….Because maybe I could learn from that." Robert even surprised his teachers by his change in attitude toward schoolwork and his level of engagement:

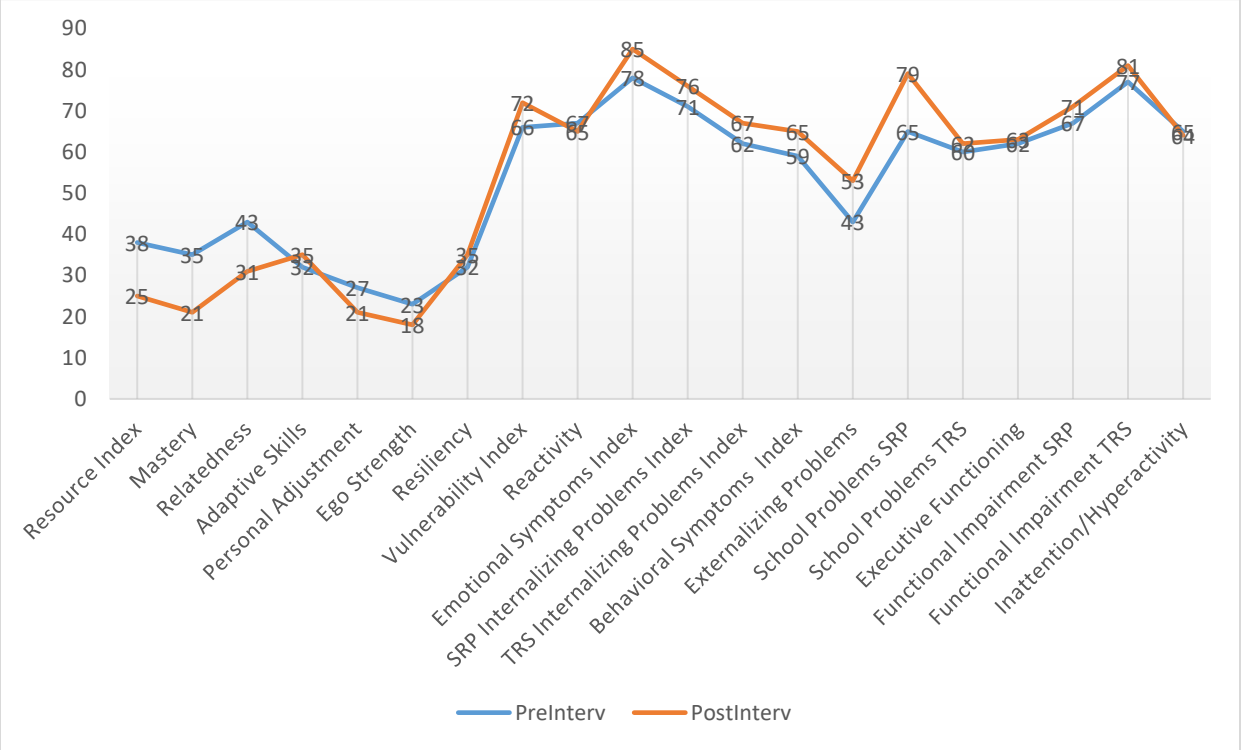
> So, like I've seen a change in him at noon hour. You're not always having to walk him in [noon tutorial]. He beats you there and he's got his lunch out. Usually, it's like, "Robert, you need to eat." He's got his lunch out and he's eating before I remind him. But noon tutorial, he's always there and he's asking me for help and he actually put his hand up a few times to get my attention, which is weird cuz he never does."

Another teacher reported a very unexpected choice of classes to register for in the next grade. Robert decided to take Drama as an option in Grade 10: "Blew me off my chair when he picked that as an option!" Apparently, the connections and friendships Robert made in the skills training group changed his perceptions of school (decided not to change schools) and gave him

the confidence and skills needed to pursue a course that he loved, but was too afraid to consider before.: “It made me feel good about myself….I think I’m more happy—kind of feel like I can embarrass myself….I have friends from like Grade 9 now.” Robert also reported that the Mindfulness and Distress tolerance skills helped him manage his anxiety and depression symptoms more effectively, which was evident in his behavior changes.

Anna. Anna was a 16-year-old female Student in Grade 10. Anna’s profile proved that not all students respond to group interventions, but instead require more intense, targeted individual interventions. Given Anna’s profile, there was evidence suggesting that she required a tertiary level of intervention, or Tier 3 of an RTI model.

Figure 5.5. Anna’s Resiliency and BASC-3 Profiles



Anna’s scores were in the Clinically Significant (some of the highest in the group) and At-Risk ranges prior to intervention, and several composite, index, and scale scores declined. Anna’s Resource and Vulnerability indexes declined, and her Sense of Mastery and Relatedness (At-Risk to Clinically Significant) declined. Additional declines were seen on SRP-A School Problems composite (At-Risk to Clinically Significant), Emotional Symptoms and Personal

Adjustment indexes, and Sensation Seeking (Average to At-Risk), Social Stress (Average to At-Risk), Self-Reliance (At-Risk to Clinically Significant), and Depression scales. Teachers also observed a decline: Externalizing Problems, Behavioral Symptoms index (Average to At-Risk), and Negative Emotionality scale showed a decline. The only notable improvement was Social Skills (At-Risk to Average). A reasonable interpretation of this result is that Anna's pervasive level of emotional dysregulation made her unresponsive to skills training in a group setting due to significant deficits in most areas of functioning. Anna's teachers observed very little change in Anna's disengagement with school before, during, and after the intervention, but they did note that she was always polite and respectful in her interactions with them: "If she had it her way, she would sit and read a novel the whole time and not deal with whatever. And…that held true all the way to the last day of classes."

What was interesting was that Anna didn't have the worst pre-intervention profile in the group (compared to Mary, for example), so improvement was a reasonable expectation given Mary's notable improvements, yet this did not happen. Why? Was there a specific factor that inhibited Anna's improvement that was not detected by the BASC-3 or RSC-A? Anna's interview revealed critical information that allowed me to understand why she didn't improve. Anna experienced severe social paralysis. She found being around people and having to interact with anyone completely debilitating. She experienced numerous social problems at school and outside of school. These were not specifically discussed because Anna became extremely emotional when she was asked a general question about school challenges (social issues). It was clear that Anna had and possible still was experiencing some form of interpersonal trauma, which research has shown to have a significant negative effect on one's ability to feel safe and subsequently relate to others in any meaningful way (Ogden & Fisher, 2015; van der Kolk, 2014).

Anna's case highlights critical factor that educators need to be aware of when determining appropriate interventions for at-risk youth. While a full discussion of trauma and its effects on mental health are beyond the scope of this research project, Anna's case does indeed shed light on possible warning signs that indicate trauma, how it affects children and youth at school, and likely outcomes if it goes undetected. A common characteristic of someone who's experienced significant interpersonal trauma is dissociation. These individuals become disconnected from their bodies and their feelings, yet their feelings dictate every behavior. They

are in constant "alarm mode" and small reminders can trigger a trauma response (the same emotional response to the original trauma), so they live in a constant state of intolerable anxiety. They desperately fear experiencing any form of emotional pain that is associated with the original trauma (parent rejection, physical or sexual abuse, and/or neglect are the most common forms of interpersonal trauma), which eventually leads to complete numbness. They also become so focussed on their perceived faults (i.e., "I am damaged beyond repair.") and relentless fear that they are unable to think of much else: "I think of other stuff during class, not what I'm supposed to." To make matters worse, they live in a constant state of emotional distress, which makes it extremely difficult to interact with others leaving them feeling further isolated, alienated, and lonely. It comes as no surprise then that these individuals would have elevated scores on Anxiety, Depression, and Internalizing Problems. Subsequently, individuals like Anna become completely disconnected from both themselves and their social world, and sadly, these vulnerable youths are also more likely to experience suicide ideation and attempted suicide to alleviate their emotional suffering. They have few, if any personal resources to draw on. Therefore, it is extremely important that educators pay attention to the warning signs (Ogden & Fisher, 2015; van der Kolk, 2014).

Unfortunately, teachers don't always see trauma for what it is and often misunderstand the traumatized student's underlying challenges leaving the student feeling even more alienated: "I don't like teachers. They don't understand that I can't understand it right away." Anna wasn't noticed until she had to attend noon tutorials to get her work completed, which was a struggle itself as her teacher observed above. Anna was clearly disconnected from school, peers, teacher, and even herself. I also observed her disconnect in the skills training group. She rarely engaged in group discussions, completed none of the homework, and resisted most opportunities to interact with other group members. I suspected that trauma was the underlying cause of Anna's inability to remember, concentrate, focus, or form trusting relationships with any of her peers or teachers. Anna's inability to not only be at school, but also to engage with school, her peers, and her teachers were clear indicators of severe emotional dysregulation that are often linked to early trauma (van der Kolk, 2014).

Anna's emotional dysregulation was so severe that she was clearly not ready for a group intervention setting. Even during our interview, Anna's mind frequently wandered off to her problems and she would get emotional: "I'm not very in the moment and it's just, I focus more

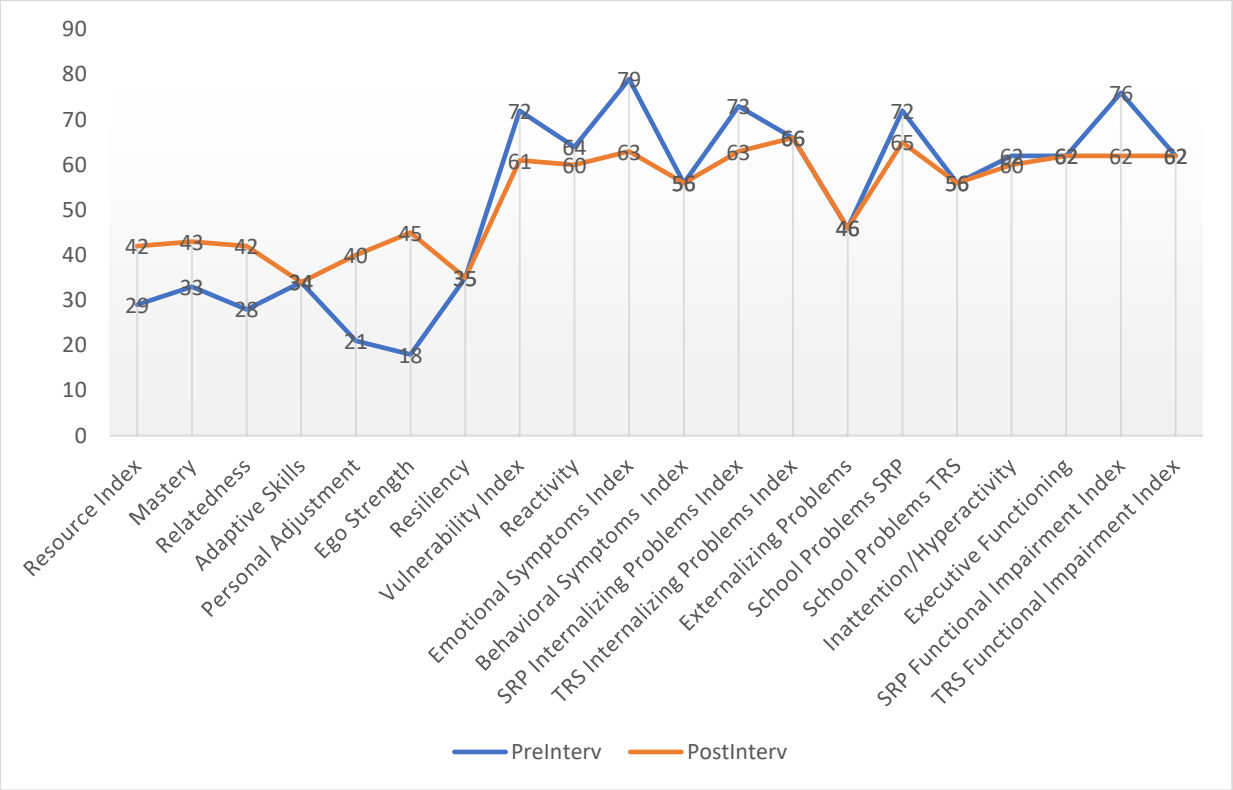
on the past." It made sense then, that Anna would find a group setting overwhelming and highly distressing if she experienced previous trauma. She reported that discussions about personal stuff triggered a strong emotional reaction that she was not adequately equipped to manage. A more appropriate intervention for Anna (which she suggested too) would be to provide intense individual therapy where her concerns could be addressed sensitively, and she could develop coping skills and resources one-on-one with a safe and trusting counsellor. Once Anna is emotionally prepared, group skills training could be added to her intervention program to further develop her interpersonal skills. This could be offered in a school setting if the counsellor has graduate training in Counselling Psychology and additional training in trauma. Otherwise, she would need to be referred to a clinical setting for treatment, if accessible.

Anna's scores on Trust and Support were in the Average range prior to intervention and worse after intervention. This may have been due to her working with a counsellor prior to starting the skills training group, but possibly not during or after. So, she may have perceived a safe, trusting relationship with her counsellor and/or group facilitator and felt that she was receiving the support she needed and when that ended, she regressed back to her previous perceptions. While this may seem unlikely, research has shown that establishing a safe and trusting relationship with one caring adult is enough to elicit change in trauma victims (van der Kolk, 2014). However, while experiencing positive relationships—even those that are short-term—can have benefits, inconsistent relationships (even with counsellors) can create more long-term damage (Linehan, 1993).

The skills training group was not a complete loss, however. Anna did report that she found the information to be useful despite being unable to apply the skills to her own situation, she attempted to open up and talk more despite difficulties talking about herself, and she gained some new perspective: "…listening and seeing that other people, some people have the same issues." So, while Anna's overall profile worsened after the intervention, she still felt that the experience had some value for her. From a resiliency perspective, Anna's case provided strong support for the need for early screening and appropriate interventions for at-risk students in our schools. Without the group, the seriousness of Anna's mental health concerns may have gone undetected by her teachers.

Emily. Emily was a 14-year-old female student in Grade 9. *Note: A TRS-A was not completed prior to intervention*. Emily's profile showed one of the most dramatic improvements

Figure 5.6. Emily's Resiliency and BASC-3 Profiles



of the seven students. The notable gap between pre- and post-intervention lines and the flattening of the post-intervention line are indicative of this. All composite and index scores were in the Clinically Significant range prior to intervention. After intervention, Emily's scores improved on average, by ten points or more—eight of the eleven composite and index scores even improved at least one full classification range (RSC-A and SRP-A only)! Ego strength improved two full classification ranges to Average, which was particularly interesting because it illustrated Emily's overall improvement in emotional competence, self-awareness, self-acceptance, and her adaptive strength—all key components of resiliency: "…you know, body image and all that judgment and all that, but that doesn't really matter. What matters is what you actually think—not what other people think about yourself."

Specifically, Emily improved on Internalizing Problems (Clinically Significant to At-Risk), Emotional Symptoms Index (Clinically Significant to At-Risk), School Problems (Clinically Significant to At-Risk), Personal Adjustment (Clinically Significant to At-Risk), Functional Impairment (Clinically Significant to At-Risk). These improvements were related to

improvements on Ego Strength (Clinically Significant to Average), Depression (Clinically Significant to Average), Self-Esteem (Clinically Significant to Average), Sense of Inadequacy (Clinically Significant to Average), Relationship with Parents (At-Risk to Average), Interpersonal Relationships (Clinically Significant to At-Risk), Mania (At-Risk to Average), Test Anxiety, and Attitude to School (Clinically Significant to At-Risk).

Emily's Personal Adjustment score increased almost 20 points, which speaks to her overall improvement with her relationship with her parents: "Well it's helped with me and my mom communicate more since I used to not be able to tell her anything, but a couple experiences have happened a lot like I have been able to talk to her." Her peer relationships also improved: "I need to talk to them, communicate with them if anything is wrong, or if like I have questions, I should ask or just talk to them—not just be sour to them." Her self-esteem and self-reliance improved: "Like, I feel way better about myself.…I feel it made me more independent cuz it made me work more instead of just slack off." These are critical personal and interpersonal resources that she perceived weren't as available prior to intervention. A closer look at Emily's RSC-A also showed improvements across all Mastery and Relatedness subscales.

Emily's highest score was her ESI, and when considered along with her Reactivity, Vulnerability, and Functional Impairment scores, indicated a highly emotionally reactive individual: "I feel that sometimes I have anger issues. And I can't deal with that properly sometimes. I just break out sometimes. I just start crying and like can't deal with it. Like, I give up." Post-intervention scores on the ESI and Functional Impairment scales improved a full classification indicating that Emily was much more effective at managing her emotions at school than before intervention, and her Vulnerability and Reactivity also improved indicating that she had a more adaptive balance between emotional reactivity and personal resources than before intervention.

Because a TRS-A was not completed prior to intervention, a pre-post intervention comparison of the data was not possible; therefore, interpretation was limited to post-intervention TRS-A data and interview data. While Executive Functioning and Functional Impairment scores indicated that her teacher still perceived some problems with completing school-related tasks, problem-solving, attentional, behavioral, and emotional control, Emily's Behavioral Symptoms Index, Externalizing Problems composite, and School Problems

composite scores were in the Average range, indicating that Emily's teacher still observed some important changes:

> It was really difficult for Emily because she's already weak in math as it is, but on top of it, she also was um not getting here everyday attendance-wise so she had a double whammy….However, she had made significant improvements, and I would say they probably happened from the end of May to most of June, you know…But, um, I'll tell you she made really good changes in her behavior and her ownership, her responsibility, even the way she talks you know. And she wasn't always like sour and down and beaten down and you know.

Emily's School Problems Composites paint a critical picture of her overall attitude change that speaks to the powerful effect of group skills training. Emily's SRP-A scores improved from Clinically Significant to At-Risk, indicating an overall improvement in her attitude toward teachers and school:

> Before I used to be like kinda depressed so I used to be like, 'Aah, I don't need to do this. I don't care. Let's just move on. Nothing counts.'…I used to like be just like slacking before I started the group and just like not really paying attention in school and just like, 'Oh I don't care, it's just school.' But like during the group, I realized I should try something different instead of just like slack off, and then I decided to change during the group that kind of thing, and then at the end of the group continue to do good.

Emily's teacher rated her in the Average range after intervention indicating that her academic achievement was not being hindered by motivation, attention, learning or cognition problems. Emily reported that despite the added challenge of missing a difficult class to attend the group, she gained independence and felt more motivated to complete the extra work that was required.

One additional area of Emily's profile that warrants discussion is her Functional communication (her teacher rated her in the At-Risk range). Because it's not a composite item, it's relevance to Emily's profile would go unnoticed. One constant observation I made as facilitator of the group was Emily's difficulties expressing herself verbally. Group members, as well as myself, found it a challenge to understand Emily's explanations of ideas, or descriptions of her experiences because her ideas were often fragmented and scattered. I often observed some difficult exchanges between her and her group members that left group members with confused looks on the faces. Additionally, Emily's interview was another example of her difficulties

expressing herself verbally. She stated that she struggled with communication: "Well, teachers and all that like I didn't really talk to them appropriately the way I should have been and using the proper language and vocabulary." I also found it difficult to understand what she was trying to say and often had to repeat or reword my question several times before I could clearly understand her response. It was no surprise that the DEAR MAN skill was the most relevant for Emily. This unexpected weakness—given her many strengths—suggested that Emily may have an oral language deficit, maybe even a specific learning disability in oral language that may warrant further assessment and support to help her develop her skills in this area.

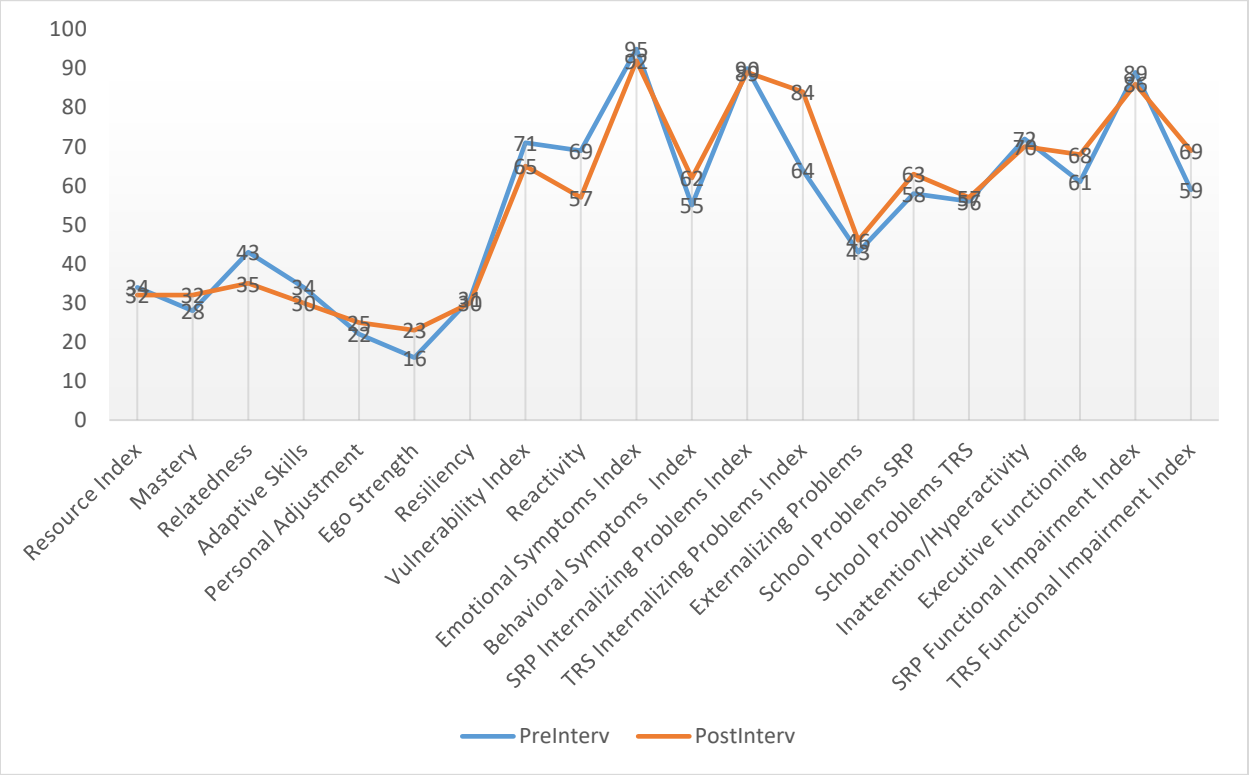
Overall, Emily's improvement demonstrated many strengths. Her motivation to change her personal situation was the key to her success, and while she may still have some areas of weakness that need continued support, she felt that the group skills training was valuable:

> It was like just like a good experience in all. I think it was good for me. At first, I was just like, 'I don't know if I want to do this,' or 'What if I don't learn anything.' I learned a lot with this group and I'm glad.

Peter. Peter was 14-year-old male student in Grade 9. Like Anna, Peter's resiliency profile showed significant emotional dysregulation (high degree of variation between clinical and adaptive composites and indexes) both before and after intervention. Unlike Anna, whose overall emotional dysregulation worsened, Peter's improved slightly with his most notable improvement occurring on his Reactivity (Clinically Significant to At-Risk) and Vulnerability indexes. Peter's SRP-A Anxiety score also improved. Declines were found on RSC-A Sense of Relatedness index (at-Risk to Clinically Significant) and the TRS-A BSI (Average to At-Risk), Internalizing Problems (At-Risk to Clinically Significant) and Functional Impairment (Average to At-Risk) indexes, as well as Anxiety (Average to At-Risk), Depression (At-Risk to Clinically Significant), Somatization (at-Risk to Clinically Significant), and Adaptability (At-Risk to Clinically Significant) scales.

While the teacher interview supported the TRS-A data, Peter's interview data somewhat contradicted Peter's SRP-A data, suggesting that Peter's ratings of himself on the SRP-A were more negative than expected. The *F*-Index score was in the *Caution* range both pre-and post-intervention, which questions the validity of Peter's responses on the SRP-A, and suggests that there may have been mediating factors impacting these results such as completing post-intervention measures during final exams.

Figure 5.7. Peter's Resiliency and BASC-3 Profiles



An alternative interpretation may be that Peter's assessment of his experience is a true reflection of pervasive depression and anxiety symptoms that impact his ability to manage everyday school stressors effectively, despite developing some coping resources. Furthermore, Peter's ability to perceive any growth may have been inhibited by his pervasive poor self-judgment, which is characteristic of someone experiencing significant anxiety and depression—Peter's Depression score was the highest of the group at *T*=103. The skills training group was completed approximately one week before final exams began, which was immediately followed by completion of the post-intervention SRP-A and RSC-A. This likely increased Peter's stress levels significantly and; therefore, his elevated stress may have more negatively impacted his ratings of himself due to his already low self-esteem and low self-confidence.

These results could possible reflect Peter as a student who needs more intensive support than what his teachers were originally aware of. This pattern of results suggests several areas of vulnerability that may continue to interfere with academic achievement if not addressed and speaks to the role a DBT-A skills training program could play in developing a student's

Individual Program Plan (IPP). Peter's teachers observed this as well: "he'll be an intensive student next year, and he wasn't this year."

Like many students, Peter felt that he didn't fit in: "I don't really match the social norm and I kinda don't much—I wanna fit in more um to what everyone thinks." A common response to the question, "What would you change about yourself if you could change one thing?" was "What I look like." In addition to feeling "socially awkward", Peter reported feeling that he couldn't manage difficult situations on his own: "…before I couldn't really do anything by myself," and would instead "escape and pretend this wasn't happening," often running home. His teachers confirmed this: "Last semester he would have [just gone home], and in Grade 8 he would have gone home, and in Grade 7 he would have gone home." So, while Peter may have showed signs of improvement in his ability to face challenges with less reactivity—his Sensitivity and Impairment subscales improved one and two classification ranges, respectively, and his Self-Efficacy improved to the Average range—the stress of final exams may still have triggered those prior feelings of extreme self-doubt and thus, Peter—not having fully realized the improvements he made—may have simply regressed to old habits of harsh self-assessment. Interestingly, Peter did not want to be interviewed immediately after the group was finished due to being too stressed out over finals. When interviewed two months later during the first few weeks of Grade 10—the stress of final exams was removed—Peter's assessment of his situation was much more positive:

> My anxiety and depression have almost seemed like to have faded away cuz I know how to not think about it so much; about how this could happen or this could happen. I'm just kinda now more in the "now" of things instead of the past or future of it and yeah, my anxiety has gone away mostly and my depression, same thing.

One final positive change was that despite quantitative data showing only a few improvements, both Peter and his teachers still observed some strengths that can be built upon in the future. "He's developing some grit," one teacher noted. Another teacher noted, "I've seen you know, from where he was in our math group and running home almost all the time and missing class. He's sticking in there." Peter, himself reported some positive changes in his approach to challenges:

> I think it made me more accepting of everything that's happening and now when I do things, when the road starts to get a little bit more bumpy, I can just go. I can just glide through it instead of um stopping at every bump and panicking about it."

Social engagement was another area that Peter's teachers observed notable changes:

> Well coming from a kid at five-minute break that would sit in his desk and look down like he was sleeping to looking over to [student name]…and he would get into a conversation with him….at five-minute break or after school, he'd be standing in the hall and I would wonder if he doesn't come here early just so he can start talking to everybody in the hallway.

Peter also reported that his interaction with others changed for the better as well:

> Like before Mind Matters, I didn't go out, like I didn't do anything um, but after, like my mom is very happy that I'm going out more, talking to friends more, and just out in the world like, I do my own stuff….I'm contributing more and I was integrating more um, and I'm not afraid to like ask questions or do anything so…

Perhaps the most significant benefit of the skills training group for Peter was a sense of hope that he wasn't "crazy" and that *he* could change his situation:

> It made me feel better about my situation and like what I was going through since I knew "Hey, these people who like go to my school are going through the same thing," and it just made me feel relieved that I wasn't like crazy.

Peter's new perspective was in fact, an experience shared by all seven students in the skills training group, which speaks to the power of a group intervention like DBT-A: Regardless of the unique profiles of these individuals, the group skills training intervention provided a critically important resource that everybody requires for resiliency: Hope.

These resiliency profiles served to illustrate the multiple factors that impact the daily lives of at-risk students. The fact that emotional and behavioral changes overall varied in construct and degree over the 12-week intervention is evident of the complex interactions between these seven students and their environments (Cicchetti, 2013; Masten, 2011; Tilleczek et al., 2011). Furthermore, interventions deigned to support at-risk students must be sensitive to the complex needs and lack of resources that these adolescents bring to school (Malekoff, 2014). Finally, the profiles provided support for the argument that school-based skills training programs have a positive impact on emotional regulation and overall resiliency.

Overall Themes from the Group Skills Training Experience

Research Question 2: What personal, interpersonal, and contextual risk and protective factors impacted students' emotional and behavioral functioning at school? Five central themes emerged from both quantitative and qualitative data and can be seen throughout the individual resiliency profiles. A final discussion of these themes was warranted because they serve not only to illustrate the common experiences that the seven students shared, but also to shed light on the experiences that many adolescents in high school share. The fact that these themes speak to the three-factor model of resiliency is not surprising. The five themes were identified and broadly interpreted as areas that may impact school engagement: (1) Personal challenges and strengths, (2) Connection to others, (3) Connection to school and learning, (4) Psychological Challenges and strengths, (5) Capacity for personal growth.

Before discussing overall themes, I need to explain my personal challenges conducting the interviews. First, when asking the questions, I found I needed to paraphrase and try to interpret what the student was trying to articulate. The challenge was to not *lead* the student to any presumed answers, but instead to simply get to the center of what they were trying to express. My experience in the group made me aware of how limited these students' vocabulary was and how challenging it was for them to articulate what they were thinking or feeling. It was necessary to interpret what the students were trying to say, paraphrase, and then ask for clarity and accuracy. I frequently reminded students of this approach to ensure that I was not leading them to any perceived *right* answers.

A second challenge was analyzing Anna's interview because her experience was significantly more difficult that the other six students; therefore, her responses required me to look deeper at the meaning of her responses as they related to her own personal situation.

Another challenge was controlling for my own subjectivity while interviewing so not to violate the client-counsellor privilege. As a counsellor, it's normal practice to ask certain questions that "dig deeper" into the experiences of the client because the counsellor has knowledge of the details of the client's experience; however, doing so would generate responses that could bias the overall themes. I was frequently faced with the question: Do I pursue this line of questioning, or will this become a counselling interview? I chose to err on the side of caution and not ask the student to elaborate further. While this may have limited the depth of data I could have potentially gained, having worked with these students and understanding their

challenges with trust and sharing personal information regarding kept me mindful of their personal safety. Nonetheless, I my analysis and interpretations were still based on my knowledge gained from group sessions in addition to the interviews and observational data.

Personal challenges and resources. This theme reflected those challenges relating to the individual's personal resources and vulnerabilities and illustrated the importance of these resources as they relate to the Three-Factor Model's Sense of Mastery. Overall, students seemed to be confused about who they were as individuals (self-concept) and this was evidenced by negative self-concept, lack of self-acceptance, external locus of control, and a general lack of awareness of values, goals, resources, and strengths.

All seven students either perceived that others judged them negatively, or experienced invalidating interactions with others. Matthew reported feeling "invisible" with family and at school. Mary reported "my friends were always annoying me and ignoring me sometimes and I'd think that they don't like me because I have something wrong with me." Karen was bullied due to negative judgements about her appearance resulting in her becoming very self-conscious of her appearance. Peter was worried about "fitting into the social norm" of being "skinny and muscular." Anna wanted to change everything about herself because she felt that everything about her was flawed. Both Andrew and Robert were worried about embarrassing themselves in front of others. Emily reported, "they weren't really interested and just like didn't really listen to me and what I had to say." All seven students perceived that they weren't viewed by others in a positive way and this shaped how they perceived themselves. Indirectly, negative interactions with caregivers, peers, and others were internalized as meaning something was wrong with the students themselves, and the students perceived these personal challenges as character flaws rather than simply a skills deficit or a lack of resources

Self-acceptance is also highly connected to one's awareness of personal strengths. Mary felt a strength was that she was "a good person." Emily noted that she was "friendly" and "a kind person." Robert noted that his "style" was his greatest quality. Andrew stated that "patience" was his greatest quality. Peter perceived that his ability to frequently change moods quickly from very angry to very happy in a matter of moments was a strength. However, dramatic mood changes are considered maladaptive—not an area of strength. Unfortunately, Anna struggled to identify any positive personal qualities. What was interesting about these comments was that they illustrated how they viewed strengths as either a physical or character

attribute, which speaks to the research on self-concept development and its relationship to self-image (Arnett, 2013). Emily, Andrew, and Mary were the only students who observed a strength in character (kindness, patience, and friendly), while the other four identified physical attributes as a strength. Furthermore, this pattern of identified strengths suggests that the four students who identified physical attributes have either had little opportunity to engage in character-building interactions, or have been too focussed on their "flaws" to realize their actual strengths, many of which I observed during our sessions together.

Whether responses reflected intrinsic qualities (character attributes), extrinsic qualities (physical attributes), or an inability to recognize any positive qualities also relates to these individuals' sense of locus of control. Locus of control is an underlying factor of self-efficacy and involves an individual's perceived ability to control or affect change in his or her environment and is related to perceived strengths and resources. Peter, and Karen reported wanting to change their appearance because they were focussed on others' behaviors and felt they had little control over that, Anna reported wanting to "change everything" because she felt she couldn't control how others judged her, and the other four reported wanting to change something about their personalities because they believed this would change how others responded to them. Emily, Robert, Mary, and Matthew all perceived that they were in control of their fate while the other three did not. Individuals who perceive an internal locus often have a greater sense of self-efficacy, while those who perceive an external locus often have poor sense of self-efficacy (Dweck, 2006).

Individuals who experience frequent success can often recognize their achievements and these successful experiences develop one's sense of self-efficacy. Conversely, individuals who experience frequent failure often have "learned helplessness…by which failure experiences may lead to expectations of failure and decreased efforts to succeed" (Seligman, 1995) as cited in Prince-Embury (2014, p. 27). While Anna, Karen, and Peter reported not experiencing any achievements, the other four students reported "making it to high school," "I achieved in Math," and "I made the honor roll." The fact that three of them appeared to be surprised by this achievement suggested that they may not have been aware of their strengths that contributed to their successes or that it just happened without their active contribution. Again, Anna, Karen, and Peter's responses highlight how few experiences of success impact perceptions of one's strengths and locus of control. Overall, all seven students struggled to identify many successes

or achievements, which suggests that they perceived possessing few personal resources needed to effect change in their environments prior to the intervention.

Further evidence of students' perceived lack of resources was provided by students' reports that they seldom sought help from anybody about their difficulties. Anna simply "didn't talk." Mary reported that caregivers, teachers, and friends "tried to help, but I just wouldn't listen." Peter reported that he "pretended it wasn't happening" and just "kept a low profile." Andrew reported that he often kept to himself and worked on assignments and that he never really talked to teachers much. Robert and Andrew both made conscious attempts to avoid speaking up in class or asking questions when needed. Karen only talked to people "only if I really trust them." Emily reported that she was unable to talk to her mom about anything. Andrew and Matthew were not aware of the school counsellor as a resource, let alone seek out her help. Four students knew about the counsellor, but only because they had been referred to her by their teachers, not because they themselves perceived her as a resource. Anna was the only student who sought out the counsellor's help on her own initiative.

Overall, interview data and observations in sessions suggested that these seven students struggled to see their worth as individuals. They had a negative self-concept, and lacked awareness of their own strengths and resources.

Connection to others. This general theme reflects those challenges and resources relating to interactions and engagement with family and friends, which speaks to the model's Sense of Relatedness. One potential challenge for students was family structure and dynamics. There is extensive research on the impact of the family context on psychological development and resiliency (Arnett, 2013; Cicchetti, 2013). Of all seven students, only one student reported that the family was intact with both parents and siblings living together in the home. The other six students reported several different scenarios: single-parent with all siblings living in the home, single parent with only some siblings living in the home, having siblings but living with grandparents alone without the siblings, and living in foster care. Six students had little to no contact with a parent and several students reported either significant conflict or lack of interaction with their present caregivers. Andrew felt "ignored as part of the family." Mary experienced "A ton of conflict." with her parents. Anna and Emily both reported that their mom "just stuck to herself," so they didn't really talk a lot. Additionally, several students had experienced physical and/or verbal abuse by a caregiver. Given the research on attachment

theory, positive family attachment with caregivers is an important resource for children and adolescents. Those who do not experience a supportive connection to parents or siblings often lack an appropriate model for establishing and maintaining positive future relationships (Linehan, 1993; O'Dougherty, Wright, Crawford, & Del Castillo, 2009. Based on interview and field notes from sessions, all seven students experienced significant family challenges and did not perceive family as a source of support.

Given the family challenges that students experienced, it was no surprise that students made several references to safety, trust, and comfort with others when interviewed:

> Every time we came there I noticed it was kinda awkward: everyone sort of had trouble coming out of their shells I guess (Andrew).
>
> …having something in common with you (teachers) shows that like your comfortable with them and like you won't be shy with them…It (the group) was a safe place to be yourself. It was very safe (Robert).
>
> Having everyone in the group kinda like connect with each other—that was the best part of it because you're not nervous to talk about anything and you could be more open since you know who they are (Peter).

Another interesting pattern of behavior that suggested lack of social connections was how all seven students lived isolated lives outside school with little or no interaction with other adolescents. Anna either slept or read after school, Peter either listened to music or played video games, Andrew did homework, or went for walks alone, Robert walked his dogs, and Emily spent most of her time watching younger siblings. Karen had a part-time job and spent some time with friends, but most spare time was spent with family (she also had a bug phobia which frequently prevented her from being outdoors). Mary participated in activities that involved her love of animals. None of the students participated in any group extracurricular activities after school (other than Andrew, but this was during lunch). This pattern was interesting because it speaks to the limited opportunities these students had to engage in social activities to not only learn about themselves, but also to learn about themselves in relation to others. While Peter, Anna, Robert, and Karen intentionally avoided any group activities, Emily and Mary reported having limited resources to be able to participate in such activities, which speaks to the lack of financial resources some at-risk students experience. I believed both would have been eager to participate in any social activity outside school if they had the opportunity to do so. I also

thought this was related to their eagerness to participate in the group: They perceived it as an opportunity to interact with others that was not afforded to them otherwise.

Social interactions at school were either negative or absent as well. Mary reported experiencing ongoing conflict with friends resulting in having to make new friends from year to year: "Before, my friends were always annoying me and ignoring me sometimes, and I'd think that they don't like me because I have something wrong with me." She was often "the shy girl in one corner of the room." Robert usually "kept a safe distance" from peers due to his shyness. Andrew reported not having "many social interactions with anybody in the classroom….I always sort of felt invisible in physical activities, or around…even around my friends, really." Emily shared that while she had a couple best friends, other school peers "weren't really interested and just like, didn't really listen to me and what I had to say." She often felt social situations were "awkward and silent" for her. Anna disliked people, peers, talking, and school. She perceived being in high school as simply, "stressful" due to "social challenges." Finally, Peter clearly stated that he disliked social interactions because he felt negatively judged by his peers. "Trying not to do anything dumb" was a constant challenge for him since he wanted to "fit in more to what everyone thinks." It appeared from these reports that the students wanted to have positive connections with others at school, but were simply unsuccessful at establishing or maintaining them.

Connections to school and learning. This main theme illustrates the students' resources and challenges of being a high school student and relates to the model's Sense of Mastery and Sense of Relatedness. Four sub-themes highlight what students perceived as factors that impacted their experiences: Social needs, learning needs, connection to teachers, and expectations for positive experiences. Social environment and social experiences appeared to be not only a significant challenge for all seven students, but also valued as a significant resource that was lacking. Social experiences mediated all seven students' perceptions of their success in high school—moreso than academic achievements. Whether the social environment was positive or not impacted their expectations of success and this seemed to impact their level of connection to school and learning.

Social needs. When asked about their experience as a high school student, five of the seven students responded referencing the social dynamics of high school. Karen commented that there's "always going to be a lot of drama." Mary exclaimed that "it was fun meeting new

people." Robert shared that high school was "kinda scary sometimes." You don't know a lot of people and you're trying not to embarrass yourself." Anna gave a one-word response: "Stressful." When asked to elaborate, she simply said, "People, classes, grades." Peter referred to the need for blending in: "In elementary school you could be the class clown and everyone would love it, but like high school, you have to blend in more…"

Prior to participating in the skills training program, six students reported feeling disconnected from the social world at school. Five students reported that they had at least one good friend either at school or outside of school, yet they either perceived themselves as not being liked or invisible, and they seldom felt part of the larger social environment. Anna reported not having any friends. Mary reported having to frequently "make new friends." Andrew was the only student who participated in an extracurricular activity; however, I didn't get the impression that Andrew engaged on a personal level very much with other members of this group. Karen felt she had no social issues with peers or teachers. Teachers' observations and interview comments confirmed these reports. These social experiences suggested that although an individual may have a friend to connect with, a sense of connection to school and peers may still elude them.

Learning needs. While I did not ask explicitly what students' learning needs were, students' interview responses were laced with references to specific learning needs. All seven students repeatedly mentioned the need for more interactive and experiential learning because they not only perceived this as a social opportunity, but this also helped them engage and learn the material. Mary explained, "I thought it was kind of cool to learn about other people instead of just learning about yourself." Emily stated several times how just being in the group to learn the skills was better than learning them individually: "Just the whole experience of being in the group to learn all those skills…rather than being alone or just a couple of people." Robert felt that the part that helped him the most was the "interactive stuff, games and the filed trip." Karen wanted "more hands-on things because I'm a hands-on person." Although Anna didn't engage very much in the program, she admitted that the experiential activities helped her the most: "I liked the walking around one cuz it helped me relax." Andrew stated that "when we were being teached and listening to how we were supposed to acts differently in situations instead of like actually acting in specific situation, it felt like sort of dull teaching I guess."

Another need that was uncovered was relevance of learning material, not just during sessions, but also in the classroom. All seven students felt that they were more engaged with the material when they could relate it to their own experiences. During sessions, I observed students engaging more when the skill being taught was more relevant to their specific challenges. When learning Interpersonal skills, Karen was the least engaged because she felt she "didn't really need that a lot." Both Andrew and Robert came to life when I taught the Interpersonal skills. Mary, Karen, Peter, and Emily were the most engaged in the Distress Tolerance sessions. Another interesting observation was how different students would become more engaged in conversations in which someone told a personal story that others could related to.

Several students echoed the same need for relevance in the classroom. Mary felt that "teachers don't teach any life skills…how to be adults in the world." Peter felt that some teachers "just talk and give out homework." Andrew felt that "we're not really learning what we need in order to succeed in life… anything of relevance anymore…like practical, relevant information for an adult." I frequently observed how students referenced the importance of life skills as part of their learning and how this was lacking.

Another need related to learning was modelled learning. All seven students felt it would be beneficial to learn from others' experiences: How they solved different challenges they experienced. Andrew summarized this nicely: "meeting with all those people every week, it sort of helped me sort of uh get to know how I'm supposed to act around other people." Throughout the 12 weeks of sessions, students would frequently ask if I could demonstrate how to use a skill rather than simply discuss it and then do the suggested activities. Even though the manual gave specific directions on partner-work or whole-group work, students were usually more interested in the activity if I could demonstrate what the skill looked like "in real life." I would usually do role-playing with a student or I would have students suggest scenarios that I would respond to using the skill. Students always responded more actively when this was done.

I believe that whether or not students' learning needs were met had an impact on their connection to learning, which was an important factor that impacted their engagement with school (Lessard et al., 2008). Furthermore, what the students perceived as the overall meaning of school for themselves—what was taught, why, and how it was taught—was influenced by the extent that their learning needs were met. Six of the seven students perceived school as a means to an end—"to pass high school," "to get a job," or "to have a better life."—not an end in itself,

which was illustrated by their perceptions about school achievement discussed previously. Mary felt that "teaching a student about what life is going to look like and not going to look like," and teaching "life skills" like "how to use a credit card" were important. Andrew had a similar sentiment:

> I don't really think that as of recent years, schools have really been teaching their students any relevant information anymore. Because we were not really learning what we need in order to succeed in life…stuff like how taxes work and how to buy a house.

Mary reported that school achievement lead to "getting a home and getting a good career." Andrew felt that his education was about acquiring "knowledge and experience to help guide you in the future." Anna simply stated, "I know you need it," and "It will make my life a little easier." Peter felt that "It matters who you are and what you're capable of doing." He stated, "I don't really think that like achievements and school will really matter in the end." Emily was the only student who felt that learning itself was enjoyable: "Well, just like, I like to learn things—just the process of learning things is difficult."

Connection to teachers. In addition to needing connections with peers and learning several students discussed the importance of having a connection with their teachers (Lessard et al., 2010), and each student had a different perception of what factors impacted that connection.

> Students are likely to display positive aspects of social and academic adjustment when they perceive their teachers and peers as: providing clear expectations for social and academic outcomes; providing help, advice, and instruction to achieve these outcomes; creating a safe and non-threatening classroom environment; and providing emotional support (Wentzel et al., 2010, p. 193).

Karen reported that she "never really had much of a relationship with the teachers here," but felt that "most of them were supportive probably." Mary recognized that her teachers "tried to help [her] and that they were "easy going." Karen, Robert, Peter, and Anna listed several qualities that reflected the importance of understanding the student on an individual level:

> Well if they're somebody who like doesn't really care how you are—they just care about actually teaching it and getting the job done—then it would probably be harder for you to connect with them and to learn (Karen).
>
> Getting to know the student and having something in common with you…and being comfortable with them and like you won't be shy with them….If they knew each other,

> the teacher wouldn't go so hard on them and the student will know…what the teacher wants so that the student will know like to get his work done…for the teacher to be happy for him (Robert).
>
> They understand you. If you have issues with stuff, or you need extra help….they understand what you need—not just what everyone needs—because people are different (Anna).
>
> …the ability to learn what each student is going through…If you can connect to your students in class, um, they'll like be into it [learning] more (Peter).

These sentiments are consistent with recent research on the importance of student-teacher relationships. Lessard and colleagues (2014) found that:

> Both dropouts and resilient students reported that a good relationship with a teacher was fundamental; moreover, they added that this relationship was nurtured when the teacher was available, and showed a genuine interest in his or her students, and was warm and understanding (p. 107).

Expectations. Students' expectations of benefits in addition to their fears of failure often determined how motivated they were to participate in the group and engage in activities. These benefits included learning benefits and social benefits and were related to the individual's personal learning and social needs. Students had different expectations about the group:

> I didn't really think I'd like having all those people around…and since I didn't have the best grades, being out of class wouldn't be the greatest….that it would be a waste of time…I have no idea if it'll help or making things worse since it's a group environment…I thought if it wouldn't work, like I wouldn't enjoy it or anything (Peter).
>
> People would just talk about their feelings and that it would be like one of those stereotypical things you would see…in movies….I was willing to give it a try but like I was thinking that if I didn't really want to be in it, I would just leave (Karen).
>
> I thought it was kinda goanna be like not necessarily boring, just like a little bit, just kind of like scary I guess cuz new people, not knowing what we're gonna be doing…(Emily).
>
> I thought it was going to be like just a regular meeting—not like fun and games (Mary).
>
> I thought it was going to be a bigger group (Robert).
>
> I thought it was going to be kinda weird I guess cuz lots of people were in it….I assumed we would just talk for hours and hours (Anna).

What I gleaned from these expectations was that on the surface, the students expected either negative social experiences, or that there would be no social benefits, and they that wouldn't gain any learning benefits. Despite these low expectations, the students still participated, which suggests that on a deeper level, there was some expectation that their social needs may be met. Furthermore, once these social needs were met, they started to engage and gain the learning benefits.

Positive experiences appeared to be a significant factor relating to students' expectations: If the students perceived the experience as positive, he or she was more likely to engage and interact. The opposite was also true. I observed this throughout the skills training sessions. Despite having low expectations for the group prior to starting it—"yeah, expectations were low"—all seven students still came *and stayed* for the duration. I interpreted this as the students *needing* positive experiences and their low expectations were simply overridden by this need. This is what motivated them to join the group and to keep coming each week:

> And the fact that they were willing to give up their lunch hour you know, cuz you know, that speaks volumes to those kids; however, many of them leading into that didn't have a lot of friends and the peer pressure of pulling them out, right (Ms. Lowe).

Furthermore, students related their positive experiences to their need for social connection: "the least fun part of it was that I didn't really know anyone…" (Robert, referring to the beginning of the group). Mary asserted, "My experience was really good. I liked it and I wish you could stay here longer and keep doing this group." Andrew felt the same way: "I wished it would have gone a little bit longer I suppose." Peter, Emily, Andrew, and Karen expressed the social connection factor:

> It was just making it fun and having everyone in the group kinda like connect with each other. That was the best part of it (Peter).
>
> I really liked it. I got to experience meeting new people, like I obviously knew them from school, just not like friend-wise I guess. I got to learn many different skills with them. I got to do many different activities them and I really liked it (Emily).
>
> When everybody is laughing and trying to have a good time, there's no awkward air that's deterring you from making any sort of conversation. I wasn't really focussing on anything that I might possibly be doing wrong , and I don't think anyone really was (Andrew).

You make friends (Karen).

When asked to rate their overall experience on a scale of 1-10, Mary rated her experience a 10, Robert, Andrew, Peter, and Karen rated theirs a 7, and Emily rated her experience as an 8.5-9. Anna rated hers a 5. These ratings suggested that students' expectations were exceeded, and while the need for validation wasn't explicitly articulated by the students, I believed that validation of their individual selves was one of the key reasons they found the group experience positive. This belief reflects my training in DBT and my assumptions about the significance of validation for at-risk students. Because they have fewer social supports and resources, the need for validation is even greater for these students. I also believe that validation was a significant factor that motivated the students to stay in the group for the entire 12 weeks, even if they perceived less benefit from the skills training itself:

> It made me feel better about my situation and like what I was going through since knew, hey, these people who like go to my school are going through the same thing and it just made me feel relieved that I wasn't like crazy (Peter).
>
> There would be a lot more people that have the same problem as you and you could get along with them… (Robert).
>
> Group is probably better because you can see what it's like for others. It would help me see that I'm not the only one going through it (Karen).
>
> You allowed us to speak our minds about like what was happening and you allowed us to like have this amount of time to just talk about stuff…(Peter).
>
> I think it was really fun. And I got to know more people. Like I was a bit shy at the beginning but I started not to in the end…everyone was respectful. I got to show like my true feelings to them. It's like some of them had like the same feelings as I did (Robert).
>
> It was good to be in the group. I really liked learning about new people and getting to know new people instead of just being that shy persona in one corner of the room. You end up speaking out and hearing other peoples' stories (Mary).

It was clear to me that the students needed an opportunity to share their stories and to have someone listen to them. Six of the seven students reported making new friends because of their participation in the program.

Psychological challenges and resources. This theme relates to the Model's Emotional Reactivity and illustrates students' emotional challenges and resources, which reflect the two

central mechanisms of emotional dysregulation—emotional control and the ability to engage in goal-directed behaviors when distressed. Prior to intervention, all seven students had elevated levels of worry, anxiety, depression, and internalizing symptoms, and interviews revealed that the underlying causes appeared to be related to one or more of the targeted areas in DBT: confused sense of self, impulsivity, emotional dysregulation, and/or interpersonal problems (Groves et al., 2012). Their emotional sensitivity and reactivity caused impaired functioning in social interactions and their ability to connect with school and complete school tasks. School problems created more worry and anxiety. A negative cycle appeared to exist (Wang & Fredricks, 2014):

> My mind just goes off and gets super mad and holds that stress in and then I can never get it out. Running away not dealing with stress properly (Mary).
>
> I had anxiety around assignments. I've been having a bit of sleeping issues (Andrew).
>
> I feel that sometimes I have anger issues and I can't really deal with that properly sometimes. I just break out, sometimes I just start crying and like I can't deal with it, like I give up. I don't think of other ways and alternatives to deal with the problem (Emily).
>
> Being bored all the time with nothing to do and um not really having a lot of friends here. Like worried that like I'm not going to finish my work or like worrying that I'm not going to fit in and like stress about the work and stress that I don't have much friends (Robert).
>
> A lot. Just with myself or with my dad really. Anxiety, depression. I act a lot like to conceal it moreso…nobody would think that I do cuz I act like excitable…(Karen).
>
> I was dealing with a lot of like anxiety and like depression problems and I was isolating myself from like other people cuz I thought like I'm the only one experiencing this and I needed help, but…(Peter).

Anna experiences significant social anxiety that caused her to relentlessly think about these challenges in class rather than paying attention to what was being taught: "I think about other stuff during class, not what I'm supposed to. Cuz I'm not very in the moment and it's just I focus more on the past." Andrew expressed his need for "taking a little bit of time off of things to…clear my head after the day," suggesting that he may have frequently felt overwhelmed and needed an outlet to alleviate his stress. I sensed the same issue for all the students in the group: They had few outlets to alleviate their stress and therefore, became frequently overwhelmed.

The group skills training was perceived as such an outlet for these students—particularly Anna, who still came despite her difficulties engaging with the group.

Research has shown that emotional challenges are correlated with motivation and low achievement (Rempel, 2012). When students are focussed on their worry, stress, anxiety, and depression, they are not able to focus on their school work. My own personal experiences were similar:

> If I don't put my mind to it I'll procrastinate and then it will be late or I won't study….I almost failed two classes. I wasn't at a great point in my life so I wasn't trying (Karen).
>
> Before, I used to be like kinda depressed so I used to like, aaah, I don't need to do this, I don't care, let's just move on, nothing counts (Emily).

All seven students struggled to complete assignments on time, to study, or to hand in homework and; therefore, all seven students attended a tutorial class intended to give them extra class time and teacher support to complete their work. Students' teachers noted the challenges students experienced with academic work:

> Well, Emily, who is in my math class, it was really difficult for her to miss that Period 4 because she's already weak in math as it is, but on top of that she was also not getting here everyday attendance-wise so she had a double whammy (Ms. Smith).
>
> [Robert] was just not successful in Math. He ended up with a 40 percent overall so he is going to repeat, maybe just take a bridge Math. Just major gaps overall.
>
> Last semester he [Peter] would have just gone home and in Grade 8 he would have gone home and in Grade7 he would have gone home (Ms. Smith).
>
> If she [Anna] had it her way she would sit and read a novel the whole time and not deal with whatever (Ms. Lowe).
>
> Like before, it'd be like NO! He [Andrew] would argue or he'd be set in his way (Ms. Smith).

All seven participants in the group skills training program highlighted a critical factor to consider when planning school-based interventions for vulnerable students: until their psychological needs and challenges are addressed, engagement with their academic work and connection to their learning is unlikely to occur with much success for these students.

Capacity for personal growth. This overall theme further illustrates the need to address psychological well-being for at-risk students and relates to tall three of the Model's resiliency

factors. All seven students reported a change in their perspectives toward themselves, others, and/or school, and examples of these new viewpoints were highlighted throughout the individual profiles. Peter effectively summed up the group's new perspective:

> At the end, I knew what my problems were and cuz school work was easy to catch up with at night, but gaining personal health like mental health like stable is already better than school work so I didn't mind missing classes. I'm more outgoing. I'm not socially awkward as I was. I can go out in the world and be more independent. Before I couldn't really do anything by myself.

Robert added, "I'm contributing more and I was integrating more and I'm not afraid to ask questions or do anything."

One important result of the group skills training intervention was how students realized that they were not the only one dealing with personal and social challenges, which appeared to move their attention from self-focus (worrying about their perceived flaws) towards focussing on interacting with others (Hoffman, 2014; Mor & Winquist, 2002). What made this new self-awareness significant is how it influenced whether the students *avoided or interacted* with their peers, teachers, learning, and school activities (Deci & Ryan, 2000; Ryan & Deci, 2000; Reschly et al., 2008; Vansteenkiste & Ryan, 2013). Mary, Peter, Andrew, and Emily observed how feeling better about themselves made them more outgoing. Robert's social confidence increased: "I think I'm more happy. [I] kind of feel like I can embarrass myself." Karen, and Peter's new perspectives opened their eyes about the value of completing homework and motivated them to work harder at school.

> I'm trying harder this year than last year cuz last year like I said I didn't really care, but now I do cuz I realized that this is what's starting to shape my future (Karen).
>
> After the fact, I probably would have done more of the homework since I knew like, that it would benefit me more than not doing it at all (Peter).

What emerged from their experiences was a new perception that school as something more personally meaningful. Karen and Emily learned perseverance: "You can't really give up on something because you don't like it." "Everything counts." Robert felt that "making [new] friends and finishing all your work and like just showing up to school" meant he was successful. These examples of perspective change, as well as the many examples throughout the resiliency profiles, provided evidence of the interpersonal processes underlying emotional regulation

development (Hofmann, 2014) and how these processes impact motivation and engagement in school. Having new outlooks, more positive perceptions of their personal resources, and confidence in their ability to cope in social situations appeared to increase their motivation to engage in their social environment and their learning.

Summary of Risk and Resources

The five overarching themes support previous research findings that connecting to one's self, parents, peers, and teachers are critical resources that at-risk students need to engage with learning and school achievement (Knesting, 2008; Lessard et al., 2014; Tilleczek et al., 2011; Wentzel, Battle, Russell, & Looney, 2010). It appeared that because their overall social experiences were more negative, the students were less focussed on learning and school achievement and more focussed on establishing "social lifelines" (Lessard et al., 2014). After the intervention, the students reported that the group skills training was a positive social experience from which they gained a new perspective, learned useful social skills, and even made new friends. Furthermore, they reported more regulated emotions due to increased emotional coping resources. Having increased resources allowed the students to be more attuned to their academic goals and they could focus more on completing assignments and homework. Their emotional challenges were less of a central focus after than it was prior to the group skills training.

While many of these may not have been significant from a quantitative perspective, they were certainly heading in a positive direction, qualitatively speaking. The overarching themes that emerged from this study suggest that relationships play a critical role in at-risk students' emotional regulation. These themes further suggest that it's important for educators to create positive social experiences for students because having a strong sense of mastery and relatedness improves psychological well-being, reduces emotional dysregulation, and is more likely to promote engagement with their learning (Langenkamp, 2010). If educators can be more effective at fostering resiliency in at-risk students by increasing their social resources, the risk of poor academic achievement levels and dropping out for these students will likely start to decrease (Martin & Dowson, 2009).

CHAPTER 6

Discussion, Limitations, and Future Directions

Discussion

To address concerns related to student achievement in Saskatchewan, the issue of identifying at-risk students and implementing effective intervention needed to be examined. By exploring a high-school-based DBT-A skills training program, I attempted to answer three research questions, which provided valuable insight as to how educators can best serve the needs of at-risk students and support their success. The results of the current study provide a strong argument that educators must ensure evidence-based interventions are being delivered by well-trained professionals to ensure students have opportunities to develop their psychological, social, emotional, and cognitive resources. This is critical to fostering resiliency and minimizing vulnerability to school failure.

Research question 1: What challenges and opportunities did the participants experience with the implementation of the modified DBT-A group skills training intervention?

This question served to gain insight on the challenges of delivering a program like Mind Matters in a school setting and these factors were highlighted in Chapter 4. Abrami and colleagues (2008) argued that researchers need to provide more descriptions of the instructional and personal characteristics of their programs to inform practice. As the facilitator of the intervention, it was important to identify and describe the major considerations of planning and implementing an intervention such as group skills training. These factors were working with potential participant challenges, instructional strategies, leadership skills, group principles, processes and stages, and facilitator attributes, skills, and training. Careful consideration of these factors well in advance of implementation ensured a positive experience for the participants.

Overall, there were few challenges. This was due in part to anticipating challenges and forward planning to minimize them, which speaks to the skill of the researcher and the support of the school team. Also, the program was delivered while I was completing my professional practicum in the school, which afforded me some flexibility that a counsellor in the school may not have due to responsibilities that might interrupt the smooth delivery of the program. Having said that, it's still important to recognize the efficiency of group psychoeducation regarding time and financial resources. Future implementations of a program such as Mind Matters would benefit from being delivered earlier in the school year to allow more flexibility in session scheduling, individualized targeting of skills taught, and more time to learn and practice the

skills. Both students and teachers suggested a November start date. Furthermore, the Mind Matters program was reduced from the standardized 26-week program to a 12-week program to accommodate the limited time available to deliver the program before year-end. Further recommendations were that the program delivery period be increased from 12 weeks to 20 weeks to allow more time to learn, practice and internalize the skills. I must also emphasize the fact that the financial cost was minimal and few school resources were needed to implement the program.

Dropout prevention researchers agree that there is no definitive means to determine program effectiveness (Abrami et al., 2012; Freeman & Simonsen, 2015; Wilson & Tanner-Smith, 2013). New research can only use previous researchers' recommendations to guide and inform others about "what works best". Because DBT-A group skills training as a stand-alone treatment for at risk students in a Saskatchewan school setting has not been studied previously, there is no comparable study available.

However, the Mind Matters program can be considered effective because first, it meets the criteria outlined by Weare and Nind (2009): (1) It has a sound theoretical base, direct, intense, and explicit focus on desired outcomes, explicit guidelines (possibly manualized), and complete and accurate implementation adherence; (2) It identifies at-risk students; (3) It is a targeted evidence-based intervention that is appropriate for the age and developmental stage; (4) It uses multi-component approaches to teach skills and develop competence; and (5) It was delivered by a well-qualified professional and supported by peers, teachers and the school. Second, the program was delivered using well-researched principles of group work with adolescents (Delucia-Waack, 2006; Malekoff, 2014) and guided by significant resiliency, DBT, trauma, and school dropout research. Third, both quantitative and qualitative results suggest that the overall DBT-A program objectives were met. Finally—and most importantly—Mind Matters provided opportunities for students to form new social relationships—a key characteristic of effective intervention programs (Abrami et al., 2012).

Research question 2: What personal, interpersonal, and contextual risk and protective factors impacted students' emotional and behavioral functioning at school?

The major themes highlighted many risk and protective factors that impact a student's emotional and behavioral functioning at school. On a personal level, a confused self-concept and inability to recognize one's own strengths and resources were challenges many students

experienced. Poor self-image, lack of opportunities outside school, and isolation from others impacted students' ability to increase their personal resources.

On an interpersonal level, students experienced significant social challenges and there was a clear need to connect with others, despite students' personal challenges. The need to connect with others influenced students' connection to learning, influenced their relationships with teachers, and framed their expectations, which mediated their motivation to avoid or approach a new or challenging situation. All seven students also experienced significant emotional challenges that impacted their ability to function at school, and lacked adaptive problem-solving and emotional regulation strategies to manage these challenges effectively. Because students were focussed on trying to resolve their emotional challenges using ineffective strategies, they were unable to dedicate much energy to school tasks.

On a contextual level, these students had few opportunities to alleviate stress. Without resources to alleviate distress, many students became overwhelmed and this further impacted their ability to manage their school responsibilities. Furthermore, not having a strong connection to teachers was perceived as a factor that made school feel unsafe for the students—not having support from a caring adult. This process likely interfered with students' motivation to engage in school because over time their perceptions of school as an environment that they could not cope in effectively were likely reinforced by repeated experiences of school failure and negative social interactions due to their maladaptive coping (Wentzel et al., 2010).

Lessard and his colleagues (2014) asserted that currently, 40% of students are at risk of dropping out. Over the last decade, 25% of students have dropped out and this rate has remained relatively stable in that time. Their research found that resilient students have four abilities that make the difference between staying in school and dropping out: Using their own resources; asking for help when needed; establishing and maintaining positive relationships with teachers and peers; and planning, making decisions, and following through on decisions. Furthermore, resilient students had social lifelines—people they could count on when they experienced difficulties.

Research question 3: What impact did the skills training intervention have on students' emotional regulation capacities and overall resiliency?

The resiliency profiles demonstrated notable changes in several composite and index scales across the BASC-3 and RSC-A. While improvements may not have been statistically significant from a measurement perspective, the emotional and behavioral changes observed by

students, teachers, and myself were more anecdotal forms of evidence suggesting that improvements had occurred. Considering that a student's dysregulation is the product of years of personal-contextual interactions, expecting significant improvements in only 12 weeks is optimistic if not unrealistic. Nonetheless, the strategies, skills, and personal attributes utilized in the Mind Matters program resulted in several observable and notable outcomes: (1) students felt validated, which fostered their self-esteem, (2) students' fear of being negatively judged was dramatically reduced, which increased their sense of safety in the group and allowed them to interact and engage more intently, (3) students' social competence increased, which increased their sense of confidence, (4) finding out that other students shared similar experiences created perspective, hope, universality, and cohesiveness among members (Delucia-Waack, 2006), and (5) trust was developed, from which friendships were formed. Overall, members experienced a strong sense of connection to the group, which served to empower them to achieve their goals.

The resiliency profiles and overall themes identified several risk and protective factors that were impacted over the 12-week program. These findings illuminate the need for educational practitioners to implement a model of support and intervention that identifies at-risk students' personal, interpersonal, and contextual risk and protective factors and then provide opportunities to develop those resources while mitigating the risk factors. The current study has demonstrated that group skills training can be provided to achieve this.

The study asserts three points: (1) Psychological well-being is a key factor influencing school outcomes; (2) School motivation, engagement, and achievement are influenced by emotional and social factors: emotional regulation and relationships; and (3) The emotional and social health of at-risk students can be positively improved through peer group skills training. Effective identification and targeted intervention can provide a comprehensive understanding of the behavioral and emotional needs of at-risk students and inform individualized program planning. Creating a resiliency profile for an at-risk student can be a very informative tool for students, teachers, counsellors, and parents to monitor and assess the student's psychological growth and development on an ongoing basis just as a report card does for academics--a resiliency report card. They can allow teachers to monitor and evaluate whether emotional, social, and contextual needs are being addressed, and to monitor how these factors are impacting motivation, engagement, and achievement. It's important for educators to provide targeted opportunities for at-risk students to create new social relationships with teachers and peers because emotional regulation is naturally developed through interaction with others.

If educators use the tools they already have at their disposal, a holistic pedagogy that develops resiliency in at-risk students can be effective.

Study Limitations and Delimitations

The current study was the first Saskatchewan research project that examined a high school-based DBT-A group skills training program to address resiliency in at-risk students with the broad goal of improving school achievement and eventually increasing graduation rates in this population. Given the novelty of such a study, there were some limitations. The most significant was the time available to complete the intervention before the end of the school year. This not only prevented analyzing the pre-intervention data to better inform the specific skills included in the program, but it also prevented completing follow-up measures which would have provided valuable data regarding skill maintenance. The original proposal included a three-month follow-up that was ultimately excluded due to time limitations. Additionally, post-intervention measures and individual interviews were completed during final exams, which may have impacted students' and teachers' stress levels and subsequently influenced the results in a negative manner. Finally, due to final exam stress, four students were unwilling to be interviewed; however, I followed up with them two months later in the second week of September. I expected that perceptions, attitudes, and recollections of program participation would possibly be impacted by the time delay; however, I found interviewees to be more relaxed and focussed on the interview questions, as well as more articulate compared to those interviewed during final exams. Since this may have had an influence on responses, it suggests serious consideration of the timing of data collection. The same could be said for the teachers associated with this study.

Another limitation was a lack of teachers' concrete observational data. Teachers were given observational tracking sheets (Appendix D) and behavioral rubrics (Appendix E) to complete each week. The intent was to consistently track school-interfering, as well as prosocial behaviors to accurately monitor and evaluate whether these increased, decreased, or remained the same during and after the program. Teachers were also sent regular reminder emails to complete these. Unfortunately, behaviors were not tracked consistently, and some teachers didn't do any tracking. When interviewed, teachers reported that they simply didn't have time to complete the tracking sheets at the end of the day, they forgot, no noteworthy behaviors were observed, or they were unable to stop in the middle of teaching to make note of a particular behavior, but tried to remember to note it after class, which seldom occurred either.

Furthermore, this issue highlights the need to consider teachers' workload demands when implementing any school-based treatment program because teachers are a valuable part of the intervention team. Due to the time of year the program was delivered, teachers were preparing for final exams making it more challenging to complete observation forms for Mind Matters in addition to what was already a daunting workload. When asked about a more effective way to collect observational data, teachers suggested that completing tracking sheets less frequently over a longer time period would be less stressful and easier to maintain consistency:

> I tried to do it every week and how they did every week and that was just stupid on my part. If it's the end of the month kind of review—do this rubric on the student, let me know so I can compare this month's rubric to last month's rubric—do you know what I mean? Something simple like that.

Other suggestions included direct communication between the counsellor and the teacher utilizing email or text communication to share observational data. It was important for teachers to share what they were seeing in the classroom and collaborate with me despite the challenges that completing tracking forms presented. We all acknowledged that despite the value of rigorous data collection, this may not be realistic in real-world settings.

Also, while the findings showed that the group skills training program led to changes in students' resiliency, there is the possibility that other factors may have lead to these changes. Because there was not a control group in this study, it is difficult to say with absolute certainty that no other factors were influencing the change in scores. Future research would benefit from including a control group of at-risk students who do not participate in the intervention to uncover any additional factors that may impact changes in emotional and behavioral functioning for these students.

Although this study only explored at-risk students in one urban Saskatchewan high school, the results may still be generalizable to other schools since this high school setting reflects economic and cultural characteristics that may be considered unique to this province. The findings of my study may also have applications to counselling programs in other provinces because emotional and social skills-building may be valuable to other at-risk student populations. Similarly, as I was only interested in addressing interventions that support the developmental aspects of high school adolescents, elementary and middle school students were not discussed, nor were such teachers and counselors asked to participate in this study.

There were several delimitations of the proposed study as well. Review of the Ministry of Education's policy regarding learning outcomes is beyond the scope of this study; therefore, readers of this study are encouraged to refer to their website to familiarize themselves with it (http://www.curriculum.gov.sk.ca). Also, although this study was concerned with interventions that are provided in the school setting, research pertaining to therapeutic interventions in outpatient or clinical settings were included in the literature review because these studies provide support for primary and secondary-level interventions. Many of these tertiary therapeutic interventions have been modified for at-risk adolescents, but few have been modified for the school setting (Groves et al., 2012; Weare & Nind, 2011).

Implications for Future Interventions and Research

While students and teachers reported many strengths of the Mind Matters program, several suggestions were made that would increase the efficacy of future DBT-A group skills training programs in the high school setting. First, both students and teachers agreed that offering the program over 20 weeks would be more realistic. This would allow the same number of skills to be learned, practiced, reflected upon, and internalized. Teachers would have more time to observe behaviors without increasing workload demands. Additionally, delivering the program from November to March would allow students to be identified early in the school year, allow skills to be engaged in it during a less stressful part of the school year (avoiding final exams), and provide an opportunity for students to complete the program with plenty of time to return to normal routines and schedules.

There were lengthy discussions regarding session scheduling. In the current study, sessions were rotated through the academic schedule to minimize missed instructional time. Different options were considered for when sessions should take place such as before and after school and only on lunch breaks to avoid missing class altogether. Ultimately, the consensus was that the current scheduling was still feasible so long as it was over a 20-week period. Two-hour sessions could be offered alternately with one-hour lunch sessions each week. The two-hour sessions would be for new learning and the alternating one-hour sessions could be check-ins and review. Although students would miss two hours of instructional time every two weeks, conceivably the benefits would still outweigh the missed class time. Students also emphasized the need to balance missed instructional time with missed socializing opportunities at lunch.

Another key suggestion from the students was to include more experiential activities than what the current study provided. All seven students emphasized the importance of experiential

learning, not only regarding their motivation to learn the skills themselves, but also regarding their need for *social learning* that takes place in a group setting (Delucia-Waack, 2007; Malekoff, 2014), which too often is not part of regular classroom learning. Furthermore, the students reported that skills taught using experiential activities were those that were more internalized and subsequently recalled when experiencing a distressing situation. I also consistently observed students more actively engaging in learning during experiential activities than when using the manual's discussion-based learning. Experiential activities not only provide opportunities to apply the skills students are learning in a safe social environment, but they also allow students to experience social success, which develops their social competence, self-efficacy, and self-esteem.

One strategy that would strengthen the overall program delivery would be to add regular team consultations led by the counsellor and including students' teachers (Swales, 2010). These could be scheduled weekly or bi-weekly to ensure consistent collaboration, problem-solving, and generalization of the DBT skills and principles to the classrooms, and would effectively model the team's commitment to the program for the students. Furthermore, regular opportunities to collaboratively problem-solve, discuss issues, and share perspectives facilitates adherence to the program. These meetings would also address the issue of accurate and consistent observations of behaviors that impacted the current study.

Another strategy to improve program efficacy is to include regular consultations with students' parents. Ongoing collaboration with parents before, during and after the program would be an effective way to explore, monitor, and evaluate how family relationships are impacted by developing students' skills regarding generalization from the group and school setting to their homes. Parents, like teachers, would be more able to support their children, which speaks to the importance of using an ecological approach to intervention that underscores DBT-A (Rathus & Miller, 2015).

Providing pre-intervention resiliency profiles to teachers before implementing the program would allow teachers to become aware of students' resources and vulnerabilities and this would allow them to tailor their instruction to address learning needs more effectively. Also, it would provide baseline information from which to monitor and evaluate students' growth over the intervention as well as monitor those factors that impact students' functioning. Finally, providing this information may elicit more engagement and interaction between teachers and their students and encourage greater commitment to the program.

Future interventions designed to support at-risk students would also benefit from having an explicit trauma focus. Although a broad discussion of trauma research was beyond the scope of the current study, trauma was an underlying factor in each of the student's lives. A trauma-informed DBT-A skills training group would not only bring awareness to students and teachers about the significant role trauma plays in emotional dysregulation, it would also emphasize the need for teachers and counsellors to replace judgmental, alienating labels with sensitivity and compassion for these students.

Finally, it is critical to include follow-up data to monitor students' skill maintenance and overall emotional functioning. Completing the BASC-3 and RSC-A two to three months after program completion would allow the intervention team to identify areas of continued risk and resources, inform ongoing support and program planning for the next school year, and identify areas where the skills training program could be modified. The key to program effectiveness is ongoing monitoring, evaluating, and modifying to consistently provide individualized support for at-risk students.

Summary

Supporting at-risk students in Saskatchewan high schools requires a holistic pedagogical approach that identifies students' risk factors and available resources, teaches skills to decrease emotional dysregulation and school interfering behaviors, while providing opportunities for students to make supportive social connections with peers and teachers. Developing social competence increases self-efficacy and self-esteem, both critical components of resiliency. At the very minimum, Mind Matters helped students develop a sense of school connectedness—a critical variable for student success (Wang & Fredricks, 2014). For at-risk students, learning essential *life skills*, such as mindfulness, distress tolerance, interpersonal effectiveness, and emotional regulation (Pederson, 2015) allows them to engage in all aspects of their lives: Home, community, and school. The current study demonstrated that an evidence-based program such as DBT-A group skills training can be effectively delivered in the high school setting to foster the development of at-risk students' resiliency, which supports their academic success.

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Appendix A

Table A-1: BASC-3 SRP and TRS Clinical Scale Definitions

Scale	**Definition**
Attitude to School	Feelings of alienation, hostility, and dissatisfaction regarding school
Attitude to Teachers	Feelings of resentment and dislike of teachers; beliefs that teachers are unfair, uncaring, or overly demanding
Sensation Seeking	The tendency to take risks and to seek excitement
Learning Problems	The presence of academic difficulties, particularly understanding or completing homework
Attention Problems	The tendency to report being easily distracted and unable to concentrate more than momentarily
Hyperactivity	The tendency to report being overly active, rushing through work or activities, and acting without thinking
Locus of Control	The belief that external events or people control rewards and punishments
Social Stress	Feelings of stress and tension in personal relationships; a feeling of being excluded from social activities
Anxiety	Feelings of nervousness, worry, and fear; the tendency to be overwhelmed by problems
Depression	Feelings of unhappiness, sadness, and dejection; a belief that nothing goes right
Somatization	The tendency to be overly sensitive to experience, or to complain about relatively minor physical problems and discomforts
Atypicality	The tendency toward bizarre thoughts or other thoughts and behaviors considered “odd”
Aggression	The tendency to act in a hostile manner (either verbal or physical) that is threatening to others
Conduct Problems	The tendency to engage in antisocial and rule-breaking behavior, including destroying property

Note. From Reynolds & Kamphaus (2015, p. 48 & 74).

Appendix A

Table A-2: BASC-3 SRP and TRS Adaptive Scale Definitions

Scale	**Definition**
Adaptability	The ability to adapt readily to changes in the environment
Self-Esteem	Feelings of self-worth, self-respect, and self-acceptance
Self-Reliance	Confidence in one's ability to solve problems; a belief in one's personal dependability and decisiveness
Social Skills	The skills necessary for interacting successfully with peers and adults in home, school, and community settings
Interpersonal Relationships	The perception of having good social relationships and friendships with peers
Relationship with Parents	A positive regard toward parents and a feeling being esteemed by them
Functional Communication	The ability to express ideas and communicate in a way others can easily understand
Leadership	The skills associated with accomplishing academic, social, or community goals, including the ability to work with others
Study Skills	The skills that are conducive to strong academic performance, including organizational skills and good study habits

Note. From Reynolds & Kamphaus (2015, p. 51 & 74).

Appendix A

Table A-3: BASC-3 SRP and TRS Content Scale Definitions

Scale	**Definition**
Ego Strength	The expression of a strong self-identity and overall emotional competence, including feelings of self-awareness, self-acceptance, and positive perception of one's social support network
Resiliency	The ability to access both internal and external support systems to alleviate stress and overcome adversity
Emotional Self-Control	The ability to regulate one's affect and emotions in response to environmental changes
Negative Emotionality	The tendency to react in an overly negative way to any changes in everyday activities or routines
Mania	The tendency toward extended periods of heightened arousal, excessive activity (at times obsessive in focus), and rapid idea generation in the absence of normal fatigue
Anger Control	The tendency to become irritated and/or angry quickly and impulsively, coupled with an inability to regulate affect and self-control
Bullying	The tendency to be intrusive, cruel, threatening, or forceful to get what is wanted through manipulation or coercion
Developmental Social Disorders	The tendency to display behaviors characterized by deficits in social skills, communication, interests, and activities; such behaviors may include self-stimulation, withdrawal, and inappropriate socialization
Executive Functioning	The ability to control behavior by planning, anticipating, inhibiting, or maintaining goal-directed activity, and by reacting appropriately to environmental feedback in a purposeful, meaningful way
Test Anxiety	The propensity for irrational worry over and fear of taking routine school tests of aptitude or academic skills, regardless of one's degree of study preparation or confidence in knowledge of the test content

Note. From Reynolds & Kamphaus (2015, p. 54 & 80).

Appendix B
Session Schedule

MIND MATTERS
SESSION SCHEDULE FROM MARCH 23 TO JUNE 15, 2016

Wednesday, March 23: **Period 2** and **Period 3**

Tuesday, April 5: **Period 3** and Noon Break

Tuesday, April 12 and Wednesday, April 13: Noon Break

Wednesday, April 20: Noon Break and **Period 4**

Tuesday, April 26 and Wednesday, April 27 Noon Break

Wednesday, May 4: **Period 4** and **Period 5**

Tuesday, May 10 and Wednesday, May 11: Noon Break

Wednesday, May 18: **Period 4** and **Period 5**

Tuesday, May 24 and Wednesday, May 25: Noon Break

Wednesday, June 1: **Period 1** and **Period 2**

Wednesday, June 8: **Period 2** and **Period 3**

Friday, June 10 **Field Trip**

Wednesday, June 15: **Period 1** and Noon Break

NOTE: This schedule attempts to minimize missed classes for students; however, we must maintain program attendance for research purposes. Should teachers require any changes due to exams, there is an option to hold group sessions on Fridays. Advance notice of schedule change requests is both necessary and greatly appreciated.

Appendix C
Group Norm Contract

MIND MATTERS

Guidelines for Skills Training Group

1. Information obtained during the session (including the names of other group members) MUST remain confidential.
2. Members must arrive at the session ON TIME.
3. Members are not to discuss any risk behaviors with other group members outside of the session. Members will not temp other members to engage in problem behaviors during the session.
4. Members will not discuss group content/activities with anyone outside the group, including other members of the group.
5. Members will act in a courteous and respectful manner toward other group members and group leaders. The group is meant to encourage positive social interactions and emphasizes positive feedback toward other members.
6. Each member is encouraged to seek an individual follow-up session with their school counselor to address any issues or concerns resulting from participation in the group.

I _____ understand the purpose, goals, guidelines, and activities involved in the Mind Matters group and agree to fully participate in the Mind Matters Skills Training Group and complete all activities/tasks to the best of my ability.

I will be respectful of other group members and group leaders.

I understand that an individual follow-up session with my school counselor is available to debrief and discuss my experience in the group, should the need arise.

I agree to keep all information regarding the group (member names, activities) confidential and will not share this information with any person outside of the group.

_____ _____

Member Signature Date

_____ _____

Skills Trainer Signature Date

Appendix D
Teacher Observation Tracking Form

MIND MATTERS
OBSERVATION AND TRACKING SHEET

NAME & DATE	BEHAVIORAL	EMOTIONAL	SOCIAL	ACADEMIC	OTHER

Appendix E
Learning Attribute Rubric

MIND MATTERS LEARNING ATTRIBUTES RUBRIC

CRITERIA	BEGINNING 1	APPROACHING 2	MEETING 3	CONSISTENTLY 4
EFFORT	Very little effort Poor & unfinished products	Inconsistent effort Partially or barely adequate completion of products	Good effort Generally completes products with ease	Makes a very good, consistent effort Completes products with thoroughness
CONTRIBUTION	Impedes the learning of others Questions/comments//efforts often distract from learning Group work often disrupted	Rarely asks questions or offers ideas or help in class Seldom contributes to group work	Offers support, ideas, and asks questions on occasion which help to clarify or solve problems Good group work skills	Offers support, ideas, and asks questions in class that help to clarify and extend discussion or solve problem Very good group work skills
ATTENTIVENESS	Almost never on task Very little focus Does not listen when others talk and interrupts when others speak	Often off-task Inconsistent focus Listens inconsistently when others talk	Regularly on task Generally focused Listens well when others talk and will on occasion have something to add Listens to remember	Consistently on task Very focused Listens when others talk and will offer additional input Listens for understanding and relevance
ATTITUDE	Often disrespectful to peers and teacher Often makes inappropriate comments or questions only to challenge	Shows inconsistent respect for peers and teacher Occasionally makes inappropriate comments	Generally shows respect for peers and teacher Questions sometimes don't demonstrate respect intended	Consistently shows respect for peers and teacher On all occasions, questions ideas in respectful way
SELF-IMAGE AS A LEARNER	Student does not demonstrate that effort, competence, and perseverance will lead to success	Demonstrates minimally that effort, competence, and perseverance will lead to success	Student frequently demonstrates that effort, competence, and perseverance will lead to success	Student consistently demonstrates that effort, competence, and perseverance will lead to success
PROBLEM-SOLVING SKILLS	Student lacks problem-solving strategies and relies solely on teacher or peer intervention	Student relies heavily on teacher or peer intervention for problem-solving strategies	Student, peers, and teacher discuss and choose appropriate problem-solving strategies together	Student independently chooses appropriate problem-solving strategies

From Lewthwaite, Owen, Doiron, Renaud, & McMillan (2014).

Appendix F
Feedback Survey

MIND MATTERS

Using the following scale from 1 to 5, please rate the statements below:
1=strongly disagree 2=disagree 3=somewhat agree 4=agree 5=strongly agree

I think this group helped me with my emotions by:	1	2	3	4	5
1. Helping me feel better about myself.	1	2	3	4	5
2. Identifying and understanding my feelings and thoughts when I am upset.	1	2	3	4	5
3. Learning new skills that will help me deal with my friends, teachers, and family more appropriately.	1	2	3	4	5
My experience in the *Mindfulness* activities helped me better manage my focus and attention.	1	2	3	4	5
My experience in the *Distress Tolerance* activities helped me better understand my responses to highly stressful situations.	1	2	3	4	5
The skills taught in the *Emotional Regulation* activities helped me better manage my emotions	1	2	3	4	5
The skills taught in the *Interpersonal Effectiveness activities* were useful for improving my relationships.	1	2	3	4	5
The group discussions helped me understand the overall goals and purposes of the group.	1	2	3	4	5
The facilitator spoke clearly and was easy to understand.	1	2	3	4	5
The facilitator cared about my well-being in the group.	1	2	3	4	5
The facilitator made the activities meaningful for me.	1	2	3	4	5
The activities provided an opportunity for me to apply what I learned in the group discussions.	1	2	3	4	5
I would participate in future *Mind Matters* groups like this.	1	2	3	4	5
I would encourage my friends to participate in this group in the future.	1	2	3	4	5

Something I learned about myself in the group was (write on the back of page if needed):

Ideas I have for making the group better are (write on the back of page if needed):

Appendix G
Student/Parent Information Letter

Dear Student and Parent,

My name is Tammy Holtby and I am currently working on my Master's Degree in Educational Psychology at the University of Saskatchewan. I am currently a counselling practicum student at Bishop James Mahoney High School, and interested in studying the effectiveness of a high-school-based Dialectical Behavior Therapy Skills Training Program for students who experience multiple challenges in their daily lives that results in a number of anxiety symptoms, self-harm behaviors, and/or any emotional coping strategies that interfere with school achievement.

Participation in my research study will require that you, the student, currently attend Bishop James Mahoney High school. To participate in my study, you will be required to participate in a 12-week program that teaches skills to effectively manage anxiety, problem solve, and communicate. You will be asked to complete two surveys measuring various behavioral, emotional, and social components of resiliency. Your teachers will also be asked to complete a survey based on their observations of these components. Upon completion of the training program, you will be asked to participate in two individual interviews. During these two interviews, which will be about 90 minutes each, I will be asking you about your experiences during the program, and any challenges and highlights you've experienced. Next, I will provide you a narrative (overall story) that I will transcribe from the interviews. During a final review meeting, we will discuss your reaction to this transcript and decide whether anything needs to be added, removed, or changed.

Participation is completely voluntary and all information you offer will be kept confidential. You may choose not to answer any interview question(s) and may withdraw from the study at any time. If you are interested in participating in this study, or would like more information, please contact me at my home telephone number (306) 230-3535.

I will provide a full description of the study, its rationale, and methodology so that you may be fully informed of the details of the study before providing your consent to participate. I look forward to speaking with you.

Sincerely,

Tammy Holtby

Appendix H
Teacher Information Letter

Dear Teacher,

My name is Tammy Holtby and I am currently working on my Master's Degree in Educational Psychology at the University of Saskatchewan. I am currently a counselling practicum student at Bishop James Mahoney High School, and interested in studying the effectiveness of a high-school-based Dialectical Behavior Therapy Skills Training Program for students who experience multiple challenges in their daily lives that results in a number of anxiety symptoms, self-harm behaviors, and ineffective emotional coping strategies that interfere with school achievement.

Participation in my research study will require that you, the teacher, are certified and currently employed at Bishop James Mahoney High school. To participate in my study, you must work directly with one of the student participants in the study on a regular basis. You will be also be required to participate as a member of an inter-disciplinary team for the duration of a 12-week program for grade nine students that teaches skills to effectively manage anxiety, problem solve, and communicate. You will be asked to make student observations, collect behavioral data, communicate regularly with team members and program facilitator, and share information with team members on an ongoing basis.

Upon completion of the program, you will be asked to participate in a focus group interview. During this interview, which will be about 90 minutes long, I will be asking you about your experiences during the program, and any challenges and highlights you've experienced. Next, I will provide you a narrative (overall story) that I will transcribe from the interview. During a final review meeting, we will discuss your reaction to this transcript and decide whether anything needs to be added, removed, or changed.

Participation is completely voluntary and all information you offer will be kept confidential. You may choose not to answer any interview question(s) and may withdraw from the study at any time, being fully aware that discontinuing your participation will have an impact on the overall outcome of the study. If you are interested in participating in this study, or would like more information, please contact me at my home telephone number (306) 230-3535, or email me at trt864@mail.usask.ca.

I will provide a full description of the study, its rationale, and methodology so that you may be fully informed of the details of the study before providing your consent to participate. I look forward to speaking with you.

Sincerely,

Tammy Holtby

Appendix I
School Counselor Information Letter

Dear School Counselor,

My name is Tammy Holtby and I am currently working on my Master's Degree in Educational Psychology at the University of Saskatchewan. I am currently a counselling practicum student at Bishop James Mahoney High School, and interested in studying the effectiveness of a high-school-based Dialectical Behavior Therapy Skills Training Program for students who experience multiple challenges in their daily lives that results in a number of anxiety symptoms, self-harm behaviors, and ineffective emotional coping strategies that interfere with school achievement.

Participation in my research study will require that you, the counselor, are certified and currently employed at Bishop James Mahoney High school. To participate in my study, you must work directly with one of the student participants in the study on a regular basis. You will be also be required to participate as a member of an inter-disciplinary team for the duration of a 12-week program for grade nine students that teaches skills to effectively manage anxiety, problem solve, and communicate. You will be asked to collect behavioral data, communicate as needed with teachers, administrators, and researcher, and share program-related information with the researcher on an ongoing basis.

Upon completion of the program, you will be asked to participate in a focus group interview. During this interview, which will be about 90 minutes long, I will be asking you about your experiences during the program, and any challenges and highlights you've experienced. Next, I will provide you a narrative (overall story) that I will transcribe from the interview. During a final review meeting, we will discuss your reaction to this transcript and decide whether anything needs to be added, removed, or changed.

Participation is completely voluntary and all information you offer will be kept confidential. You may choose not to answer any interview question(s) and may withdraw from the study at any time, being fully aware that discontinuing your participation will have an impact on the overall outcome of the study. If you are interested in participating in this study, or would like more information, please contact me at (306) 230-3535, or email me at trt864@mail.usask.ca.

I will provide a full description of the study, its rationale, and methodology so that you may be fully informed of the details of the study before providing your consent to participate. I look forward to speaking with you.

Sincerely,

Tammy Holtby

Appendix J
Administrator Information Letter

Dear Administrator,

My name is Tammy Holtby and I am currently working on my Master's Degree in Educational Psychology at the University of Saskatchewan. I am currently a counselling practicum student at Bishop James Mahoney High School, and interested in studying the effectiveness of a high-school-based Dialectical Behavior Therapy Skills Training Program for students who experience multiple challenges in their daily lives that results in a number of anxiety symptoms, self-harm behaviors, and ineffective emotional coping strategies that interfere with school achievement.

Participation in my research study will require that you, the teacher, are certified and currently employed at Bishop James Mahoney High school. To participate in my study, you must work directly with one of the student participants in the study on a regular basis. You will be also be required to participate as a member of an inter-disciplinary team for the duration of a 12-week program for grade nine students that teaches skills to effectively manage anxiety, problem solve, and communicate. You will be asked to make student observations, collect behavioral data, communicate regularly with team members and researcher, and share information with team members on an ongoing basis.

Upon completion of the program, you will be asked to participate in a focus group interview. During this interview, which will be about 90 minutes long, I will be asking you about your experiences during the program, and any challenges and highlights you've experienced. Next, I will provide you a narrative (overall story) that I will transcribe from the interview. During a final review meeting, we will discuss your reaction to this transcript and decide whether anything needs to be added, removed, or changed.

Participation is completely voluntary and all information you offer will be kept confidential. You may choose not to answer any interview question(s) and may withdraw from the study at any time, being fully aware that discontinuing your participation will have an impact on the overall outcome of the study. If you are interested in participating in this study, or would like more information, please contact me at my home telephone number (306) 230-3535, or email me at trt864@mail.usask.ca.

I will provide a full description of the study, its rationale, and methodology so that you may be fully informed of the details of the study before providing your consent to participate. I look forward to speaking with you.

Sincerely,

Tammy Holtby

Appendix K
Consent Form

You are invited to participate in a study entitled, "Up the Creek Without any Pedagogy: Implementing a School-Based DBT Skills Program to Support At-Risk Students"

Please read this form carefully and feel free to ask questions you might have.

Principal Researcher: Tammy Holtby, M.Ed. Candidate
Department of Educational Psychology and Special Education
College of Education
University of Saskatchewan
Email: tammy.holtby@sasktel.net
Phone: (306) 230-3535

Research Supervisor: Tim Claypool Ph.D., R.D. Psych.
Department Head, Associate Professor
Department of Educational Psychology & Special Education
College of Education, Office: 3019
University of Saskatchewan
28 Campus Drive
Saskatoon, SK S7N 0X1
Phone: (306) 966-6931
tim.claypool@usask.ca

Purpose and Procedure:

The purpose of this study is to explore and describe a pilot Dialectical Behavior Therapy for Adolescents (DBT-A) program in one Saskatoon High School, implemented to reduce anxiety-related symptoms and improve distress tolerance, emotional self-regulation, and interpersonal skills for students at risk for school failure. Participants should expect a time commitment of approximately four months to complete the research project. (March 1, 2016 to June 30, 2016)

Research design: Once signed written consent is obtained, grade nine and ten students participating in the program will receive 12 weekly sessions of manual-guided DBT-A skills training. Participants for the project will be referred to the training program by teachers, counselors, and/or administrators based on risk of school failure as determined by meeting the criteria outlined in this study.

Tammy Holtby will collect behavioral, emotional, interpersonal, and learning achievement measures on each participant from participants and an interdisciplinary team of teachers, administrators, and counselors. Quantitative data will be collected at pre-program and post-program using the student-reported *Resiliency Scales* instrument, the *BASC-3* teacher-reported instrument, and the student-reported *BASC-3* instrument. Qualitative data will be collected throughout the program using researcher and team members' observations and field notes, as well as individual interviews.

Upon completion of the 12-week program, individual interviews will be arranged with Tammy Holtby and each student participant. One 60-minute, semi-structured interview will be conducted, followed by a final meeting to discuss the accuracy and completeness of the

information obtained from the first interview. An interview guide (see attached) will outline the main topics and help to obtain detailed information from the interview. There will be ample opportunity for open-ended discussion. All interviews will be video recorded and transcribed verbatim by Tammy Holtby for analysis purposes only. If at any time during the interviews a participant wishes to discontinue recording, he or she may do so.

Data collection and analysis will occur throughout the program allowing for emerging concepts to shape questions asked as the study proceeds. Reflective notes will be kept by Tammy Holtby to keep track of personal reactions, assumptions, hypotheses, and any changes to the research plan. This will assist with describing the research process in the final document, including the researcher's role, which in turn will help readers reach their own conclusions about the trustworthiness of the findings.

Participant-checks will be an important part of the process, with participants meeting with Tammy Holtby a third time to discuss analysis of the interviews and to provide further feedback and clarification. Follow-up interviews, telephone conversations, and/or correspondence may be employed throughout this process with the permission of the participants. Once participants are satisfied with the accuracy of the narratives' representations of experiences, participants will be asked to sign a data release form (see attached) before drafting of the final report proceeds.

Also upon completion of the program, interdisciplinary team members (teachers, counselors, administrators) will be asked to participate in a focus group interview. During this interview, which will be about 60 minutes long, team members will be asked about their experiences during the program, and any challenges and highlights experienced. The interview will be transcribed and a narrative will be provided to the team members. During a final review meeting, we will discuss reactions to this transcript and decide whether anything needs to be added, removed, or changed. This focus group interview will also be video recorded for the purposes of transcription accuracy and analysis. Recording may be discontinued at any time if a team member wishes to do so.

Potential Risks:

During the training program and the interviews, some experiences that come to mind may be of a sensitive nature. It is possible that recalling and speaking of such experiences could result in discomfort, stress, and/or anxiety. At all times, participants are free to decide what will or will not be disclosed, and may choose not to answer a question or share any personal experiences. Furthermore, a list of community resources (e.g., counselling services) is provided with your copy of this letter should you feel the need to further pursue any personal reactions. Additionally, school counselors will be available for individual counseling, debriefing, and feedback.

Tammy Holtby may have a relationship with some of the participants (i.e. counselor/student) as and therefore, these students will be referred to another school counselor (Lorraine Engel) for the duration of the research project. This is intended to prevent this relationship from influencing the decision to participate and to avoid any dual relationships or conflicts of interest that may interfere with the research project.

Potential Benefits:

Your involvement in this study may provide you with the opportunity for personal growth, increased resiliency, and for the development of more adaptive interpersonal skills that may benefit you in future school and social contexts. By participating in the project, you will

assist the researcher in making a contribution to the professional literature in the field of school counselling and effectively supporting students who are at risk of school failure.

Storage of Data:

At the end of the study, all data that contains identifying information, including consent forms, audiotapes and transcripts, will be securely stored at the University of Saskatchewan for a minimum of five years by Dr. Tim Claypool, the faculty member supervising this project.

Confidentiality:

The data from this study will be published in the form of a Master of Education thesis. It is also possible that portions may be used in subsequent academic publications or conference presentations. Your identity will be kept confidential. Although direct quotations from the interviews may be reported, you will be given a pseudonym and all identifying information (such as the name of your school) will be removed from the report. Tammy Holtby will transcribe the data for purposes of accuracy and to maintain confidentiality. Because the participants for this study have been selected from a small group of people, it is possible that you may be identifiable to other people on the basis of what you have said. Prior to the data being included in the final report, you will be given the opportunity to review the narrative constructed from your interviews and to add, alter, or delete information as you see fit. All identifying information will be stored separately from any data collected (i.e. consent letters).

The researcher will undertake to safeguard the confidentiality of all discussions during the training sessions and interviews, but cannot guarantee that other members of the group will do so. Please respect the confidentiality of the other members of the group by not disclosing the contents of any discussions outside the group, and be aware that others may not respect your confidentiality.

Right to Withdraw:

You may withdraw from the study for any reason, at any time. If you withdraw from the study at any time, any data that you have contributed will be destroyed at your request.

Questions:

If you have any questions concerning the study, please feel free to ask at any point; you are also free to contact the researcher or supervisors at the numbers provided above if you have questions at a later time. This study has been approved on ethical grounds by the University of Saskatchewan Behavioural Sciences Research Ethics Board on (date), as well as by the Greater Saskatoon Catholic School Board. Any questions regarding your rights as a participant may be addressed to the University Ethics committee through the Office of Research Services toll free at 1-888-966-2975, or ethics.office@usask.ca . Each participant will be provided with a summary of the thesis when completed.

Consent to Participate:

There are several options for you to consider if you decide to take part in this research. You can choose all, some, or none of them. Please put a checkmark on the corresponding line(s) that grants me your permission to:

I grant permission to be videotaped for transcription and analysis purposes: Yes_____ No_____

I grant permission to be audiotaped for transcription and analysis purposes: Yes_____ No_____

I grant permission to have my name used: Yes_____ No_____

I wish to remain anonymous: Yes_____ No_____

I wish to remain anonymous but prefer a pseudonym: Yes_____ No_____

The pseudonym I choose for myself is:_____

I grant permission to quote me and use my name: Yes_____ No_____

I have read and understood the description provided above. I have been provided with an opportunity to ask questions and my questions have been answered satisfactorily. I consent to participate in the study described above, understanding that I may withdraw this consent at any time. A copy of this consent form has been given to me for my records.

_____ _____

(Signature of Participant) (Date)

_____ _____

(Signature of Researcher) (Date)

Appendix L

LETTER OF ASSENT

RESEARACH PROJECT TITLE: Implementing a School-Based DBT Skills Training Program for At-Risk Students

RESEARCHER: Tammy Holtby, Graduate Student, University of Saskatchewan

I am doing a research study about school-based interventions for students who struggle with difficult emotions and behaviors. A research study is a way to learn more about people. If you decide that you want to be part of this study, you will be asked to participate in 12 weekly sessions of a group skills-training program that will start March 1, 2016 and end June 30, 2016. You will also be asked to complete two surveys about your emotional well-being and resiliency before the program starts and after it is completed. Finally, you will be asked to participate in an individual interview with the researcher to discuss your experience in the program.

There are some things about this study you should know. These are: (1) the program may take longer than 12 weeks to complete due to school holidays; (2) you may experience some minor stress and anxiety during the sessions; however, measures will be taken to minimize these including counselling; (3), the sessions and interviews may be video recorded for the purpose of accuracy of analysis, and recordings will only be viewed by the researcher; (4) this project is intended to provide you with several benefits in terms of increased school success, but benefits are not guaranteed; (5) you may withdraw from the project at any time if you wish without any consequence and any information relating to you will be destroyed immediately; and (6) your safety, privacy, and confidentiality are a top priority of the researcher and every possible measure will be taken to protect and preserve these throughout the duration of the project.

If you agree to participate, I will provide further details about the project and methods as part of a comprehensive informed consent discussion, which will describe and explain your rights and responsibilities as a participant in the project, as well as discussing any questions you may have about me, my responsibilities to you, or the project itself.

When we are finished with this study we will write a report about what was learned, and I will provide you will a copy of the final project report for you to keep. This report will not include your name or that you were in the study.

You do not have to be in this study if you do not want to be. If you decide to stop after we begin, that is okay too. Your parents know about the study too, and they will be asked to sign a consent letter agreeing to your participation in the project as well.

If you decide you want to be in this study, please PRINT and SIGN your name below:

I, _____, want to be in this research study.

_____

(Sign your name here) (Date)

Appendix M
Individual Interview Questions

- Tell me about yourself:
  - Describe who you are as a person (family, friends, likes, dislikes, achievements, challenges).
  - What do you feel is your greatest quality?
  - If you could change one thing about yourself, what would it be?
  - What is it like being a student in high school?
  - What is your sense of what a counselor is/does?

- Details of experience in the DBT-A Skills Training Program:
  - Could you tell me about your experiences in the program?
  - What did a typical session look like?
  - What, if any, emotional issues do you deal with?
  - What beliefs do you have regarding the importance of school achievement?
  - What beliefs do you have regarding teaching? Counselling?
  - What assumptions did you have about the program BEFORE you started it?
  - How do you think your peers responded to you before participating in the program? Teachers? Parents? Others?
  - How do you think your peers respond to you NOW after participating in the program?
  - What part of the program do you believe was the most helpful to you?
  - What part of the program do you believe was the least helpful to you?
  - What were the positive aspects of the program?
  - What are the negative aspects of program?

- Stories of development:
  - Looking back on your experience in the program, how would you say you've changed since participating in the program? What events had the most significant impact on your ability to manage your emotions, problem solve, and communicate with others?
  - What specific skills do you believe helped you effectively deal with your anxiety?
  - What specific skills/experiences were desired, but not taught/provided?

- Has anything changed in your perceptions of yourself since you started the program?
  - Was there a significant experience that caused that change?
  - Why do you think the experience changed your perceptions?
  - How was your perception changed?
  - Is there or was there a downside to having had this experience?
  - How have your self-perceptions changed before and after the program?
  - How have your learning and overall school experiences changed as a result of your participation in the program?

Thank you for your feedback!

Appendix N
Teacher Focus Group Questions

1. General Observations and thoughts:
    - What are your general thoughts about the group skills training intervention?
    - What do think went well?
    - What do you think needed improvements?

2. Logistics of implementing the intervention:
    - What did you observe regarding students missing core class instruction to attend the skills training group?
    - How do you think students responded to missing core instructional time to attend the skills training group? Were they able to complete their assignments and homework on time?
    - Were you able to consistently observe and record your observations of the students? If not, what were the barriers?

3. Individual Student Observations:
    - How were they doing academically before and after the intervention?
    - How were they doing socially before and after the intervention?
    - Do you think the intervention benefited them?
    - Did the benefits outweigh the cost of missed classes?

4. Areas for program improvement:
    - Scheduling and length of sessions
    - Timing of program implementation
    - Monitoring for changes in behaviors
    - Consultation and communication between teachers and facilitator

Appendix O
Data Release Form

Title of the Study: Up the Creek Without any Pedagogy: Implementing a School-Based DBT Skills Training Program to Support At-Risk Students

Researcher: Tammy R. Holtby, M.Ed. candidate, University of Saskatchewan
Supervisor: Dr. Tim Claypool, University of Saskatchewan

I now give permission to Tammy Holtby to publicly release my narrative information, as it has been negotiated over the course of this thesis research project. I am aware of the possibility of being identified from what I have said, given the small group of participants, and I have made any desired changes to potentially identifying statements.

I understand that I am still free to withdraw my information, wholly or in part, from this study prior to signing this consent, without penalty of any kind.

As participant, I have read this final consent for release of information and I am satisfied that I am sufficiently aware of the above issues. I consent to the release of my information.

_____ _____
Date Participant Name (Please print)

_____
Participant Signature

_____ _____
Date Witness Name (Please print)

_____
Witness Signature

Appendix P
Application for Research Proposal Approval

1. Supervisor:
   Dr. Tim Claypool, Department Head, Department of Educational Psychology and Special Education, University of Saskatchewan

2. Principal Researcher:
   Tammy R. Holtby, Master of Education Candidate, Department of Educational Psychology and Special Education, University of Saskatchewan

   Anticipated start date of research study: March 1, 2016
   Expected completion date of study: August 31, 2016

3. Title of the Study: Up the Creek Without any Pedagogy: Implementing a School-Based DBT Skills Program to Support At-Risk Students

4. Abstract
   Purpose: The purpose of this study is to explore and describe a pilot Dialectical Behavior Therapy for Adolescents (DBT-A) program in high school in Saskatoon, Saskatchewan, implemented to reduce anxiety-related symptoms and improve distress tolerance, emotional self-regulation, and interpersonal skills for students who are at risk of school failure.
   Research design: Using a mixed-methods design, grade nine and ten students participating in a school-based DBT-A skills training program will receive 12 weeks of manual-guided skills training. An interdisciplinary team will collect adolescent-specific behavioral, emotional, interpersonal, and learning achievement measures on each participant at baseline and post-treatment.
   Results: This study will provide preliminary data on the efficacy of implementing a DBT-A skills program in a high school setting to support at-risk students, and findings will serve to inform future research on interventions for at-risk students that may be provided by school counselors in Saskatchewan high schools.

5. Funding: The study is not externally funded.

6. Participants:
   Purposeful sampling will be used to identify participants for this study. Between six and ten Grade nine students who currently attend a high school in Saskatoon, Saskatchewan, will participate in this study. Criteria for student participation includes those students who have been referred to school counselors for anxiety issues and ineffective problem-solving, interpersonal, and emotional regulation strategies that interfere with school success. Teachers, school counselors, and administrators who are currently employed at the high school in Saskatoon, Saskatchewan, and who work directly with each student participant as an interdisciplinary team member will be included. An information letter describing the study will be provided to all students and team members. Teachers who are interested in participating will be asked to contact me. It is foreseeable that I will have a professional acquaintance with all research participants; therefore, I may be in a perceived position of power relative to these individuals.

7. Consent:
   I will proceed with the study and specific components of the study only after obtaining informed consent. Participants will be informed of their rights by means of a Consent Form (see attached).

8. Methods/Procedures:
   A mixed-methods research design will be used to explore and describe a pilot Dialectical Behavior Therapy for Adolescents (DBT-A) program in one high school in Saskatoon, Saskatchewan, implemented to reduce anxiety-related symptoms and improve distress tolerance, emotional self-regulation, and interpersonal skills for students who are at risk of school failure due to maladaptive emotional regulation strategies.

   Research design: Using a mixed-methods research design, grade nine and ten students will participate in a 12-week school-based DBT-A skills training program designed to help develop effective emotional regulation strategies. I will collect both quantitative and qualitative adolescent-specific behavioral, emotional, interpersonal, and learning achievement measures on each participant at baseline and post-treatment using participant self-report measures, teacher-reported measures, observations, and field notes.

   Upon completion of the program, an individual interview will be arranged with participants who consent to be interviewed. I will be conducting one, 60-minute, semi-structured interview with each student participant, followed by a second meeting to discuss my analysis. An interview guide will assist me to cover the main topics and to obtain detailed information from the interview.

   Upon completion of all interviews, I will provide a narrative (overall story) that I will transcribe from the interviews. During a final review meeting with each participant, we will discuss reactions to this transcript and decide whether anything needs to be added, removed, or changed.

   Additionally, descriptive analysis will be performed on the quantitative data collected to compare pre-treatment and post-treatment measures.

   I will also remain open to unexpected directions brought about by participant responses. There will be ample opportunity for open-ended discussion. All interviews will be audio/video recorded and transcribed verbatim by me for analysis purposes. Data collection and analysis will occur simultaneously, allowing for emerging concepts to shape questions asked as the study proceeds. I will be keeping reflective notes to keep track of personal reactions, assumptions, hypotheses, and any changes to my research plan. This will assist me in describing the research process in my final document, including my role as a researcher, which in turn will help readers reach their own conclusions about the trustworthiness of my findings. Member-checks will be an important part of the process, with participants meeting with me a third time to discuss my analysis of the interviews. Once they are satisfied with the accuracy of the narratives' representations of experiences, participants will be asked to sign a data release form (see attached) before I proceed with drafting the final report. To provide further feedback and for purposes of clarification, follow-up interviews, telephone

conversations, and/or correspondence may be employed throughout the process with the permission of the participants.

9. Storage of Data:
   For the duration of the study, field notes, observation records, recordings and transcripts, and all artifacts and documents derived from the program sessions and interviews will be kept in a locked cabinet in my home. At the end of the study, all data that contains identifying information, including consent forms, audiotapes and transcripts, will be securely stored at the University of Saskatchewan for a minimum of five years by Dr. Tim Claypool, one of the faculty members supervising this project.

10. Dissemination of Results:
    The data from this study will be published in the form of a Master of Education thesis. It is also possible that portions may be used in subsequent academic publications or conference presentations.

11. Risk or Deception:
    This research project does not include any elements of deception. There is little, if any, anticipated risk associated with this research, particularly since the participants are ensured confidentiality and are freely consenting to participate. Parental consent will also be required for students to participate in the study.
    However, certain personal experiences may cause participants distress. At all times, participants are free to decide what they will or will not disclose, and may choose not to participate. A list of counselling resources will be supplied along with the participants' copy of the consent form, should participants feel the need to seek third-party counselling.

12. Confidentiality:
    Participants' identities will be kept confidential. Although I will report direct quotations from the interviews, pseudonyms will replace names and all identifying information (such as the name of their schools) will be removed from the report.

    Because the participants for this study have been selected from a small group of people (students, counselors, and teachers in Saskatoon), it is possible that they may be identifiable to other people on the basis of what they have said. Prior to the data being included in the final report, participants will be given the opportunity to review the narrative constructed from their interviews and to alter or delete potentially identifying information as they see fit.

13. Data Release:
    Participants will be given the opportunity to review a draft of the narrative constructed from their interviews. They will be reminded of their right to withdraw any or all of their responses. Once participants are satisfied with the narrative, they will be asked to sign a data release form (see attached).

14. Debriefing and Feedback:
    Debriefing and feedback will occur as part of the research process as I involve participants in the process of discussion, analysis, and reflection. Because of the collaborative nature of the

research program, communication with the researcher will be ongoing. Each participant will receive a summary of the thesis once it is completed.

15. Required Signatures:

_____

Tammy Holtby: Master of Education candidate, Department of Educational Psychology and Special Education, University of Saskatchewan

_____

Dr. Tim Claypool: Supervisor, Department of Educational Psychology and Special Education, University of Saskatchewan

_____

David Mykota Ph.D., Committee Member, Department of Educational Psychology and Special Education University of Saskatchewan

16. Contact Information:

Researcher:

Tammy Holtby
Box 549, 220 Westview Place
Allan, SK S0K 0C0
(306) 230-3535
tammy.holtby@sasktel.net

Research Supervisor:

Tim Claypool Ph.D., R.D. Psych.
Department Head, Associate Professor
Department of Educational Psychology & Special Education
College of Education, Office: 3019
University of Saskatchewan
28 Campus Drive
Saskatoon, SK S7N 0X1
Phone: (306) 966-6931;
tim.claypool@usask.ca

Committee Member:

David Mykota, Ph.D.
Associate Professor
Department of Educational Psychology and Special Education
College of Education
University of Saskatchewan
Saskatoon, SK. S7N 0X1
306 966-5258
david.mykota@usask.ca