Dimensions of Bullying: Examining Face-to-Face and Cyber-Bullying Among Adolescents with and without Emotional and Behavioural Disorders

by

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Abstract

Bullying, in its many different face-to-face and cyber manifestations, profoundly impacts involved youth, particularly those with special education needs. Schools have typically focused on policing the bullies, while teaching victims of bullying effective reactive responses. The objective of this study was to identify those students at greatest risk, the factors placing them at risk, and to understand the source of their consequently aggressive social behaviours and communication. Understanding root causes thereby enables schools to shift toward proactively preventing bullying behaviours. Evidence suggests that adolescents with Emotional and Behavioural Disorders (EBD) are overrepresented in the face-to-face bullying dynamic. Through a social-ecological lens, the current study compares bullying involvement among typically developing adolescents (n = 134) with EBD adolescents (n = 30), and considers how within-person characteristics of adolescents with EBD are influenced by and interact with bi-directional microsystem (i.e. family, friends, teachers, school) and macrosystem (i.e. social and educational patterns of programming) factors to increase or decrease face-to-face- and cyber-bullying involvement. As hypothesized, adolescents with EBD were significantly more involved in both face-to-face- and cyber-bullying and –victimization. Predictive factors were uniquely identified for on- and off-line bullying and victimization. The current findings demonstrate a need to approach bullying prevention proactively by aiming resources at the source of social aggression.

Keywords: Bullying, victimization, face-to-face bullying and victimization, traditional bullying and victimization, cyberbullying and cybervictimization, Special Education Needs, Emotional and Behavioural Disorders (EBD)

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Dedication

This thesis is the product of a village of supports, knowledge, and insights. I am sincerely grateful for each member of this village with whom greater understandings have been empowered, shared, and appreciated.

To my children, Maya and Torin, and to all those that I have taught and will teach: you are my inspiration. You are the heart driving my learning and your happiness is the determined force behind this quest. Maya and Torin, loving you beyond your wildest imaginings, and seeing the world through your eyes and with your hearts, makes me determined to go to the ends of the earth to ensure you have every opportunity for happiness. I am so grateful for your patience and love amid all of the sacrifices of time and snuggles. Being my little champions in this endeavor, you filled my heart as you recognized how important this was to me. Just being you fills my heart. I hope my research collectively supports you and those around you to seize joy with wild abandon.

To my school kids and participating youth with complex behaviours, you have taught me so much more than you know with your courage, insights, and support. You have grown my heart with your depth and sensitive souls, changing how I view the source of and supports for complex behaviours. Thank you for sharing your experiences, in hopes of helping others or in hopes that someone would reach out and help you.

To my family and friends, your support has raised me up. Craig, I am indebted to you for your unwavering love, your patience and your selfless sacrifices. Thank you for being my sounding board for this research and these kids about whom I am so passionate, and for finding the words when I could not. My friends outside of school, thank you for appreciating my purpose, for sticking with me and understanding even when I had little

time to give, for running with me for perspective, and for bringing me parades during the celebrations. To my closest collegial friends, you have given me so many supports and insights – inspiring my purpose, shedding light on behaviours, challenging my perspectives in the greatest ways, and being shining examples of what support should look like for all kids. Gratitude and respect goes out to my parents, who supportively listened with interest, and cared for our family with love when we needed a little extra.

Guidance from my supervisory committee empowered and enabled me to learn the greatest lessons of my academic career. Dr. Sarah Macoun, I am beyond grateful for your positive support and constructive feedback. Your brilliant knowledge, insights, and authentic understanding and empathy for all individuals and the system we are working to make greater has transformed my learning throughout this process. Dr. Todd Milford, your encouragement and collaboration, spending many extra hours of support teaching me to calculate and speak the language of Statistics, were integral in this endeavor. Dr. Gina Harrison, your expertise with complex individuals and thoughtful perspective gave my understandings a valuable lens through which to consider and redefine experiences, behaviours, and solutions. Dr. Chad Rose, I am grateful for your inspiration, and presence at my defense, but even moreso, for championing kids who need a champion as informed as you. Such a brilliant team gives me extraordinary hope for our children's future.

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Dimensions of Bullying: Examining face-to-face and cyberbullying involvement among adolescents with and without Emotional and Behavioral Disorders (EBD)

Chapter 1

Introduction

Bullying, in its many different manifestations, profoundly impacts involved youth, particularly those with special education needs (SEN; Lindsay & McPherson, 2012; Mishna, 2003; Olweus, 2001; Rauskauskas & Modell, 2011; Shaw & Cross, 2012; Veenstra, Lindenberg, Oldehinkel, De Winter, Verhulst, & Ormel, 2005). With the growing use of technology among adolescents, technologically-mediated forms of bullying behaviours, commonly known as cyberbullying, are an increasing concern. Preventing and intervening in bullying requires knowledge of both traditional face-to-face- and cyber-bullying.

Gaps in the Literature

An examination of the existing research literature specific to face-to-face- and cyber-bullying and -victimization, reveals inconsistencies in methodologies and gaps in research, which has limited our understanding of bullying involvement among youth. First, while there is general consensus regarding the definitions for traditional face-to-face bullying and victimization, definitions for cyberbullying and cybervictimization are inconsistent within and across disciplines, yielding incongruent findings. Without clearly defined constructs and measurement approaches, it is difficult to form a consensus regarding cyberbullying and cybervictimization rates, causes, and solutions.

Second, face-to-face bullying and victimization research has been largely restricted to typically developing youth, with fewer studies that explore these factors in

youth with SEN (Rose et al, 2012). This gap in the literature is even greater in the areas of cyberbullying and cybervictimization (Cappadocia, Craig, & Pepler, 2013; Kowlaski & Fedina, 2011).

Third, studies that do examine and compare bullying experiences and behaviours among typically developing youth and those with SEN, rarely consider the specific risk factors in youth with SEN that may influence levels of bullying involvement (Rose et al, 2012). Much of the research in this area that has been done has focused on specific SEN populations such as youth with Autism Spectrum Disorders (Kowalski et al, 2011; Schroeder, Cappadocia, Bebko, Pepler, & Weiss, 2014) and those with Learning Disabilities (Hong & Espelage, 2012; Mishna, 2003; Wells & Mitchell, 2013), but other SEN populations have been less well researched.

Fourth, sparse research exists examining bullying and victimization among youth with Emotional and Behavioural Disorders (EBD), a population of students recognized for their struggle with social awareness, social communication skills, and self-regulation. Among the limited researchers who have connected youth with EBD to involvement in the bullying dynamic (Didden, Scholte, Korzilius, De Moor, Vermeulen, O'Reilly, Lang, & Lancioni, 2009; Kowalski et al, 2011; Dooley, Shaw, & Cross, 2012), Rose et al (2012) appear to be the only ones whose investigations with this population identified them to be at higher risk of bullying and victimization involvement than their same-age peers without SEN or peers with other types of SEN. Rose et al's (2012) study was ground-breaking, but would benefit from replication and extension to Canadian youth.

Fifth, there is very little research that examines the interacting risk (predictive) and protective (preventative) factors that influence bullying dynamics. Of the studies that

do exist, research has examined connections with teachers (Farmer, McAuliffe Lines, & Hamm, 2011; Hong & Espelage, 2012; Junoven, 2007; Sabol & Pianta, 2012), family influence (Farmer et al, 2011; Hong et al, 2012; Juvonen, 2007; Sabol et al, 2012), peer impact (Farmer et al, 2011; Hartup, 1996; Hong et al, 2012), individual characteristics (Bronfenbrenner, 1977; Bronfenbrenner, 1994; Rose et al, 2012), policy and programming (Farmer et al, 2011; Hartup, 1996; Rose, 2011), and gender (Jones, Mitchell & Finkelhor, 2013; Narvarro, Serna, Martinez, & Ruiz-Oliva, 2013; Ybara & Mitchell, 2004) in relative isolation. Rarely do studies explore these factors together to examine their collective risk or protective significance. If we understand resilience as reflecting a balance of risk and protective factors (Bronfenbrenner, 1977; Bronfenbrenner, 1994; Rose, 2011; Rose et al, 2012; Ungar, 2011), we need more research that examines risk and protective factors collectively.

Finally, studies examining the impact of inclusive versus segregated programming on bullying dynamics among youth have been limited and inconsistent in their findings (Begeny & Martens, 2007; Hausstatter, 2014; Jull, 2008; MacArthur, 2013; Rose, 2011; Saylor & Leach, 2009; Wendelborg & Tossebro, 2011; Zablotsky, Bradshaw, Anderson, & Law, 2013). Across North America educational policy is trending toward inclusive programming and access to learning in the Least Restrictive Environment (BCMOE Special Education, 2006; US Department of Education, 2012). However, views of what constitutes inclusive versus segregated programming are incredibly varied across countries, provinces, school districts, schools, and teachers. Research findings are mixed, but inclusion has been promoted as supporting academic, behavioral, social, and functional development (MacFarlane & Woolfson, 2013; Rose, 2011; Wendelborg et al,

2011). Yet, because definitions of inclusion vary even within the same school, conclusions as to whether inclusion or segregation increases bullying risks for youth with SEN are inconsistent. Further, no known research has explored the impact of inclusive versus segregated programing on bullying involvement in youth with EBD. The current study strives to address the limitations noted above by contributing to the existing research literature.

Statement of the Problem

With respect to addressing bullying in schools, the focus has been on policing the bullies and teaching victims of bullying effective preventative responses, rather than supporting social programming aimed at preventing bullying behaviours. Schools enlist peer ambassadors during unstructured times to monitor peer interactions, publicize Pink Shirt Day or Anti-Bullying Day to raise awareness of bullying among students, and support various programs (i.e. WITS Program) focused on teaching students preventative responses to bullying behaviours. Schools' focus often appears to be based in supporting victims while administering consequences to students who demonstrate bullying behaviours, rather than determining the root cause of bullying behaviours and providing effective supports to reduce these behaviours. In order to genuinely protect, support, value, and empower all students in schools, we need to be proactive and start with an understanding of those root causes of bullying behaviours. This means identifying our students at greatest risk, what places them at risk, and developing an understanding of why they are exhibiting such behaviours. In doing this, schools can better predict risk and put into place effective prevention programs.

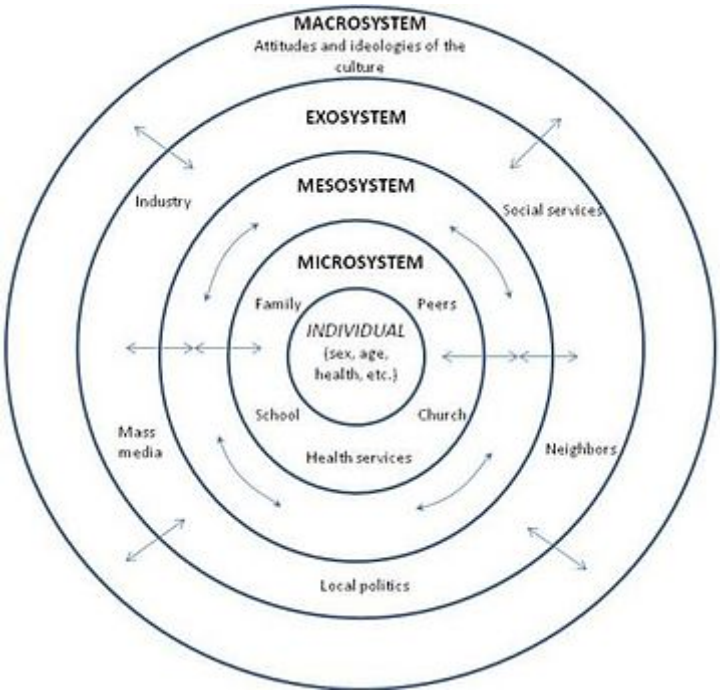
Purpose of the Study and Research Questions

The purpose of this study was to examine certain within-person and environmental factors that may be influencing on- and off-line bullying behaviours. First, this study was set out to determine whether students with EBD, identified by having an Intensive Behaviour Intervention/Severe Mental Illness (IBI) school designation (British Columbia Ministry of Education), are at greater risk of face-to-face and cyberbullying and cybervictimization compared with their same-age peers without SEN designations (here termed non-EBD youth). This study also sought to examine specific protective/risk factors identified in the literature as potentially influencing adolescents' risk for participation in the bullying dynamic. Finally, the study set out to determine the impact of these factors in relation to adolescents with EBD compared to non-EBD adolescents. With greater clarity around individual and system characteristics that may place youth at greater risk of bullying, and a better understanding of the risk/protective factors that influence the likelihood of involvement in bullying, educators will be better positioned to understand bullying and to provide more empathic and effective bullying behaviours prevention.

Social-Ecological Theoretical Framework

Investigating bullying involvement of youth with EBD through a social-ecological lens has the potential to highlight specific protective and risk factors that may influence the risk of bullying experiences. Bronfenbrenner's (1977, 1994) ecological systems theory contends that individuals develop through a systemic process and as a product of interrelated and interacting human and environmental relationships. At the core of this system is the developing individual, whose emerging characteristics are

dynamically influenced by their relationships within interacting systems – *microsystem* (i.e. family, peers, school, etc.), *mesosystem* (i.e. 'experiences between and within microsystems influencing interactions in another'), *exosystem* (i.e. formal and informal social structures not directly including but influencing the individual, including neighbourhood, media, transportation, social services and networks, etc.), *macrosystem* (i.e. overarching cultural and subcultural values and systems impacting economic, social and educational patterns that "determine how a child and his or her caretakers are treated and interact …in different settings."), and *chronosystem* (i.e. changes relative to time as it relates to and impacts the individual and their environment; Lerner, 1991; Hong et al, 2012).



Bronfenbrenner's ecological theory proposes that development is embedded within relationships, "including individual, family, classroom, and community attributes", which have "bi-directional, reciprocal, or 'dynamic interactional'" influences (p. 27; Sabol et al,

2012, p. 214). In other words, these systems and relationships influence both the development of the individual and the development of the system in a transactional manner (Lerner, 1991).

Applying a social-ecological approach to bullying involvement in youth with EBD demands that we consider the systems in which these youth exist and the social influences stemming from these systems. From the social-ecological approach, bullying is recognized as a social construct that most significantly affects those with compromised social competence (Rose et al, 2012). There is a transactional and dynamic relationship between individuals with EBD and the micro-, meso-, macro- and exo- systems in which they exist, which increases the risk of their involvement in bullying. While an in-depth exploration of interrelated systems is beyond the scope of this study, the study was informed by a social-ecological approach that considers how EBD characteristics interact with and are influenced by the microsystems (i.e. family, friends, teachers, school) and macrosystems (i.e. social and educational patterns of programming), to increase or decrease their risk of bullying involvement. Based on this theory, key relationships within this system were chosen to investigate as potential risk or protective factors, including microsystem factors of connectedness to teachers, connectedness to family, and connectedness to peers, as well as microsystem factors of inclusive versus segregated programming in school systems.

Summary

Multiple interacting factors influence different forms of bullying and victimization (Bronfenbrenner, 1977; Hong et al, 2012; Lerner, 1991; Mishna, 2003; Olweus, 2001). This literature review begins with a definition of traditional face-to-face

bullying, then examines challenges to operationalizing and measuring cyberbullying when compared with face-to-face bullying, and finally narrows to focus on the unique vulnerability and involvement of adolescents with EBD in bullying involvement. Through a systemic social-ecological lens, it will explore a number of protective/risk factors that may place individuals with EBD at heightened risk for involvement in traditional face-to-face and/or cyberbullying and cybervictimization. This includes individual characteristics associated with their EBD, microsystem factors such as social connectedness, and macrosystem influences such as educational programming delivery (inclusive versus segregated programming).

Chapter 2

Literature Review

In this chapter, I will examine the bullying literature as it defines and conceptualizes face-to-face- and cyber- bullying and -victimization for individuals with and without SEN. Specifically, this literature review will provide a global introduction to bullying definitions and bullying involvement among adolescents, with a focus on the variables involved in this study, including: 1) conceptualizing bullying as a construct on- and off-line; 2) definitions of bullying; 3) bullying prevalence among youth with and without SEN; 4) protective/risk factors for bullying drawn from social-ecological theory; and 5) exceptional risk factors for EBD youth. Finally, a justification for a focus on bullying involvement among adolescents with EBD will conclude this chapter, with the hypotheses that have guided this investigation.

Conceptualizing Bullying

Various manifestations of bullying in traditional face-to-face and technological contexts have been described, many of which are anchored in Olweus' analyses of the features of traditional bullying (2001). 'Traditional bullying', otherwise known as face-to-face bullying, may include physical (hitting, punching, kicking), verbal (yelling, swearing, name calling) and/or social or relational (exclusion, gossip, rumour-spreading) elements. With the advent of technology, traditional face-to-face bullying appears to have extended online. Cyberbullying is expressed in a virtual venue and is facilitated by new technological ways of interacting, where "technology [can be] used as a tool to bully…through email, instant messaging, in a chat room, on a web page," on social media, YouTube channels, online gaming, or through images or texts sent to cell phones

(Kowalski et al, 2011, p. 1202; Ybara et al, 2004, p. 320; Jones et al, 2013, p. 54). While cyberbullying is less well operationalized and understood than traditional face-to-face bullying, both forms of bullying share a characteristic perceived power imbalance where the "*intentional use of physical [or] psychological force or power, threatened or actual, against oneself, another person, or against a group or community either results in injury, death, or psychological harm, mal-development, or deprivation*" (Cappadocia et al, 2013; Espelage & Swearer, 2003, p. 368; Hong et al, 2012, p. 312; Olweus, 2001). The risk and protective factors, individual features, and consequences stemming from bullying have yet to be fully or unanimously understood and outlined as applied specifically to cyber (versus traditional face-to-face) bullying.

Face-to-Face Bullying and Victimization

Defining traditional face-to-face bullying and victimization. Traditional bullying, or face-to-face bullying as it will be referred to in this study, encompasses a variety of different behaviours, occurs within different contexts, and presents differently within different populations. Face-to-face bullying is universally understood as a recurring pattern of intentional physical or psychological harm directed by a more powerful individual or group (bully or bullies) against an individual (victim) less able to defend him or herself (Espelage et al, 2003; Olweus, 2001; Sticca & Perren, 2013). Three overarching criteria define face-to-face bullying: 1) an existing power differential between the bully and victim; 2) repeated aggression over time; and 3) intent of the bully to provoke harm against the victim (Sticca et al, 2013). Harm induced through face-to-face bullying, as described above, may be invoked physically (hitting, punching, kicking), verbally (yelling, swearing, name calling), and socially or relationally

(exclusion, gossip, rumour-spreading) (Beran, Rinaldi, Bickham, & Rich, 2012; Law, Shapka, Hymel, Olson, & Waterhouse, 2012). Bullying involvement rates from around the world (including both bullying and victimization) have ranged from 5% to 77% depending on the sample, methodology, bullying role, and rate of recurrent involvement (Beran et al, 2012; Cuervo et al, 2014; Jones et al, 2013; Navarro et al, 2013;). Face-to-face bullying, however, is recognized as being experienced chronically by approximately 10% of adolescents, intermittently by approximately 20-30 % of adolescents, and as involving twice as many individuals with SEN compared to those without (Beran et al, 2012; Espelage et al, 2003; Kowlaski et al, 2011; Mishna, 2003; Raskauskas et al, 2011; Rose, 2011; Scott et al, 2011; Shaw et al, 2012; Vaillancourt et al, 2013). The alarming proportion of adolescents involved in traditional face-to-face bullying, especially those with SEN, highlights the importance of informed research in this area.

Adolescent Internet Use

Virtually unlimited internet access and widespread use among adolescents has created a new online venue with the potential for many positive and negative interactions. Since adolescents have been identified as the age group most frequently accessing the internet and as most involved in cyberbullying, research into cyberbullying experiences within this group is particularly pertinent (Holtz & Appel, 2011; Jones et al, 2013; Katz et al, 2014; Werner et al, 2010). A number of studies, including that of Jones, Mitchell and Finkelhor (2013), suggest that the internet is accessed by almost all youth on any given day, and typically for more than two hours on any given day (Werner, Bumpus, & Rock, 2010; Wells & Mitchell, 2014; Holtz & Appel, 2011; Katz et al, 2014; Werner et al 2010). Adolescent activity online centers primarily around information-seeking,

entertainment through gaming or videos, and communicative social networking. There are potential benefits associated with on-line peer interactions. This includes social-emotional benefits such as having an ongoing and immediate social support network, expedient communications, facilitation and development of friendships, and a forum through which to develop stronger social-emotional skills (i.e., the promotion of self-control, self-regulation, respectful consideration of and responses to others' perspectives, or development of pro-social expressions outside of real-time, practical opportunities to strategically practice thoughtful and calculated decision-making, etc.) (Hinduja et al, 2008; Law et al, 2012). The internet also provides alternatives for entertainment, exposure to new ideas, opportunities for critical thinking not otherwise provided in the real world, and opportunities to affect real-world change (Hinduja & Patchin, 2008; Jones et al, 2013; Law et al, 2012; Modecki, Barber, & Vernon, 2013; Runions et al, 2012; Sticca et al, 2013). Holtz and Appel (2011) suggest that "trying our new identities during game play [or while social networking] may assist adolescents' development or, conversely, may detract from real-world challenges and opportunities," depending on the individual. The internet platform could 'level the social playing field' for some, providing a widened scope for expression, identity exploration, relationship-building, and enhancing a sense of belonging.

By virtue of increasing peer interactions online, these online venues also may increase the risk of negative social exchanges (Jones et al, 2013). Risks online include direct and indirect harassment, cyberbullying and victimization, and sexual exploitation. Precisely how online risks are mitigated appears to rely on the individual's approach and access to the internet, his or her online competencies and pre-existing social skills. Jones

et al (2013) and Ybarra and Mitchell (2004) demonstrated that those adolescents at greater risk for cyberbullying are those who spend more time online, are more involved in chat rooms and social networking sites, have weaker caregiver-child relationships, and more regularly use the Internet to communicate within their social and family networks (Jones et al, 2013; Ybarra et al, 2004; Runions et al, 2012). While most adolescents access the Internet with computers and cellphones, the amount of time spent and the content accessed appears to vary based on gender, socio-economics, geography, race, disability status, personal characteristics and familial relationship qualities (Beran et al, 2012; Cuervo et al, 2014; Jones et al, 2013; Katz et al, 2014; Holtz et al, 2011; Navarro et al, 2013; Ozguven et al, 2013; Smith, Skrbis, & Western, 2012; Wells et al, 2014; Ybarra & Mitchell, 2004).

Challenges to Operationalizing and Measuring Cyberbullying

There is a pressing need to better define and operationalize cyberbullying. Research into cyberbullying has been challenged by the use of multidisciplinary approaches, non-standard research methodologies, and diverse theoretical assumptions. Given that online social deviance, in general, has only been recognized within the last 15 years, during which time technology and person-technology interactions have rapidly advanced, researchers have struggled to keep up (Dehue, 2013; Livingstone et al, 2014). Research into cyberbullying investigations has been approached through the disciplines of psychology, sociology, education, media studies, and computer sciences, with significant variations in the theoretical approaches, methodologies and interpretations used. This has led to confusion and disagreement in the cyberbullying field, rather than consensus-building and collaboration (Dehue, 2013; Livingstone et al, 2014; Modecki et al, 2013).

Current research is also limited by the fact that many measurement tools used in these disciplines (i.e., surveys) are not peer-reviewed, cyberbullying is not well operationally defined, and factors associated with social information processing online are poorly understood (Runions, Dooley, Shapka & Modecki, 2013; Werner et al, 2010). The above noted challenges have led to significant difficulties accurately assessing cyberbullying features, prevalence and frequency (Werner et al, 2010). The field is further challenged by rapidly changing technologies, which leads to research results becoming obsolete very quickly (Livingstone et al, 2014).

Cyberbullying research is further complicated by its unique online venue, which leads to varied participants and the development of "techno-microsystems." (Livingstone et al, 2014). Like microsystems of families, peers, schools, or neighborhoods, a 'techno-microsystem' represents a series of interactions based in the online world. Techno-microsystems have proven difficult to authentically observe and to accurately interpret given that the online world involves rapidly evolving venues, unfamiliar modes of communication, and unique interpretations of social information processing (Livingstone et al, 2014; Runions et al, 2013). Within cyber- or techno-microsystems (i.e. social media environments with 'friends,' online gaming environments with 'teams,' etc.), it is very difficult to both systematically observe and reliably interpret social interactions (Hinduja et al, 2008; Runions et al, 2013).

Hinduja et al (2008) have described some of the hurdles to authentically interpreting social interactions online, including "intangible, and non-corporeal" nature of cyberbullying (p. 132). Cyberbullying research and our ability to draw conclusions from this research is compromised by difficulties gathering information on and accurately

measuring on-line interactions, including an over-reliance on self-report measures. Furthermore, the self-report and survey research methods that have typically been used to explore on-line interactions have been drawn from the research literature on traditional bullying and may not necessarily reflect aspects of communication and social information processing unique to online bullying (Bonanno et al, 2013; Cassidy et al, 2009; Law et al, 2012).

However, despite these measurement challenges, it is recognized that cyberbullying is reported less frequently than traditional face-to-face forms of bullying (Bonanno et al, 2013; Cassidy et al, 2009; Law et al, 2012). Parents' and teachers' lack of awareness regarding the risks of cyberbullying and adolescents' inconsistent disclosure means that cyberbullying often goes unnoticed and unreported (Kowalski et al, 2012; Veenstra et al, 2005). Victims of cyberbullying avoid reporting for "fear of having the technology with which they were targeted removed by their parents or other authority figures" (Kowalski et al, 2012, p. 1202). Another reason cited for low report rates in youth (i.e. only about ¼ of youth targeted have actually reported their cyberbullying experiences), is fear that adults will misinterpret what has happened or will be unable to offer an effective solution (Bonanno et al, 2013; Cassidy, 2009; Dooley, 2012; Hinduja, 2008; Sticca, 2013; Topcu, 2012). Jones et al (2013) found that, within the last few years, disclosure of 'distressing incidents' online appears to be increasing. However large discrepancies in reporting rates of cyberbullying exist between numerous studies (Beran et al, 2012; Cuervo et al, 2014; Jones et al, 2013; Navarro et al, 2013; Werner et al, 2010). Overall, statistics on the prevalence of cyberbullying are highly variable limiting the conclusions that can be drawn regarding risks and outcomes (Cassidy et al, 2009;

Dooley et al, 2012; Hinduja et al, 2012; Law et al, 2012; Sticca et al, 2013; Topcu et al, 2012).

Livingstone and Smith (2014) recommend that invested disciplines should collaborate and establish a unifying theoretical framework for investigating cyberbullying, including developing a standard methodology for investigation, consistent definitions, clear identification criteria, and standardized measurement tools (Law et al, 2012). Modecki et al (2013) and Dehue (2013) propose that measurement tools such as surveys that use behaviour-specific questioning should be utilized. According to these authors, enquiring about specific behaviours rather than using researchers' imposed 'perceptions' of cyberbullying will allow more objectivity and consensus in identifying behaviours of concern. Consensus surrounding the criteria that define cyberbullying and clear operational definitions are also necessary for research. This includes agreement upon what the core features of cyberbullying are, when and how it occurs, and whether it exists in isolation or as a spill-over from traditional face-to-face bullying (Hinduja et al, 2012; Olweus, 2012). Developing unifying theoretical frameworks, definitions of characteristics, sound methodologies, and better measurement tools will address some of these challenges, in addition to helping to inform how cyberbullying is similar to and different from traditional bullying.

Cyberbullying

Defining cyberbullying and victimization. Cyberbullying is defined by Olweus (2012) and Smith et al (2008) as "an aggressive, intentional act carried out by a group or individual, *using electronic forms of contact*, repeatedly and over time against a victim who cannot easily defend him or herself" (Smith, 2008, p. 376). Researchers' attempts to

define and understand cyberbullying over the past 15 years have been challenged by continually progressing electronic mediums and evolving interactions between users and online mediums. What is agreed upon is that cyberbulllying occurs via various technological channels and that perpetrators strike in a variety of ways. For the purposes of this study, cyberbullying will be operationally defined as only those online acts meeting the definitional criteria for traditional face-to-face bullying outlined by Olweus and Smith, including *repeated intention to hurt or humiliate online amid a distinct perceived power imbalance*. Cybervictimization will be defined as when an individual is *repeatedly and intentionally hurt or humiliated online, amid a distinct online power imbalance perceived by the victim, leaving the victim upset or afraid as a result* (Jones et al, 2013; Olweus, 2012; Smith, 2008).

Cyberbullying is one of a variety of terms used to describe various negative online exchanges. The range of terminology used to describe negative online interactions is vast and has included the following: 1) *repetitive and malicious acts* (i.e., cyberbullying, online bullying, electronic bullying, online harassment, etc.); 2) *isolated aggression* (i.e., cyber aggression, online harassment- at times synonymous with cyberbullying and at times describing isolated incidents, POP - **P**otentially **O**ffensive internet and mobile phone **P**ractices, cyber-violence, online aggression, denigration, exclusion, flaming –"intentional baiting or verbal attacks in a discussion or gaming forum,"); 3) *outing* (i.e., sharing or broadcasting personal information about another user - digital images, videos, conversations, opinions - without that user's consent, or against their wishes) (Law et al, 2012; Livingstone et al, 2013); 4) *exclusion* (i.e., intentionally including and excluding specific individuals in emails, social media posts, and texts,

etc.); 5) *assuming false identities to receive or send correspondence* (i.e., masquerade - assuming a false identity to communicate online, or creating a fictitious profile of a known individual used to send correspondence to others unknowingly on behalf of that individual); 6) *cyberstalking* (i.e., following an individual in chat rooms or social media, unwanted and unwarranted repeated email or text correspondence, etc.); and 7) *sexual harassment online* (i.e., sexting, outing, cyberstalking, assuming false identities, etc.) (Bonanno & Hymel, 2013; Jones et al, 2013; Law et al, 2012; Livingstone et al, 2014; Modecki et al, 2013; Runions et al, 2012; Runions et al, 2013; Smith, Mahdavi, Carvalho, Fisher, Russell, & Tippett, 2008; Ybarra et al, 2004; Wells et al, 2014). Similar to face-to-face bullying, not all aggressive acts online are examples of cyberbullying.

To conceptualize cyberbullying we must consider the complexities involved in online interactions. Although there is compelling evidence that cyberbullying may be an extension of traditional offline bullying (Bonnano et al, 2013; Beran et al, 2012; Cuervo et al, 2014; Cappadocia et al, 2013; Hinduja et al, 2012; Jones et al, 2011; Jones et al, 2013; Lindsay & McPherson, 2012; Wells & Mitchell, 2014; Olweus, 2012), this idea is controversial. While cyberbullying has been conceptualized as an extension of face-to-face bullying, it differs from traditional face-to-face bullying in four notable ways: 1) the potential for anonymity (Hinduja, 2008; Sticca, 2013; Werner et al, 2010); 2) the effects of an infinitely larger perceived or actual audience of participants or bystanders (Cuervo et al, 2014); 3) the apparent willingness to say things online that would not otherwise be said in person, reflecting distinct features of social information processing associated with online exchanges (Runions et al, 2103); and 4) the permanence of an online aggressive act leading to the potential for a repeated experience of victimization even

without repeated perpetration, intention or awareness on the part of the initial perpetrator (Law, 2012). In particular, it is this fourth consideration that makes it difficult to quantify cyberbullying since the intention behind and experience of cyberbullying does not necessarily correspond directly with cybervictimization, unlike in traditional offline bullying contexts.

Therefore, it is important to be aware that the prevalence of cyberbullying may differ from the prevalence of cybervictimization. This may explain some discrepancies when we consider the reported occurrence rates for cyberbullying among adolescents. Jones et al (2013) concluded from their longitudinal, cross-sectional study that online harassment (one term for and aspect of cyberbullying) has doubled in the past 10 years among adolescents ages 10-17 years, increasing from 6% in 2000 to 11% in 2011 (p. 53). Beran et al (2012), however, reported online harassment as affecting 21% of Canadian middle school students, 19% of US middle school students, and 11.5% of Australian middle school students. Similarly, Navarro et al (2013) summarized international reported online harassment as affecting from 20-40% of adolescents. This discrepancy is likely due to different ways of operationalizing cyberbullying and victimization and the overlap between these two terminologies. Indeed, the majority of research studies admit a discrepancy between reported cyberbullying and cybervictimization, but conclude that approximately 25% (range of 1% to 62% for cybervictimization) of typically developing adolescents report experiences with cyberbullying and victimization. In addition, cyberbullying involvement is reported by approximately 38% (range from 3% to 38%) of adolescents with SEN (Bonanno et al, 2013; Cappadocia et al, 2013; Cassidy, Jackson, & Brown, 2009; Didden, Scholte, Korzilius, De Moor, Vermeulen, O'Reilly, Lang, &

Lancioni, 2009; Elledge, Williford, Boulton, DePaolis, Little, & Salmivalli, 2013; Hinduja et al, 2012; Kowalski et al, 2011; Livingstone et al, 2012). Prevalence rates of cyberbullying appear to be increasing, although definitional and measurement discrepancies challenge the reliability of these results.

Overlap between cyberbullying and face-to-face bullying, similar to overlap that exists within face-to-face forms of bullying (i.e. physical, verbal, social or relational), impacts interpretations of cyberbullying prevalence and risk. Olweus (2012) believes that cyberbullying is overrated and over-reported, and that prevalence rates represent an overlap between individuals who are simultaneous participants in both face-to-face- and cyberbullying. In a 2007 study of 65,000 individuals (USA) and a 2008 study of 9,000 participants (Norway) that examined experiences with cyberbullying, face-to-face bullying or both, approximately 90% (88% and 93%, respectively) of youth were simultaneously involved in cyberbullying and face-to-face bullying (Olweus, 2012). While Hinduja et al (2012) agree that the isolated prevalence of cyberbullying may be overrated, their own research highlighted a greater prevalence of cyberbullying and a far smaller overlap than that found by Olweus, with only half of cyberbullies and cybervictims reporting involvement in face-to-face bullying (Hinduja et al, 2012). In their 2005 study of 1,378 adolescents, Hinduja et al (2008) found that face-to-face bullies were twice as likely to report being both cyberbullies and cybervictims, and that face-to-face victims were 2.5 times more likely to experience cybervictimization. More recently, Schneider, O'Donnell, Steuve, and Coulter (2012) found, in their study of 20,406 American adolescents, that only 36% of adolescents involved in face-to-face bullying at school were involved in cyberbullying (Bonanno & Hymel, 2013). Importantly, while

there is overlap between different modes of bullying it is difficult to determine the true rates of overlap between face-to-face and cyberbullying due to the methodological limitations in the cyberbullying field.

Comparing Face-to-Face and Cyberbullying

There are both differences and similarities between face-to-face and cyber-bullying. To authentically assess online risk, identify outcomes, and recognize those children at greatest risk online, Livingstone et al (2014) state that it is necessary to develop a systematic understanding of the relationship between on- and off-line bullying, as a starting point from which to unpack their similarities and differences. Bound by shared features, clear distinctions, and overlapping connections, a comparison of face-to-face- and cyber-bullying reveals potentially bi-directional risks and consequences.

Cyberbullying and face-to-face bullying share common participants and core features, suggesting that cyberbullying may be an electronic extension of traditional face-to-face bullying (Hinduja et al, 2012; Olweus, 2012). Common participant roles seen in both cyberbullying and face-to-face bullying are: 1) bully(ies); 2) victim(s); 3) bully-victim(s); and 4) bystanders. Bullies are those individuals in this dynamic whose behaviours perpetrate harm. Victims receive the perpetration of harm from these bullying behaviours. Bully-victims are those individuals in the bullying dynamic who may both perpetrate and respond with retaliation to received or perceived perpetration. Bystanders are individuals who do not actively engage in stopping bullying perpetration, but may lend perceived power to the individual enacting bullying behaviours by observing the negative interaction rather than helping the victim. A core feature common to both face-to-face and cyberbullying is the existence of an aggressive act that is repeated over time,

intended by an individual or group to harm another individual. Participation in on- and off-line bullying behaviours have been identified by most studies to involve both boys and girls equally, and there is no evidence to suggest that face-to-face or cyberbullying involvement differs based on race or ethnicity, when socio-economic status (SES) and access to technology are taken into account (Jones et al, 2013). Further, involvement in cyberbullying is most accurately and robustly predicted by participation in face-to-face bullying (Beran et al, 2012; Jones, Mitchell, Finkelhor, 2011; Livingstone, 2014). This supports the claim by Hinduja et al (2008) that "those predisposed to harass or mistreat peers perhaps choose to do so regardless of context – real or in cyberspace."

Since online interactions are typically communicative in nature, cyberbullying appears to function similarly to face-to-face verbal (swearing, name calling) or social-relational (exclusion, gossip, rumour-spreading) bullying, extended to technological mediums and modes. Surveys by Bonnano and Hymel (2013) of 399 BC adolescents in grades 8 to 10 found the most frequently reported forms of bullying were verbal and social, followed by physical and cyber forms of bullying, suggesting cyberspace may offer an extension of face-to-face verbal or social victimization. Over a 10-year period, Jones et al (2013) demonstrated that face-to-face bullying has decreased in association with an identifiable increase in cyberbullying, suggesting that face-to-face bullying – specifically that of a verbal or social-relational nature - had moved online, rather than halted (Jones et al, 2011; Olweus, 2012). Verbal and social-relational face-to-face bullying, specifically, have been considered female-dominated (Jones et al, 2011). This may correspond with Jones' et al (2013) further identifications that the number of females victimized online rose from 48% to 69%, while males victimized online dropped

from 52% to 31% in the same 10-year time period. Further, Jones et al (2013) found that the number of females perpetrating offences online increased from 20% to 48% (male perpetration dropped from 54% to 43%), supporting the notion that traditional face-to-face verbal or social-relational bullying may be moving online rather than decreasing (Jones et al, 2013). Cuervo et al (2014) and Jones et al (2014) found that cyberbullies primarily used social networking sites, or social media, to express their aggression. Cuervo et al (2014) further identified that the aggressive behaviours of cyberbullies were most frequently characterized by victim "denigration (16.2%), harassment (16.1%), and social exclusion," similar to verbal or social-relational dimensions of face-to-face bullying (p. 107). This increase in bullying online suggests that verbal or social-relational attacks may have simply shifted venues from a face-to-face to a cyberspace context. However, this shift is complex given that cyberspace lends some unique features to social information processing, bullying behaviours, and power dynamics (Jones et al, 2013).

The power imbalance that underlies bullying exists in both face-to-face and online contexts. Face-to-face physical bullying is characterized by a larger, stronger perpetrator dominating a smaller, weaker victim. Conversely, face-to-face verbal or social-relational bullying may involve a more popular or more socially competent perpetrator attacking a less popular or less socially competent victim, regardless of size or physical strength. Within an online context, cyberbullies' popularity and wit may be potential assets. In addition, technological skills, and abilities as a socially skilled thinker and writer may be more powerful online resources than they are face-to-face. While the nature of the power imbalance appears to exist similarly among all forms of bullying, the specific qualities that make an individual more 'powerful' have yet to be confirmed in cyberspace contexts.

The operationalization of power, and how power is defined both on- and off-line, is controversial. Law (2012) suggests that cyberbullying is founded more on the victim's lack of power than on the perpetrator's possession of it, arguing that online victims have limited control over their situation (i.e. They cannot walk away, stop an image or rumor from being disseminated, avoid their attacker or even see the attack coming, and they can be attacked anywhere there is technology, including the privacy of their home or bedroom leaving no escape or safe space.). Olweus (2008) and Hindujia (2008) reason that victims of face-to-face bullying also lack power – be this physical, social or verbal – and would experience similar feelings of powerlessness and lack control over their situation to those being bullied in an online context. Differences between the impact of bystanders on the bullying dynamic on- and off-line are also complex. Since power is gained or reinforced by witnesses or bystanders, the presence of a bystander or witness to bullying increases the bully's power and the intensity of victimization, both off- and on-line. The ambiguity and unknown quality of bystander numbers or specific identities online may affect cybervictims in different and incalculable ways when compared to face-to-face victims (Law, 2012). Offline, perpetrators may be empowered by greater numbers of bystanders present or observing a bullying incident, whereas online the actual witnesses are unknown but may be numerous, whether this is actually the case or only a perception of the bully or victim (Law, 2012). Alternatively, the second-hand observable nature of an act of cyberbullying may be comparable to bystanders in a face-to-face bullying incident telling an uncertain number of individuals, unidentified by the victim, about the witnessed incident. Cyberspace offers the potential for, but does not guarantee, an immeasurably large audience to bullying incidents; however, more research is required

to determine how often this is actually the case and how disseminated information about an offline bullying incident compares to those online.

Pervasive access to technology and the breadth of the virtual world potentially exacerbate cyberbullying risk factors for adolescents. The expansive nature of this virtual world extends beyond the confines of the school or community context and into victims' homes, leaving no "safe haven," and enabling a near limitless impact through "easily disseminate[d] hurtful emails, webpage links, photographs, instant messages, or text messages to a large number of peers in seconds" (Cappadocia et al, 2013, p. 172). Whereas face-to-face bullies require confidence and social power, Cappadocia et al (2013) asserts that since cyberbullying is covert, not socially constrained, it can be exercised by any youth regardless of his or her social standing or popularity at school. It "can be perpetrated from afar without having to interact with the person being victimized," therefore enabling participation from "adolescents who would not [otherwise] have the confidence or social status to victimize peers directly," such as may be the case for youth with disabilities or SEN (Cappadocia, 2013, p. 185).

Cyberbullying clearly shares many similarities with and may even offer an extended venue for face-to-face bullying, but also embodies uniquely online elements. Factors such as repetition of the bullying act, anonymity, and low levels of supervision may or may not impact the bullying experience with a different intensity than those experienced off-line for both bullies and victims.

Repetition in cyberbullying may manifest differently than for face-to-face bullying. Face-to-face bullying may involve distinct but repeated acts of victimization, escapable once out of the range of the bully(ies). Electronic mediums, however, enable a

single aggressive act by a cyberbully, intentionally or unintentionally, to be perpetrated indefinitely to a potentially unlimited audience], increase[ing] the perceived severity, [leaving a permanent trace, and] since there is no place to hide [(not even one's home, since technology is everywhere)], reducing controllability" (Sticca et al, 2013, p. 747). Discrepancies exist in the research on cyber anonymity, but reports indicate that up to 50% of cybervictims do not know the identity of their perpetrator (Cappadocia et al, 2013; Kowlaski et al, 2012). While face-to-face bullies cannot easily be anonymous, the potential for online anonymity in cyberbullying causes victims greater frustration, insecurity and fear (Sticca et al, 2013).

Social Information Processing (SIP), or how we communicate and process communication similarly and differently on- and off-line, further complicates comparisons of bullying experiences in both contexts. While online communication has been perceived as potentially 'leveling the social playing field' for individuals with visible physical disabilities, social difficulties, or SEN, caution must be exercised in this perception (Law et al, 2012). Online social venues involve interactions and communication, the success of which requires many of the same competencies and skills as face-to-face interactions. Further, there are aspects of SIP that are unique to online communication, which may or may not level the playing field for those with disabilities. SIP would predict that individuals with better communication competence would have more power both on- and off-line, although this is yet to be determined**.** What is clear is that multiple contextual and individual factors interact to determine risk assessment.

Individual Predictive Factors for Bullying Involvement

Through a social-ecological lens, Farmer et al (2011) suggests that adolescents' risk for bullying involvement involves a "complex array of factors that depend on the characteristics of the individual, characteristics of other youth in the social structure," and the broader interactive context by which they are influenced (p. 250). Face-to-face and cyberbullying risk will be examined by focusing on factors such as specific features of the individual, aspects of the microsystem (social connections), and features of the macrosystem (educational programming).

Most of what is known about risk and protective factors for bullying behaviours and involvement is derived from face-to-face bullying research. Identified overlap between on- and off-line bullying, recognize that cyberbullying and victimization rarely happen without concurrent face-to-face bullying involvement, suggesting overlapping risk factors (Hinduja et al, 2012; Olweus, 2012). Therefore, to authentically investigate the predictive factors for cyberbullying and victimization, a simultaneous examination of risk factors for face-to-face bullying and victimization is also required. The examination that follows identifies individual factors that increase risk for involvement in the bullying dynamic, both on- and off-line, in youth with and without SEN.

Involvement in face-to-face bullying. Face-to-face bullying involvement offline has been recognized as the most salient factor predicting cyberbullying and victimization in youth (Beran et al, 2012; Cappadocia et al, 2013; Cuervo et al, 2014; Jones et al, 2013, Olweus, 2012; Wells & Mitchell, 2014). According to Cappadocia et al (2013), face-to-face bullying and victimization "represent the only contextual risk factor for *both* cybervictimization, and simultaneous cyberbullying and cybervictimization" (p. 186). In

contrast, Cappadocia et al (2013) propose that "traditional victimization, but *not* traditional bullying perpetration, represented a risk factor for simultaneous involvement in cyberbullying and cybervictimization," suggesting that "youth who are bullied via [face-to-face] forms may retaliate against their attackers via electronic media because they perceive it as less risky (i.e., they can do it anonymously) compared to a face-to-face confrontation" (p. 186; Wells & Mitchell, 2014). Given the fact that adolescents with SEN are at twice the risk for face-to-face bullying involvement, this population may be at particular risk for cyberbullying and victimization.

Age. On- and off-line bullying involvement is elevated during early adolescence (middle school age students) when compared with elementary, high school and university age students (Hong et al, 2012; Jones et al, 2011; Jones et al, 2013). Early adolescence is "a critical period where youth explore new social roles" and pursue "status among peer groups, which can motivate aggressive behaviour" (Hong et al, 2012). In this context where some increased aggression is typical and motivation is driven by "positive peer regard and belongingness.…as a source of identity and self-evaluation," adolescents are predisposed to greater social risk and conflicts (Brechwald et al, 2011, pp. 167). In a study of youth ages 10 to 17 years old, Jones et al (2011) identified that individuals between ages 13 and 15 years were at the highest risk of victimization online. Understandably, bullying and victimization are more common during these years as peer interactions are a priority, interpersonal skills are developing, and youth are relying on peers to learn which behaviors lead to acceptance within their peer group (Brechwald et al, 2011; Hong et al, 2012). Around these ages, youth become increasingly aware of

academic and social norms, including those youth who are not meeting those norms (Rose, 2011).

Gender. Gender has not been identified as a significant predictor of face-to-face bullying involvement (Ybarra et al, 2006). However, with respect to cyberbullying, recent studies have identified girls as at increased risk (Jones et al, 2013; Navarro et al, 2013). Jones et al (2013) proposed that girls are significantly more likely to talk to friends (94% vs. 84%), family (81% vs. 69%), and acquaintances (46% vs. 36%) online, which increases their internet use, and potentially their cyberbullying risk (Navarro et al, 2013). Further, Jones et al (2011) identified that between 2005 and 2010, "distressing online harassment" rose by 50%, for girls but not for boys (p. 182). Because girls are more likely to be involved in traditional *relational* bullying, it may be that these face-to-face *relational* transgressions are moving online (Holtz et al, 2011; Jones et al, 2011). By 2010, Jones et al (2013) found that 69% of cyberbully-victims were female and 48% of cyberbullies were also female. Fifty-eight percent of bullies were known to their victims as either school friends or acquaintances, and 55% of the most distressing online transgressions were female-initiated. Navarro et al (2013) similarly found that females were more likely to experience cybervictimization than males. Therefore, gender may be a factor that influences type of bullying involvement, such as cyberbullying, even though it is not a factor face-to-face.

Sexual orientation, ethnicity and SES. Sexual orientation, race or ethnicity, and SES may also contribute to increased risk of bullying involvement. Lesbian, gay, bisexual, transgender, and questioning (LGBTQ) adolescents report more experiences of victimization than their heterosexual peers, although rates are yet unclear (Hong et al,

2012). Race or ethnicity and SES in isolation do not appear to increase risk of bullying involvement, unless an adolescents' race, ethnicity, or SES clearly differentiates them from their peer group. Classrooms with more prominent ethnic or SES diversity tend to report increased experiences of bullying and victimization compared with more homogeneous classrooms (Hong et al, 2012). Only when adolescents from low SES households are surrounded by youth from higher SES households, have they been identified as at increased risk of bullying involvement (Hong et al, 2012; Juvonen, 2007).

Time online. Jones et al (2013) and Ybarra et al (2004), demonstrated that adolescents at greatest risk of cyberbullying involvement are those who: 1) spend more time online (e.g., 5-7 days a week, often for more than 2 hours a day), 2) target chat rooms and social networking sites, 3) primarily communicate with friends, family or acquaintances online rather than in person, and 4) are weakly connected to their families, friends, and peers (Beran et al, 2012; Dooley et al, 2012; Jones et al, 2013; Navarro et al, 2013; Runions et al, 2012; Ybarra et al, 2004).

Time spent on social media or online gaming appears to predispose adolescents to cyberbullying involvement. Social networking sites, or social media, have been identified as the online location forum in which most major incidents of cyberbullying are reported (Cuervo et al, 2012; Jones et al, 2013). Increased time on social media, therefore, may increase the likelihood of engaging in the bullying dynamic. Online gaming has been identified as exacerbating internalizing and externalizing problems in youth (Holtz et al, 2011), with potential to bi-directional influences. Holtz et al (2011) identified that online first-person shooter games were preferred by adolescents with pre-existing externalizing problems. Adolescent fantasy gamers, in contrast, had a "higher probability of showing

marked internalizing problems, and were more likely to report elevated total problem behaviour scores (i.e. internalizing and externalizing behaviours, social problems, thought problems/compulsions, and attention problems)" (Holtz et al, 2011, p. 55). Disentangling whether participation in social media or specific gaming activities is preceded by or results in problem behaviours is challenging, however, it is clear that both of these online activities increase adolescent risks online.

Individual factors that influence time online also influence levels of online risk, particularly for those with EBD. In a survey of 1560 American adolescents with disabilities or SEN, Wells et al (2014) found that these youth spent fewer days a week and less time online than their peers. However, specific to youth with EBD, Lohaus et al (2005) found that externalizing problems in girls were positively correlated with increased computer use (Wells et al, 2014). Holtz et al (2011) extended this research, revealing that "clinically relevant externalizing problems [for girls and boys]" were associated with and predicted by specific types of online gaming and online social networking.

Cyberbullying awareness. Cyberbullying awareness, anti-bullying programming, and adult- or peer-monitoring may serve as protective factors. Preliminary evidence suggests that educational programming, awareness, and mobilized attention has reduced sexual cyber abuse (solicitation) and harassment by 50% since 2000 (Jones et al, 2011). However, interestingly this trend has not had an effect on cyberbullying. Sexual cyber abuse appears to be distinct from cyberbullying and cybervictimization, requiring different educational programming (Jones et al, 2011; Wells et al, 2014). Interestingly, parental- or adult-set limitations around internet use and monitoring have had little

impact on reducing cyberbullying (Jones et al, 2011; Wells et al, 2014). This may be because youth do not fully disclose their online experiences to adults, adults have the false illusion that they can effectively monitoring tech-savvy children's online exposure, and youth view adults as uninformed or ineffective confidants (Bonanno et al, 2013; Cassidy, 2009; Dooley et al, 2012; Hinduja, 2008; Navarro et al, 2013; Sticca, 2013 Topcu, 2012). Surprisingly, youth with SEN are less likely to be included in anti-bullying awareness and prevention programming, and may misunderstand their own aggressive actions perpetuating bullying, which complicates bullying recognition and reporting (Hinduja et al, 2012; Hong et al, 2012; Law et al, 2012).

Special Education Needs. SEN comprise a diverse spectrum of physical, academic and socio-emotional developmental challenges. Adolescents with SEN are at twice the risk of experiencing peer harassment, bullying, victimization, and long-term maladaptation due to negative peer interactions as their same age peers without SEN (Kowlaski et al, 2011; Mishna, 2003; Raskauskas et al, 2011; Rose, 2011; Scott et al, 2011). Rose (2011) asserts that "once difference is identified in a social context," such as at school or among peers, "disability emerges as a potential predictor for involvement in the bullying dynamic" (pp. 34-35). Alarmingly, individuals with SEN are less likely to identify or be identified as being involved in the bullying dynamic, and reported rates may underestimate actual occurrences of bullying involvement in this population. There is limited research regarding face-to-face and cyberbullying among individuals with SEN, and even less research regarding relative risk across youth with different types of SEN (Rose & Espelage, 2012). Heightened rates of face-to-face bullying among

adolescents with SEN, in addition to research suggesting that face-to-face bullying may be shifting online, suggests youth with SEN may also be at increased risk online.

Difference – physically, academically, or socially - may be the most significant individual characteristic separating adolescents from their typical peers and influencing risk of bullying. Individuals with physical disabilities were identified by Lindsay et al (2012) as twice as likely to be victimized face-to-face. Online, however, Wells et al (2014) suggest that individuals with physical disabilities more commonly establish close relationships and less frequently report cybervictimization.

Specific to academic challenges, research by Wells et al (2014) and Rose et al (2012) found that students with Learning Disabilities (LD) are at lower risk of bullying involvement than those with behavioural challenges. However, this may not be the case for youth who have LDs comorbid with other disorders, where the "same neurological deficit causes both academic and social problems…[where] academic problems lead to [further] difficulties such as poor self-esteem, frustration, and other barriers [such as academic segregation] to developing social skills" (Mishna, 2003). It may be that prior studies have not accounted for LD as comorbid with emotional and behavioral disorders (EBD) in youth, influencing behaviours and risk.

Socially and behaviourally, youth with ASD are at particular risk of negative social interactions face-to-face and online. Youth with ASD have particular difficulty reading social cues and communicating effectively with others, leading to great difficulty maintaining fluid social interactions (Kowalski et al, 2011) and developing friendships and social support systems (Bauminger, Shulman & Agam, 2003, 2004; Kuo, Orsmond, Cohn & Coster, 2011; Locke, Ishijima, Kasari & London, 2010; Macleod et al, 2010;

Petrina, Carter & Stephenson, 2014; Petrina et al, 2014). Students with ASD are at particularly high risk of victimization involvement, when compared with typically developing peers and other SEN (Kowalski et al, 2011).

Adolescents characterized by high levels of internalizing and/or externalizing behavioural challenges, such as the EBD group, have been identified as at greatest risk of face-to-face bullying, victimization, and/or both (Beran et al, 2012; Bonanno et al, 2013; Cuervo et al, 2014; Holtz et al, 2011; Navarro et al, 2013; Rose et al, 2012; Wells et al, 2014). Further, the "constellation of antisocial behaviours …represent[ing] a critical indicator for antisocial processes" among individuals with EBD, have also been identified as predisposing these youth to increased risk of cyberbullying (Kowalski et al, 2012, p. 1202). Therefore, the characteristics of adolescents with EBD may be considered particular risk factors for involvement in *both* face-to-face and cyber-bullying and -victimization.

Adolescents with EBD are characterized by high levels of internalizing and/or externalizing behaviours that compromise their self-regulation skills and social competence. Internalizing behaviours typical of individuals with EBD may cause them to retreat internally (i.e. anxiety, depression, somatic complaints, and social withdrawal), and include a variety of mental health disorders, such as Anxiety Disorders, Trauma-related disorders, Eating Disorders, and Mood Disorders. Externalizing behaviours, conversely, are evident in outward displays of aggression, defiance, violence, and disruptive behaviours, and are common in diagnoses such as Attention Deficit and Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), and Conduct Disorder (CD). There are many other disorders that present with a mix of both

externalizing and internalizing symptoms, including neurodevelopmental disorders such as Autism Spectrum Disorder (ASD) and Fetal Alcohol Spectrum Disorder (FAS/FASD), which are not the focus of the current study.

In British Columbia (BC), EBD students without co-morbid neurological disorders are identified within the school system using British Columbia Ministry of Education (BCMOE) Criteria in the SEN designation categories of moderate or intensive behavior. Students receive this designation when their internalizing and externalizing behaviors are severe enough to significantly interfere with their own function, or that of others at school, to the extent where they cannot be managed by regular school resources (British Columbia Ministry of Education, 2016). Based on the severity of their behaviours, students may be identified as requiring Moderate Behaviour Supports (MBS) or as requiring Intensive Behaviour Intervention/Severe Mental Illness (IBI). Students with the most significant internalizing and externalizing behaviors and those requiring the most intensive support are identified as requiring Intensive Behavior Interventions, or IBI. These students would be considered to be the most vulnerable and at the highest risk for a variety of negative outcomes.

Individual SEN Personality Traits Predictive of Roles in the Bullying Dynamic

By adolescence, strained relationships and low self-concept in those adolescents who have social and self-regulation deficits, can impact involvement in the bullying dynamic both off- and on-line. Specific personality characteristics can predispose an individual to being a perpetrator of bullying behaviours, victim, or bully-victim.

SEN characteristics predictive of bullying behaviours. Individual personality characteristics most strongly predictive of involvement in bullying behaviours appear to

be externalizing behaviours (Rose et al, 2012). Adolescents who exhibit bullying behaviours on- and off-line are observed to be more dominant, aggressive, impulsive, narcissistic, disruptive, negativistic, hold more positive views of violence, and have lower levels of empathy, social skills, and social competence (Bonanno et al, 2013; Dehue, 2013; Dooley et al, 2013; Elledge et al, 2013; Farmer et al, 2011; Georgiou & Stavrinides, 2008, Topcu et al; Juvonen, 2007; Modecki et al, 2013; Rose et al, 2012; Veenstra et al, 2005; Swearer, Espelage, Vaillancourt, Hymel, 2010, Fanti, Demetriou, & Hawa, 2012; Ybara & Mitchell, 2004). When identified by peers on sociometric indices of social preference or peer acceptance, bullies are most often distinguished from their peers as "rejected," due to limited social skills and fewer socially valued attributes (Farmer et al, 2011). Youth with social deficits, therefore, may "use bullying in a reactive manner to respond to a social world [they misinterpret, and in which]… they have little influence and support from peers" (Farmer et al, 2011, p. 250). Misguided assertiveness, weak self-control, and "a lack of appropriate behaviours to help in compromising situations" are common social deficits among individuals with externalizing behaviours (Rose et al, 2012, p. 134).

In some studies, however, bullying behaviours have been seen to increase social status in those with positive social competencies, including remarkable social intelligence, confidence, and popularity among peers (Cuervo et al, 2014; Farmer et al, 2011). Bullying behaviours that receive positive reinforcement or are exhibited by popular peers become accepted, shown the influence of the environment on social expectations and status (Farmer et al, 2011). Popular individuals who bully are often identified as "controversial," indicating that they demonstrate both "problematic

behaviours (i.e. high rates of aggression and bullying) along with socially favorable characteristics (i.e. athlete, attractive, leadership)" (Farmer et al, 2011, p. 249). These markedly different individual profiles of bullying characteristics complicate identification and differentiation of bullying risk among adolescents.

SEN characteristics predictive of victimization. Victims of face-to-face- and cyberbullying often exhibit internalizing behaviors. They are identified as being more introverted, as having lower self-esteem, weaker social skills and social competence, as showing higher levels of social withdrawal, shyness, anxiety, sensitivity, inhibitions, loneliness, and as displaying qualities of a disability or SEN (Dehue, 2013; Elledge et al, 2013; Farmer et al, 2011; Georgiou et al, 2008; Juvonen, 2007; Swearer et al, 2010; Veenstra et al, 2005; Ybara et al, 2004). Victims are often categorized by their peers as "neglected," or almost unanimously alienated or excluded in peer contexts (Farmer et al, 2011). Beyond their individual characteristics and perceptions by peers, pure victims are distinguishable from bullies or bully-victims most notably by their social responses to bullying perpetration with unskilled and overly passive means of reacting, such as retreating or avoiding (Farmer et al, 2011; Rose et al, 2012).

SEN characteristics predictive of bully-victimization. Bully-victims occupy a 'double identity' of reciprocal give- and-take in the bullying dynamic, simultaneously participating as bullies and victims. Face-to-face bully-victims demonstrate similar characteristics to bullies including impulsivity, narcissism, low affective empathy and low academic achievement. However, they also present many of the same social challenges as passive victims, including poor peer relationships and elevated anxiety and loneliness (Fanti et al, 2012; Georgiou et al, 2008; Ybara et al, 2004). Bully-victims

offline are characterized as having “high levels of both aggression and depression” and as scoring “low on measures of academic competence, pro-social behaviour, self-control, social acceptance, and self-esteem” (Veenstra et al, 2005, p. 673). Socially, they are either alienated from peers or connected with similarly marginalized individuals (Farmer et al, 2011). Bully-victims on- and off-line respond to bullying with retaliation and perpetuation of bullying rather than retreating, differentiating them from individuals who are uniquely bullies or uniquely victims.

Bully-victimization appears to be more common online than offline (Bonanno et al, 2013; Livingstone et al, 2014). Cyber bully-victims’ roles are blurred online, making it difficult to differentiate the perpetrator from the victim, or the bully-victim, and to identify and understand those individuals at greatest risk (Accordino & Accordino, 2011; Bonanno et al, 2013; Law et al, 2012; Livingstone et al, 2014; Modecki et al, 2013; Runions et al, 2013). Disproportionate representation of bully-victims online (45%) (Livingstone et al, 2014) compared to offline (20%) (Bonanno et al, 2013) highlights further need to understand the identities of those most at risk.

Social difficulties characteristic of bully-victims are associated with specific SEN. Bonanno et al (2013), Dooley et al (2012), Modecki et al (2013), and Vaillancourt et al (2013) demonstrated a positive association between on- and off-line bully-victimization and pre-existing internalizing problems, including depressive and emotional symptoms. Dooley et al (2012) also established a positive association between cyberbully-victim behaviours and pre-existing mental health and conduct problems, hyperactivity, weak peer relations, few pro-social behaviours, and long-standing maladaptive behaviours. The identities of bully-victims appear to differ on- and off-line. Cyberbully-victims appear to

share characteristics and behaviours with face-to-face bullies rather than face-to-face bully-victims, suggesting face-to-face bullies are involved as cyberbully-victims (both cyberbullying and cybervictimization) online. A study of 1,364 adolescents by Modecki et al (2013) identified individuals with low self-esteem as disproportionately involved as cyberbully-victims. What is clear is that mental health problems appear to enhance bullying risk in different contexts (Wells et al, 2014).

Bonanno et al (2013) suggests that the blurring of roles among cyber bully-victims may mean these roles are occupied by different individuals on- than off-line. Espelage and Swearer's (2003) survey of face-to-face bullying found that of the 30% of 15,686 grade 6 to 10 students self-identifying as being involved in face-to-face bullying, 43% identified as face-to-face bullies, 37% as face-to-face victims, and 20% as face-to-face bully-victims. Mishna, Khoury-Kassabri, Gadalla and Daciuk (2012) discovered, in a study of 2,186 adolescents, that among 30% of the adolescents identified as involved in the cyberbullying dynamic, 45% of these identified uniquely as cyber bully-victims (Livingstone et al, 2014). These results suggest that the experience of being both bully and victim may be exacerbated in an on-line context. Understanding the factors that place individuals at unique risk for cyberbullying is clearly important, given the high percentage of youth involved. This is particularly pertinent for individuals with SEN, who are at increased risk of bullying involvement in traditional settings and therefore likely at higher risk in online settings.

While adolescents with SEN have been identified as being at greater risk of involvement in bullying, until recently, factors such as specific diagnosis, level or type of SEN, and interacting protective or risk factors had not been investigated in this group. It

is likely that not all adolescents with SEN are at the same risk of bullying involvement (Rose et al, 2012). For example, while many adolescents with SEN lack age-appropriate social awareness and skills, which may increase their risk of bullying involvement, this is not the case for all adolescents with SEN. Those research studies that have looked at the relationship between SEN and bullying, generally do so by comparing those with a disability to those without, which does not take into account the relative risk associated with different types of SEN (Rose et al, 2012; Macoun et al, unpublished manuscript). In fact, preliminary research suggests that within the global population of adolescents with SEN, those with EBD may be at much greater risk of bullying perpetration in face-to-face contexts compared with both typical adolescents and those who have other types of SEN (Rose et al, 2012).

Microsystem Predictive Factors for Bullying Involvement

Connectedness and social support. Within-person risk and protective factors interact with the social networks that surround individuals, including teachers, families and peers. Positive connections with and social support from peers and caring adults appear to be a protective factor that inhibits or buffers against the negative effects of bullying involvement, both in youth with and without SEN. Friendships and familial connectedness "improve overall well-being, sense of belonging, emotional-behavioral function, and academic performance, in addition to reducing the risk of victimization" (Petrina et al, 2014).

Teacher connectedness and social support. Teacher-student relationships during middle school years may protect or exacerbate bullying. Adolescents are more conscious of their individual differences, experience increased academic and institutional

disengagement, and may perceive "social alienation" and a "lack of perceived support," increasing their educational and behavioral risks (Juvonen, 2007). These risks are magnified among marginalized adolescents. Teachers are in a unique position, as the social and academic architects of their classrooms, to buffer against negative experiences, or to exacerbate problem behaviours and maladjustment (Juvonen, 2007; Farmer et al, 2011).

Regarded as the most significant of all school-based relationships, teacher-student relationships present substantial risk when they are negative (Juvonen, 2007; Farmer et al, 2011). School environments in which teachers minimally connect, intervene, and monitor student interactions result in increased bullying (Hong et al, 2012). Students with behavioural and academic challenges, particularly common in adolescents with SEN, are more susceptible to conflicted or unsupportive relationships with teachers (Juvonen, 2007; Sabol et al, 2012), which are then associated with poor socio-emotional adjustment, low social competence, academic disconnection, and "high levels of involvement in bullying both as bullies and victims" (Farmer et al, 2011, p. 248). Further, strained relationships with teachers "reinforce problem behaviours," "sustain a pattern of [internalizing or externalizing] social-emotional [and academic] adjustment problems," and contribute to social alienation among peers (Farmer et al, 2011; Juvonen, 2007; Sabol et al, 2012).

Quality relationships and a sense of connectedness between children and their teachers, is predictive of improved academic performance, psychosocial function, motivation, and engagement at school (Farmer et al, 2011; Junoven, 2007; Sabol et al, 2012). Strong relationships with teachers appear to "decelerate the deleterious effects of

risk and promote healthy functioning" among those with identified internalizing and externalizing problems (Sabol et al, 2012, p. 219). If attuned to their students and classroom social dynamics, teachers are uniquely positioned to "shape the peer ecology" in order for students who struggle socially to "develop new social roles or identities that enhance how they are perceived by peers," how they perceive themselves, and the consequent social opportunities and positive connections that protect them (Farmer et al, 2011, p. 249). Students who are better appreciated by their teacher are consequently more respected and included by peers (Farmer et al, 2011). Youth with internalizing or externalizing problems, who are close with a teacher, have reduced delinquency and socio-emotional problems, improved academic engagement and outcomes, enriched social skills with less conflicted and closer relationships with peers and adults, and enhanced behavioural adaptation (Farmer et al, 2011; Sabol et at, 2012).

Peer connectedness and social support. Within the middle school years, the presence of a strongly connected network of friends is protective, while lacking peer acceptance and prosocial connections is a risk factor for bullying involvement (Farmer et al, 2011; Hartup, 1996; Juvonen, 2007). In fact, one specific indicator of increased risk of bullying involvement is the absence of a best friend (Hong et, 2012). A lack of strong peer connections or acceptance is a reality for many adolescents with SEN, due to the greater likelihood of social skill deficits (Bauminger, Shulman, Agam, 2003, 2004; Kuo et al, 2011; Macleod et al, 2010; Petrina et al, 2014). In addition, when school culture does not support inclusion and diversity, further exclusion from opportunities for peer relationships increases the risk of bullying or victimization (Farmer et al, 2011).

Hartup (1996) asserts that "knowing they have friends tells us one thing, but identity of friends tells something else," implying that friend and friendship characteristics are a risk factor. Associating with friends who exhibit antisocial behaviours may occur with greater frequency in adolescents with SEN due to the tendency of individuals to be drawn to those with whom they share similar behavioral characteristics or experiences, or due to social alienation and academic segregation from more positive peer groups (Hartup, 1996; Juvonen, 2007). Consequently, adolescents with problematic behaviours or socio-emotional difficulties may gravitate to peers who also have difficulties, further reinforcing antisocial behaviours (Hartup, 1996; Juvonen, 2007). On the other hand, adolescents in segregated programming may have less opportunity to develop friendships with peers who demonstrate positive social skills, causing them to form friendships with others who may be similarly socially rejected (Juvonen, 2007). Further, if those relationships are "coercive and conflict-ridden" they pose significant "developmental disadvantages, especially among antisocial children," (Hartup, 1996). When adolescents are friends with bullies, there is a higher likelihood they will participate in the bullying dynamic (Farmer et al, 2011).

As with typical adolescents, friendships among youth with SEN function as "cognitive and social resources on an everyday basis" (Hartup, 1996). Peer acceptance is a protective factor against victimization, and positive friendships shield adolescents from adverse consequences resulting from bullying (Hong et al, 2012). Such supportive social connections have been demonstrated to improve socialization and social skills, reduce loneliness, increase self-confidence and adaptability, increase connectedness and a sense of belonging, and improve overall mental health in adolescents with SEN (Bauminger et

al, 2003; Hartup, 1996; Juvonen, 2007; Mazurek & Kanne, 2010). Therefore, quality friendships and having a social network may be a protective factor "buffer[ing] against some of the negative effects of social challenges associated with special education needs" (Cottenceau et al, 2012; Hartup, 1996; Lasgaard et al, 2010; Macoun et al, unpublished manuscript;), but it may also serve as a risk factor when the quality or network is negatively reinforcing.

Family connectedness and social support. Strained child-caregiver relationships may increase risk of bullying involvement. Insecure parent-child attachments, inter-parental violence, and negative parenting practices influence childhood social development in ways that place youth at increased risk of bullying and victimization (Hong et al, 2012). When children have not developed a secure attachment with their parents, they are at increased risk of developing "poor social skills, poor self-regulation, [and] aggressive behaviours," leading to "peer conflict" and consequent rejection (Hong et al, 2012, p. 316). Further, "negative adult influence, lack of parental involvement, and lack of parental support are associated with bullying perpetration" (Hong et al, 2012, p. 315). Violence between parents, conflict between parents and children, and unhealthy interactions among family members correlates with increased risk of simultaneously becoming both a bully and a bully-victim (Hong et al, 2012). It is important to note that, negative parenting practices affect and position girls and boys differently with respect to risk. Overprotective mothers impede autonomy development in boys, hampering opportunities for self-regulation and conflict resolution, thus compromising their ability to establish themselves competently in their peer group and increasing their risk of victimization (Hong et al, 2012). Girls of overprotective mothers may experience

compromised connectedness with peers (Hong et al, 2012). Alternatively, girls with emotionally abusive, intimidating, or detached mothers are highly susceptible to victimization due to impeded social skill development resulting in limited emotional self-regulation and effective communication skills (Hong et al, 2012). Most alarming is that the "combination of adjustment problems in the adolescent (aggression) and parental risk (poor parenting practices) may be particularly resistant to protective influences" (Hong et al, 2012, p. 316).

Positive family relationships may be considered incredibly inclusive, stable, and protective, especially for some individuals with SEN (Bowes et al, 2010; Holtz et al, 2011; Macoun et al, unpublished manuscript; Stadler et al, 2010). When risk factors such as age and internet use were accounted for, one common factor among adolescents who demonstrated less negative internalizing and externalizing consequences from negative online interactions was their open communication about their internet experiences with parents (Holtz et al, 2011). While not a demonstrated protective factor for youth of all races or ethnicities, living with two biological parents has been a demonstrated protective factor against bullying involvement for Caucasian adolescents (Hong et al, 2012). For all youth, emotional connectedness with a caring adult – be it a parent, teacher, caregiver, or friend - appears to be a strong protective factor.

Macrosystem Predictive Factors of Bullying Involvement.

Further influencing interacting predictive factors of risk for youth are the policies and programming addressing their diverse needs in schools. Segregated versus inclusive programming position youth differently for social development, opportunities, and risk.

Segregation policies and programming. Students who are segregated from general education classrooms based on their academic and behavioural differences appears to be at twice the risk for bullying involvement (Juvonen, 2007; Rose, 2011). Segregated classrooms have been considered to perpetuate a social value of exclusion by actively differentiating and distancing adolescents from their peers and social networks (Hong et al, 2012; Juvonen, 2007; Rose, 2011). Segregated adolescents with SEN often have a reduced sense of belonging, fewer relationships with pro-social general education peers, and more interactions with less socially competent peers, leading to fewer modeling opportunities for pro-social behaviours, less opportunity to practice pro-social skills, less pro-social connections and networks, and generally less healthy social development (Juvonen, 2007). This can lead to a greater chance of developing disruptive and conflict-ridden peer relationships (Hartup, 1996). Rose (2011) found that "students with disabilities in more restrictive (segregated) environments [(i.e. self-contained behaviour or special education classrooms)] engaged in more bullying and fighting behaviours than students with disabilities in inclusive settings and their general education peers" (p. 38). In general, problem behaviours in school and increased involvement in bullying and peer victimization are significantly correlated with reduced school (or classroom) connectedness (Hong et al, 2012).

Inclusion policies and programming. Policies and programming are trending towards inclusion, with those with SEN being seen as best supported and protected within inclusive educational environments. Including students with SEN in general education classrooms enables teachers to integrate students with diverse learning and social needs, providing both opportunities for learning among diverse groupings (i.e. socially

struggling individuals learn from those with strong social skills), and the orchestration of a community of social respect, acceptance, positive peer behaviours, and initiation and growth of protective peer and adult connections (Farmer et al, 2011; Rose et al, 2012). However, research supporting inclusion is inconsistent in its findings and does not unanimously demonstrate that it is the most successful/protective measure for every child or meets every child's needs (Begeny et al, 2007; Hausstatter, 2014; Jull, 2008; MacArthur, 2013; Rose, 2011; Saylor et al, 2009; Wendelborg et al, 2011; Zablotsky et al, 2013).

Whether in inclusive or segregated programs, youth are at greater risk for bullying involvement when they lack pro-social opportunities, or where they are surrounded by an abundance of anti-social interactions, either face-to-face or on-line. For students who are included in the general education classroom setting, social dynamics within the popular group can influence bullying behaviour. The behaviours demonstrated by popular students in any group – segregated or not – are those modeled and assumed by the larger group as a whole (Farmer et al, 2011). Therefore, Farmer et al (2011) found, "bullying behaviours yield great popularity among all students in a classroom in which popular students used bullying behaviours" (p. 251). Youth with more vulnerabilities are at increased risk of bullying involvement in these environments.

When youth with EBD remain in the general education classroom, they are not always provided with the necessary supports to form or maintain friendships with better-adjusted classmates (Juvonen, 2007). Mishna (2003) considers that social challenges experienced by individuals with SEN "may be due as much to the biases of other children as due to their own behaviour," suggesting that social hurdles and alienation further

disable individuals with pre-existing social deficits (p. 337). Without appropriate peer connections and a social network, EBD youth are at a disadvantage in that they often lack the skills to develop these connections or networks (Farmer et al, 2011; Juvonen, 2007; Veenstra et al, 2005;). In this sense, students with EBD may become less socially equipped and protected over time, further increasing their risk of bullying involvement (Juvonen, 2007).

Individual attributes that place youth with EBD at higher risk of bullying involvement can be further exacerbated by deviant peer influences on one hand, or social exclusion, on the other hand. Being different, disliked, isolated, excluded, or included with similarly anti-social peers, reinforces and exacerbates anti-social behaviours over time and increases risks of bullying involvement (Farmer et al, 2011; Hartup, 1996; Juvonen, 2007).

Exceptional Bullying Involvement Risks for Individuals with EBD

EBD and face-to-face bullying behaviours. Face-to-face bullying involvement is exacerbated in the presence of social skills and social awareness deficits, which are particularly common in youth with EBD (Hong et al, 2012; Kaltiala-Heino & Frojd, 2011; Kowalski et al, 2011; Mishna, 2003; Rose, 2011). Adolescents with EBD are recognized as having atypical internalizing and/or externalizing behavioral challenges due to diagnoses of moderate to severe mental illnesses that interfere with their successful ability to function across academic, behavioral, emotional, and social domains without substantial internal and/or external supports and resources. Deficits in social awareness, social understanding and social interaction characteristic of individuals with EBD limit the quantity and quality of their social supports and friendships (Carter, Davis,

Klin, & Volkmar, 2013; Levy & Perry, 2011; Macoun et al, unpublished manuscript). By virtue of social challenges, adolescents with EBD are at unique risk for involvement in both bullying and victimization behaviours (Begeny & Martens, 2007; Bradshaw, Anderson, & Law, 2013; Hausstatter, 2014; Jull, 2008; MacArthur, 2013; Rose et al, 2012; Rose, 2011; Wendelborg & Tossebro, 2011; Zablotsky, Saylor & Leach, 2009;).

In face-to-face bullying contexts, adolescents with EBD have been identified as most at risk of perpetrating bullying behaviours. Rose et al (2012) conducted a study of 326 Grade 7 and 8 students between the ages of 12 and 15 that compared youth with and without SEN, and then further investigated different SEN categories. These authors demonstrated that when compared with their same age peers, adolescents with EBD were twice as likely to be bully-victims and almost six times as likely to be involved in aggressive face-to-face physical transgressions as bullies. Students with EBD were involved in "higher levels of proactive aggression (i.e. bullying) and reactive aggression (i.e. fighting) than other subgroups of students" with or without SEN (Rose et al, 2012, p. 144). As expected, students with SEN other than EBD exhibited characteristic face-to-face bully-victim profiles, where "increased levels of victimization predicted higher levels of bullying" (Rose et al, 2012, p. 144). Since bully-victims typically possess weak social skills and tend to use proactive aggression to moderate or prevent further victimization, this was expected (Rose et al, 2012). However, increases in victimization did not correlate with increased bullying behaviours in the same way for youth with EBD, in that individuals with EBD were identified as exhibiting characteristic bullying behaviours, initiating reactive aggression independent of personal victimization (Rose et al, 2012).

Beyond the work of Rose et al (2012), the research focused on bullying experiences among individuals diagnosed with EBD is extremely limited. Studies of individuals with ADHD, who display externalizing social-emotional behavioural difficulties and who are often classified as EBD, indicate a higher prevalence of face-to-face bullying perpetuation (Didden, Scholte, Korzilius, De Moor, Vermeulen, O'Reilly, Lang, Lancioni, 2009). Youth with ADHD have been shown to demonstrate bullying behaviours of being "unyielding, …impulsive, aggressive and demanding …alienat[ing] them from their peers but also frequently elicit[ing] bullying from others" (Kowalski et al, 2011, p. 1202).

Awareness of which social characteristics and behaviours place adolescents with EBD at increased risk of bullying, both on- and off-line, is crucial. According to Rose et al (2012), youth with EBD display higher levels of externalizing behaviors (anger, fighting, disruptive/delinquent behaviors, proactive and reactive aggression), positive views towards bullying, and reduced empathy (Rose et al, 2012). Developmentally in typical youth, aggressive behaviours are more direct or overt in early childhood and become indirect or subtle over development (Rose et al, 2012). However, this pattern is different in youth with EBD because they often lack the "appropriate social skills to promote typical social development, and developmental awareness and progress related to factors central to bullying such as aggression lag behind age-appropriate developmental patterns" (Rose et al, 2012, p. 134). Rather, adolescents with EBD continue to reactively aggress with direct fighting behaviours in response to feelings of anger, above and beyond that seen in adolescents with other SEN and among typically developing youth (Rose et al, 2012). While anger is predictive of bullying behaviours among all adolescents with SEN, significantly higher levels of anger and associated

bullying and fighting behaviours are seen in adolescents with EBD (Rose et al, 2012). Given that youth with EBD are at heightened risk of face-to-face bullying and victimization, questions arise as to whether this same pattern is seen within their interactions online.

EBD and cyberbullying behaviours. Examining specific risk factors for cyberbullying in youth with EBD to date has been restricted to individuals diagnosed with ADHD and those whose EBD are comorbid with neurological disorders such as ASD (Didden et al, 2009; Kowalski et al, 2012). The research has not yet systematically investigated risks for cyberbullying or victimization across individuals with other types of EBD, even though these individuals are known to be at higher risk for face-to-face bullying (Hinduja et al, 2008; O'Donnell et al, 2012). Factors such as the identities of perpetrators, prevalence, and risk factors associated with cyberbullying in EBD are still uncertain. What is likely is that since social interactions among all adolescents occur off- and on-line, both positive and negative interactions will be mirrored in both spaces. Given that individuals with EBD are more likely to be involved in face-to-face bullying and that face-to-face bullies are twice as likely to become cyber bully-victims (Hinduja et al, 2008), it follows that youth with EBD may be at particular risk for cyberbullying experiences.

For youth with EBD, interactions online are likely influenced by the same social difficulties in the virtual world as in the real world, with increased online time exacerbating this risk (Kowalski et al, 2012). For example, individuals who report experiencing online harassment have been identified as having less developed social skills in real life (Kowalski, 2012). For example, Didden et al (2009) found a high

correlation between online bullying and cybervictimization, with "significant associations between cyberbullying and IQ, type of disorder (ADHD and/or ASD), self-esteem and depressive feelings, and frequency of computer use" (p. 149-150). Kowalski et al (2012) found that a "large percentage of individuals [with ASD and/or ADHD] have been a target of face-to-face bullying, frequent perpetrators of face-to-face bullying, …[and report a] high[er] rate of involvement in cyberbullying as victims …than that observed among individuals without special needs" (p. 1206). Those individuals with both ASD and ADHD would be uniquely at risk due to both social deficits and externalizing behavioral problems, and particularly communication deficits relative to both. Although individuals with ASD and/or ADHD report a lower rate of cyberbullying perpetration compared with face-to-face bullying perpetration, it may not be that their "aggressive behaviours are not being carried over to online activities, but that children with these SEN are simply not identifying some of their online behaviours as cyberbullying" due to a lack of social insight (p. 1206). Adolescents with SEN may be increasingly susceptible to cyberbullying due to their elevated, unmonitored and/or misunderstood computer usage within and outside of schools. Increasingly, in school and at home, adolescents with SEN (including those with EBD) have access to and use technology as a common accommodation tool. Although this may help to 'level the playing field' with respect to learning, it could increase vulnerability to cyberbullying, particularly if unsupervised (Didden et al, 2009; Feng, Lazar, Kumin, & Ozok, 2010; Kowalski et al, 2012).

Consequences of bullying involvement for youth with EBD. Participation as bullies, victims or bully-victims appear to result in markedly different consequences face-to-face than online (Bonanno et al, 2013). The long-term consequences of face-to-face

bullying includes delinquency, crime, alcohol abuse, low achievement and high levels of depressive symptomology (Georgiou et al, 2008; Sticca et al, 2013; Ybara et al, 2004). In contrast, long-term effects of victimization are lower levels of self-esteem, lower relationship qualities, and a number of psychosocial difficulties including high levels of anxiety (Georgiou et al, 2008; Sticca et al, 2013; Ybara et al, 2004). Negative long-term consequences following face-to-face bullying appear to be experienced by bully-victims, who internalize and manifest severe psychosocial challenges, including high rates of depression, anxiety, anhedonia, somatization, co-occurring disorders and psychiatric referrals, significant behaviour problems, conduct problems, attachment disorders, interpersonal problems, and overall difficulty functioning (Fanti et al, 2012; Georgiou et al, 2008; Ybara et al, 2004). However, pre-existing EBD characteristics may be the cause of both these long-term consequences and involvement in bullying dynamics, with involvement in bullying dynamics exacerbating pre-existing symptomology.

While risk trajectories are well-defined in face-to-face contexts, this is not the case online, where the identities of participants, specific risk factors, and long-term outcomes are less clear. Bonanno et al (2013) studied 399 grade eight to 10 students and found that while being a cyberbully or cybervictim was predictive of equivalent risks for both depression and suicidal ideation, involvement as a cyberbully-victim predicted significantly higher levels of suicidal ideation than it did for cyberbullying or cybervictimization in isolation. Participation in cyberbullying and/or cybervictimization were significantly associated with internalizing difficulties, independent of involvement in face-to-face bullying (Bonanno et al, 2013). In fact, depression and suicidal ideation were more significantly predicted by involvement in face-to-face relational bullying and

victimization than for any other form of cyber- or face-to-face bullying or victimization (Bonanno et al, 2013). Involvement in cyberbullying, as either a victim or a bully, uniquely contributed to suicidal ideation, over and above the contribution of involvement in face-to-face forms of bullying (Bonanno et al, 2013). However, some inconsistent risk trajectory results have been found online (Bonanno et al, 2013), which may be an indication that interactions online, while not yet necessarily being measured accurately or consistently, are also interpreted differently, and are therefore accompanied by different elements of risk and consequence.

Blurred risks and consequences beg the question of whether the long-term consequences of bullying involvement are a specific outcome of bullying or are resulting from the pre-existing risk factors that predispose adolescents to bullying. The reported consequences of both cyber- and face-to-face bullying involvement include increased problem behaviours, low self-esteem, and depressive symptomology (Beran et al, 2012; Navarro et al, 2013; Werner et al, 2010), all of which are risk factors that predict bullying involvement in the first place. In both face-to-face and cyber environments, studies by Bonanno et al (2013), Modecki et al (2013), Dooley et al (2012), and Vaillancourt et al (2013) have demonstrated that pre-existing internalizing problems, such as depressive symptoms, predict involvement in bullying and victimization. Further, bullying involvement then exacerbates these pre-existing internalizing difficulties, bi-directionally. Dooley et al (2012) found that there was no increase or decrease in depressive symptoms for cyber bully-victims following aggressive responses to perpetrators, suggesting that depression may be a pre-existing SEN rather than a consequence of victimization. This research suggests that it may be the association

between aggressive responses and mental health difficulties, or problem behaviors, in cyber bully-victims that is bidirectional and mediated by long-entrenched maladaptive social skills. It is evident that risk factors for bullying and consequences of bullying are challenging to disentangle, making it virtually impossible to differentiate risk factors from consequences. For this reason, the current study recognizes the bi-directional nature of bullying. Rather than seeking to disentangle risk factors from consequences, this research will adopt a social-ecological lens to explore the association between bullying experiences (off- and on-line) and specific individual characteristics and interacting factors that predispose adolescents to involvement in the bullying dynamic.

Thesis

The goal of this research is to investigate dimensions of bullying behavior, on- and off-line, in students with EBD, compared to students without identified SEN (non-EBD). Considering specific risk factors for bullying involvement will hopefully highlight some of the factors that contribute to bullying behaviours. The choice of specific risk and protective factors was informed by social-ecological theory (Bronfenbrenner, 1977) and by the following: 1) Rose and Espelage's (2012) study that identified individuals with Emotional and Behavioral Disorders (EBD) as being overrepresented in face-to-face bullying; and 2) Jones, Mitchell, and Finkelhor's (2013) contention that cyberbullying is simply traditional relational bullying extended to the on-line context, and may increase risks online for female adolescents. Parts of Rose and Espelage's (2012) study will be replicated, informed and extended by selected questions from the research study by Jones et al (2013). The 3 following hypotheses are proposed:

1) Face-to-face bullying and victimization experiences will be higher among adolescents with EBD compared to typically developing adolescents (non-SEN and non-EBD);

2) Cyberbullying and cybervictimization experiences will be higher among adolescents with EBD compared to typically developing adolescents;

3) Risk and protective factors, including connectedness (peer, teacher, familial), time online (specific only to cyberbullying and victimization), gender, designation (IBI versus non-designated students) and type of programming (inclusive versus segregated) will be associated with the amount of face-to-face and cyberbullying experiences for adolescents with and without EBD.

Chapter 3

Methodology

Participants

Participants included 174 Grade Seven and Grade Eight students (93 females and 81 males), ranging in age from 11 to 15 years (M = 12.85, SD = .643), from nine different public middle schools in the Greater Victoria area. Students were sampled from two school districts (Greater Victoria School District No. 61 and Sooke School District No. 62), which are diverse in terms of physical location (e.g., inclusive of rural, urban, suburban, and First Nations), ethnic background, and SES. Following ethical approval from the University of Victoria Human Research Ethics Board and both school districts, 14 middle school principals were contacted via email and telephone to request their participation in the study. Nine principals in the Greater Victoria School District (SD61) and two principals in the Sooke School District (SD62) consented to the participation of their schools. The final school sample consisted of eight schools from SD61 and one school from SD62, with the majority of participants drawn from SD61. Youth participants were recruited via a study information package (information brochure, a parent or guardian consent form, and a youth consent form) that was sent home electronically to all students by each school principal. This was followed by hardcopies handed out from participating Grade Seven and Eight teachers to their students to take home to their families.

Two hundred and two participants responded, but due to time constraints only 174 students were surveyed and 134 of those surveyed chose to be interviewed. Of the 174 participants surveyed, ten participants were excluded from the final data analysis as they

held SEN designations other than EBD (five with Learning Disabilities, four identified as Gifted and one with a Physical Disability or Chronic Health concern), which can be associated with emotional and/or behavioural challenges (Mishna, 2003) and thus overlap in characteristics with the EBD group. One-hundred and sixty-four participants (89 females and 75 males; 30 EBD and 134 non-EBD), were included in the final sample for this study. Of these participants 127 completed the interview (71 females and 56 males; 30 EBD and 97 non-EBD).

The EBD group consisted of students who held a school district special needs designation under the Intensive Behavioural Intervention/Severe Mental Illness (IBI) BC Ministry of Education category (BCMOE; British Columbia Ministry of Education, 2016). Students were accepted into the study if they had a sole IBI designation or a dual designation that included both IBI and another SEN designation. Due to the fact that IBI often co-occurs with other types of disabilities/designations, it was felt that excluding students with dual designations could reduce the representativeness of this sample. Based on the BCMOE Policy and Procedures Manual (British Columbia Ministry of Education, 2016, p. 56) an IBI designation is for students who exhibit consistent/persistent antisocial or extremely disruptive behaviour in most environments, or students who are diagnosed with serious mental health conditions/illnesses manifesting in "profound withdrawal and/or internalizing behaviours" (British Columbia Ministry of Education, 2016, p. 56). Students within this designation category can present as "very vulnerable, fragile students who are seriously 'at risk' in the classroom and other environments without extensive support" (British Columbia Ministry of Education, 2016, p. 56). These students "warrant intensive interventions by community agencies/service providers beyond the school,

[may be] a serious risk to the student or others, and/or [exhibit] behaviours that significantly interfere with [their] academic progress and that of [others]" (British Columbia Ministry of Education, 2016, p. 56). These students may also be those who are "beyond the normal capacity of the school to educate…to benefit from typical special education support/interventions,…the use of alternate settings and other means in the school environment" (British Columbia Ministry of Education, 2016, p. 56). For the purposes of this paper, these students will be referred to as EBD and students without this or any other designations will be referred to as non-EBD youth.

Within the EBD group, 22 students had sole EBD designations and eight students had dual designations (seven with a Learning Disability and one with a Mild Intellectual Disability). Six students were receiving their education in a segregated Behaviour Program (a self-contained classroom within one school for students from across the school district whose needs are not being successfully met inside their regular school or an inclusive classroom environment). The other 24 EBD students were learning in regular, general education classrooms in each of their respective schools.

The non-EBD group consisted of 134 adolescents who did not have any SEN designations, EBD or otherwise. Of these participants, three were identified as receiving minimal support outside of the classroom. None of these students had a formal diagnosis or were formally identified by their respective schools as in the process of seeking a diagnosis/designation. These students were perceived as typically developing. Within this group, those who were receiving additional supports outside the classroom were doing so based on missed foundational skills rather than suspected learning, developmental, or mental health/behavioural concerns. See Table 1 for a summary

participants' age, gender, and grade organized by designation categories. See Table 2 for a summary of the supports and services that participants were receiving by group to identify the proportional differences between these two groups.

Table 1

Participant Demographic Data by Research Group

	Non-Designated Control Group			IBI-Designated Students			Total Population
		Mean	SD (range)	N	Mean	SD (range)	
Age	**134**	**12.85**	**.643**	**30**	**12.60**	**1.037**	**164**
11 year olds	**0**			**3**			
12 year olds	**39**			**14**			
13 year olds	**76**			**6**			
14 year olds	**19**			**6**			
15 year olds	**0**			**1**			
Grade	**134**	**7.47**	**.501**	**30**	**7.10**	**.712**	**164**
Grade 6	**0**			**6**			
Grade 7	**71**			**15**			
Grade 8	**63**			**9**			
Gender	**134**			**30**			**164**
Females	**80**			**9**			
Males	**54**			**21**			

Table 2

Student Supports and Services

		Segregation Versus Inclusive Programming								
	% Receiving Pull-out or Segregated Support	**Full Inclusion** (No Pull-out Programming)			**Partial Inclusion** (Varied Pull-out Programming)			**Segregation** (Behaviour Program)		
		N	**Mean**	**SD**	**N**	**Mean**	**SD**	**N**	**Mean**	**SD**
IBI-Designated (EBD) Students	37%	19	**.80**	**.407**	5	**3.83**	**1.77**	6	**.23**	**.43**
Non-Designated Control Group	2%	131	**.24**	**.429**	3	**1.51**	**1.08**	0	—	—

Measures

A 57-item self-report, behaviour-specific survey called the *Peer Experiences and Connectedness Survey (PECS)* was created for this study, in addition to an optional 6-question interview. Together the survey and interview were named The *Peer Experiences and Connectedness Study*. The PECS Survey consisted of items drawn from the University of Illinois and Wellesley College Student Behaviour Survey (UISBS: Rose, 2010) and the Youth Internet Safety Survey (YISS; Jones et al, 2013). The PECS Survey consists of 5 scales: Online Behaviours - Bullying, Online Behaviours – Victimization, Face-to-Face Behaviours – Bullying, Face-to-Face Behaviours – Victimization, and Connectedness/Social Support. Connectedness/Social Support was separated into 3 subscales: Connectedness to Teachers, Connectedness to Family and Connectedness to Friends. A follow-up interview was conducted to provide more detailed information specific to each the PECS Survey scales in order to inform survey responses.

The PECS Survey questions were drawn from the UISBS and YISS since both instruments have previously been used with adolescents with and without SEN designations in North America (Rose, 2010; Jones et al, 2013) to explore connectedness, and on- and off-line bullying behaviours using a behaviour-specific approach. Behaviour-specific questioning effectively reduces researchers' imposed perceptions of bullying, allowing for more objectivity, authentic retrieval of actual experiences, and consensus in reliably identifying specific behaviours of concern (Modecki et, 2013; Dehue, 2013).

The UISBS Survey (Rose, 2010) focuses on characteristics such as aggression, positive attitudes towards violence, connectedness, and bullying perpetration and victimization as it relates to individuals' unique SEN characteristics. Rose (2010) used this survey to assess the behavioral and social connectedness risk factors that are most predictive of involvement in bullying and victimization among individuals with SEN. The YISS Survey (Jones et al, 2013) gathers information about face-to-face and cyberbullying experiences and connectedness, extending these variables to ask specific questions about time spent online. The UISBS and YISS Surveys were not administered in their entirety due to school day time constraints and concerns that using both of these measures would be too long for our sample, many of whom have difficulty sustaining attention and motivation. Although the UISBS and YISS have been used in the US rather than Canada, it was felt that North American youth share many similarities and that questions from these surveys would be relevant for a Canadian sample.

Of the 57-items that comprise the PECS Survey, 52 items were drawn from the UISBS and YISS surveys. Forty items out of 282 were drawn from the UISBS (Rose et al, 2012), and 12 items out of 392 were drawn from the YISS (Jones et al, 2013). Minor

modifications were made to the wording of questions drawn from the UISBS and YISS, to simplify them for readability while retaining their core meaning. Five additional questions were created for the PECS, pertaining to demographic information (i.e. age, gender, grade) and type of school programming (inclusive versus segregated programming).

University of Illinois and Wellesley College: Student Behaviour Survey. The UISBS is focused on aggression, fight behaviours, off-and on-line bullying involvement, victimization, sexual harassment/exploitation, delinquency, positive attitudes towards bullying, social connectedness, and empathy (Rose, 2010). Items that were selected from the UISBS included those that were specific to bullying and victimization behaviours, aggression/fight behaviours, and connectedness with/social support from teachers, family and peers. Validity of the UISBS has been supported through exploratory and confirmatory factor analyses (Rose, 2010; Rose et al, 2012). Internal consistency estimates for the UISBS, based on Cronbach's alpha coefficients, were identified for bullying behaviours (α ranged from .81 - .88), victimization behaviours (α ranged from .85 - .93), fight behaviours ($\alpha = .70$), anger ($\alpha = .81$), connections to school ($\alpha = .79$), connections to family ($\alpha = .82$), and connections to friends ($\alpha = .87$) across a 3-year study (Rose, 2010).

Youth Internet Safety Study. The YISS is a "structured telephone questionnaire designed to quantify youth experiences with unwanted sexual solicitations, harassment, and unwanted exposure to pornography," but also targets internet use characteristics (i.e., time online, gender differences, specific online site involvement) and social connectedness information. The 12 items drawn from the YISS were those that pertain to

time spent online, cyberbullying and cybervictimization experiences, and social connectedness.

Peer Experiences and Connectedness Study (PECS) Survey. A five-point Likert scale was utilized on the PECS Survey, with potential response options including: Never (Never in the Past Year), Rarely (A Couple of Times a Year), Sometimes (A Couple of Times a Month), Often (A Couple of Times a Week, or Weekly), and Almost Always (Almost Everyday). PECS Likert scale anchors were modified from the original UISBS anchors of "Not Sure, Never, Rarely, Occasionally, Often," to make the wording slightly more specific for our sample. For the same reasons, the PECS Likert scale replaced the questions-specific variable indicators used by the YISS, following Muis, Winne, and Edward's (2009) advice that anchoring each option with a descriptor increases accuracy, interpretive consistency, and reduces confusion. The PECS Survey scales are as follows:

Scale 1: Cyberbullying behaviours. This scale measures adolescents' cyberbullying behaviours and involvement. Individually, each question asks about cyberbullying behaviours (see Appendix M for specific scale items drawn from the UISBS and YISS surveys and modified for the PECS). Collectively, this scale provides an indication of how involved each individual participant has been in cyberbullying over the past year.

Scale 2: Cybervictimization behaviours. This scale measures adolescents' cybervictimization behaviours and involvement (see Appendix M for specific scale items drawn from the UISBS and YISS surveys and modified for the PECS), with questions focused on students' cybervictimization experiences. Overall the scale provides an indication of how pervasive cybervictimization has been for each individual participant over the past year.

Scale 3: Face-to-face bullying behaviours. This scale measures adolescents' face-to-face bullying behaviours and involvement (see Appendix M for specific scale items drawn from the UISBS and YISS surveys and modified for the PECS). Individual questions ask about students' face-to-face bullying behaviours. Together, the scale gives an indication of the level of face-to-face bullying in which each individual participant has been involved over the past year.

Scale 4: Face-to-face victimization behaviours. This scale provides a measure of youths' face-to-face victimization behaviours and involvement (see Appendix M for specific scale items drawn from the UISBS and YISS surveys and modified for the PECS). Individual questions are focused on students' face-to-face victimization behaviours. Overall, the scale indicates how prevalent face-to-face victimization has been for each individual over the past year.

Scale 5 with 3 subscales: Connectedness and social support. This scale measures youths' perceptions of connectedness and social support from teachers, family and peers (see Appendix M for specific scale items drawn from the UISBS and YISS surveys and modified for the PECS). Individually, questions measure students' levels of connectedness across three domains (school, home, peer groups). The scale as a whole provides an indication of students' perceived levels of connectedness and social support in general.

Follow-up analyses suggested that the individual scales and subscales of the PECS Survey have solid internal consistency. Internal consistency estimates for the PECS Survey, based on Cronbach's alpha coefficients, were identified for face-to-face bullying behaviours scale ($\alpha = .855$), face-to-face victimization behaviours scale ($\alpha = .870$),

cyberbullying behaviours scale (α = .796), cybervictimization behaviours scale (α = .853), connectedness and social support scale (α = .852), and discrete connectedness subscales of connectedness with a teacher (α = .922), connectedness to family (α = .878), and connectedness to friends (α = .913) (See Tables 4.8, 4.9, 4.10, and 4.11 in Chapter 4 Results). In other words, the items within each individual scale hang together.

Procedures

This study was approved by the University of Victoria's Human Research Ethics Board and the SD61 and SD62 District ethics review boards. An incentive reward draw for an iPad mini was provided, with each student receiving a ballot for the draw after they had completed the survey and interview.

Power: To determine the sample size necessary, power analyses were conducted using G-power based on the analysis chosen for each research question (Faul, Erdfelder, Lang & Buchner, 2007). For Research Questions One and Two, using two one-way ANOVAs per question, with a moderate effect size (0.30, $p < .05$; Cohen, 1988), an estimated 210 participants were required (105 IBI and 105 non-designated). For Research Question Three, using multiple regressions and based on a moderate effect size (power level of 0.95 in regression), 153 participants were required for the two face-to-face regressions with seven predictors (76 IBI-designated with EBD and 76 typically developing) and 160 participants for the two cyber-focused regressions with 8 predictors (80 IBI-designated with EBD and 80 typically developing). Out of gratitude and respect for the participating schools and responding participants, all efforts were made to include every student who returned their permission forms for this study, yielding an unbalanced sample (30 IBI-designated with EBD and 144 typically developing participants).

Pilot study. A small pilot study using the PECS Survey and Interview was conducted one week prior to the main study to ensure the PECS was clear and understandable to respondents. The pilot PECS Survey was individually administered to three Grade Six students without SEN designations at a local middle school. Based on the pilot, it was determined that students of this age could understand the survey and interview questions, were able to understand and use the Likert structure, were able to sustain motivation to complete the survey and interview, and were able to complete both the survey and interview in 10-15 minutes, which was deemed a reasonable amount of time. Some questions were modified marginally to maximize item readability and comprehension.

Main study. During collection of the participant permission forms, IBI-specific designation information (indicating an EBD diagnosis) and programming (inclusive versus segregated) were collected for the EBD sample, from each school Principal or Learning Support Teacher (LST). Information gathered regarding designations other than IBI, including identification of non-EBD students, was gathered at the convenience of school Principals or LSTs, often at the end of the research within each school. Finally, the number of hours of special education support provided to each participant per day (within or outside of the classroom) was also collected from school Principals or LSTs.

The primary investigator (PI) administered each survey and interview to every student individually in a private space allocated by each school, during school hours over a one-month period (May 15-June 15). Each survey took between 15 and 30 minutes to administer. The interview took from 2 to 20 minutes to administer. There was no identifiable difference between participants with and without EBD in the duration of time

taken to complete the survey or interview. Rather, longer durations were seen in students (both EBD and non-EBD) who wanted to share more experiences.

Each student was picked up from their classroom, individually, by the PI. Participants were told that the purpose of the survey was to "explore middle school students' experiences face-to-face and online to help us understand which experiences were typical and acceptable by most students and which experiences were harmful." The same script was used with all participants. Once in the interview room, informed consent, including a discussion of confidentiality and limits to confidentiality, was obtained. The survey started with participants completing the first three demographic questions with the PI. The PI then explained the Likert scale and confirmed participants' understanding by monitoring their completion of the first two Likert questions on the PECS. After this point, students were given the option to complete the survey independently or with the support of the PI (i.e., PI reading aloud and scribing for them). Of the 144 non-EBD participants, only 2 (1%) completed the survey with investigator support. In contrast, 18 of the 30 IBI-designated participants (60%) requested investigator support. Participants were encouraged to ask questions if they required clarification. After each student completed his/her survey, a brief interview was conducted. Participation in the interview was optional, and questions were asked in an open- or closed-ended manner depending on each participant's apparent engagement and comfort. Following completion of the survey and interview, students returned to their classrooms.

Data Analysis

Data cleaning. Survey data were imported into and analyzed in the Statistical Package for Social Sciences (IBM SPSS, version 23.0). PECS Survey Likert scale

indicators were converted from descriptors to numerical values using the following scale: Never = 1, Rarely = 2, Sometimes = 3, Often = 4, and Almost Always = 5. Less than 5% of the survey data was missing across all variables, which is not significant with respect to study analyses or results (Howell, 2007). Finally, each scale was summed and internal consistency (reliability) estimates were calculated (Muijs, 2011; Morgan, Leech, Gloeckner, & Barrett, 2011; Field, 2005).

Interview responses were transcribed verbatim, and then were organized by each question and summarized in Word using a table format. In preparation for analysis of interview results, separate tables were created for EBD and non-EBD participants.

Data analysis. The data was analyzed in four phases with one quantitative data set and one qualitative data set. The first three phases focused on quantitative data derived from the PECS Survey. The final phase analyzed the qualitative PECS Interview data.

First, SPSS was used to run descriptive analyses. Data was screened for outliers, normality, linearity, multi-collinearity, variable types, homoscedasticity, independent errors, independence, prior to using ANOVAs or Regressions. Correlations, means, standard deviations (SD) were calculated for all variables, and Cronbach's alpha (α) was used to examine the internal consistency of each of the components (scales, subscales and variables).

In the second phase, the first and second research questions, concerning whether face-to-face and cyber-bullying and -victimization experiences were higher among youth with EBD when compared with non-EBD youth, were analyzed. This was done using two one-way ANOVAs to investigate mean differences between groups.

The third phase analyzed the third research question, which focused on specific protective and risk factors that may contribute to bullying and victimization experiences. This was explored using a series of sequential multiple regressions. These regressions examined the proportion of variance in face-to-face and cyber-bullying and -victimization involvement that is explained by a group of risk/protective factors: connectedness (peer, teacher, familial), programming type (partial inclusive versus full inclusion, and full or partial inclusion versus fully segregated programming), time online (limited versus pervasive), designation (IBI-designated versus non-designated) and gender (male versus female).

Finally, the fourth phase was devoted to interview analyses. Interview responses were summarized and examined for the similarities and differences. Trends were extracted, to inform the main research questions with anecdotal experiences. Prevalence of participants' involvement and/or experiences was numerically tabulated in order to draw comparisons between qualitative interview and quantitative survey responses. Participant responses lending depth or specific understanding to adolescents' experiences were isolated to enrich and supplement quantitative findings.

Chapter 4

Results

Results are organized by each of the three primary hypotheses. Nested within each section are: 1) descriptive statistics, correlations, and reliability coefficients pertaining to the PECS; 2) quantitative results; and 3) qualitative results to clarify and supplement the quantitative analyses.

Hypothesis 1: Face-to-face bullying and victimization experiences will be higher among adolescents with EBD compared to typically developing (non-EBD) adolescents.

Internal consistency estimates for the PECS survey face-to-face bullying and victimization behaviours scales. This hypothesis was investigated using the face-to-face bullying and victimization behaviour scale on the PECS, which consists of questions about face-to-face bullying and victimization behaviours, fight behaviours and anger/aggression, parceled together to identify levels of bullying behaviours and involvement. Reliability estimates for the face-to-face bullying scale (α = .855) and face-to-face victimization scales (α = .870) indicated a high degree of internal consistency. While Kline (1999) suggests that .8 is an appropriately reliable value of Cronbach's α, reliability values below .7 are considered to be reasonable when dealing with psychological constructs (Field, 2005). Bivariate correlations for all variables and reliability coefficients are reported in Tables 10, 11, 12, and 13. Means, Standard Deviations, and Internal Consistency for the PECS scales specific to face-to-face bullying and victimization behaviours are outlined in Table 3.

Table 3

Mean, Standard Deviations, and Internal Consistency of the PECS Face-to-Face Bullying and Victimization Behaviours Scales

PECS Scale	N of Items	N	Mean	SD	α
Face-to-Face Bullying Behaviours Scale	18	163	26.88	7.687	.855
Face-to-Face Victimization Behaviours Scale	8	164	14.84	5.827	.870

One-Way ANOVA 1. Two one-way Analysis of Variances (ANOVAs) were run to investigate whether bullying behaviours and victimization significantly differed among adolescents with and without EBD. Prior to running the ANOVA's, participants were split into two groups, adolescents with EBD and non-EBD adolescents. Data was analyzed to determine whether the key assumptions of ANOVA were met (normality, homogeneity of variance, interval data, and independence). Histograms were analyzed to examine normality. Scores on the face-to-face bullying and victimization scales, computed using traditional sums of responses, were not normally distributed, violating the assumption of normality. However, it was not anticipated that bullying and victimization levels would be normally distributed, but rather experienced by a small subset of the population. Specific to the violation to homogeneity of variance, the inequality in-group sizes between the EBD group (EBD = 30) and non-EBD group (non-EBD = 133) was substantial. To correct for this, the Brown & Forsythe (1974) *F*-ratio was used, which weights the group variances by the inverse of their sample sizes instead of by their actual sample sizes, reducing the impact of inconsistent sample sizes (Field, 2005). Still, the impact of the inconsistent sample sizes was identified as significant. Independence was not met, since participants were independently separated into two

groups (EBD and non-EBD), but were drawn from the same nine schools. Those within the same schools may be considered to be influenced by this environment, and therefore, may be more similar in their behaviours and perspectives than authentically independent of each other. The requirement for interval data was met since distances between points on the PECS survey followed the same Likert scale throughout 53 questions. Although the data violated three of the four ANOVA assumptions, ANOVA is relatively robust to violations of these assumptions (Field, 2005). Nevertheless, this will be taken into account as a limitation when results are interpreted. Descriptive statistics pertaining to the dependent variables are presented in Table 4 and results from the ANOVAs are presented in Table 5.

Table 4

Means and Standard Deviations Comparing Face-to-Face Bullying and Victimization Involvement Among Adolescents with and without EBD

	Face-to-Face Bullying			Face-to-Face Victimization		
Designation	**N**	**M**	**SD**	**N**	**M**	**SD**
IBI-designated (EBD)	30	31.93	9.780	30	19.00	7.264
Non-designated (Typical, Non-EBD)	133	25.74	6.664	134	13.90	5.031
Total	163	26.88	7.687	164	14.83	5.827

Table 5

One-Way ANOVAs Summary Table Comparing Face-to-Face Bullying and Victimization Involvement Among Adolescents with and without EBD

	Sum of Squares	*Df*	Mean of Squares	*F*	*P*
F2F Bullying					
Between groups	937.61	1	937.61	17.48	.001
Within groups	8635.18	161	53.64		
Total	9572.76	162			
F2F Victimization					
Between groups	638.682	1	638.682	21.13	.001
Within groups	4896.54	162	30.23		
Total	5535.22	163			

A statistically significant difference was found between EBD adolescents and non-EBD adolescents specific to experiences of face-to-face bullying F (1, 161) = 17.48, p = .001 and face-to-face victimization F (1, 162) = 21.13, p = .001. The mean level of face-to-face bullying involvement was significantly higher for students with EBD (Mean = 31.93, SD = 9.780) than for non-EBD students (Mean = 25.74, SD = 6.664). A similar pattern was seen for face-to-face victimization in that students with EBD were significantly more likely to be victimized (Mean = 19.00, SD = 7.264) than non-EBD adolescents (Mean = 13.90, SD = 5.031). Although differences in levels of bullying and victimization were significant between these two groups, the effect sizes were relatively small (R = .097) (Cohen, 1988).

Qualitative trends comparing face-to-face bullying and victimization participants. Interview responses about face-to-face bullying and victimization were consistent with the quantitative data gathered from surveys. Interviews indicated that

adolescents with EBD were more likely to report being involved in face-to-face bullying experiences than those without EBD. Interview results also informed how these face-to-face bullying experiences occur and how they may be perceived differently in adolescents with and without EBD. Of the 127 interview participants, 61 (83% of EBD participants and 37% of non-EBD participants) reported having experienced face-to-face bullying and/or –victimization within the last year. In addition, the quality of face-to-face bullying and victimization interview responses differed between groups.

While 83% of adolescents with EBD reported having been bullied or victimized, face-to-face, the majority of EBD adolescents (70%) interviewed identified themselves as having experienced *both* face-to-face bullying and face-to-face victimization. Overwhelmingly, 76% of EBD respondents saw themselves as engaging in bullying behaviours as a defensive reaction to being first victimized. EBD participants viewed themselves as having been consistently victimized through: 1) exclusion, 2) physical attacks, and 3) verbal assaults, to which they responded with physically or verbally aggressive behaviours. Of the 70% of EBD adolescents who admitted to engaging in face-to-face bullying, their perceived reasons for using bullying behaviours were explained as: 1) power- or popularity-seeking; 2) retaliation; 3) weak self-regulation skills; and 4) trauma-informed responses. Five of the EBD respondents were aware of the triggers for their bullying behaviours (i.e. rape, parental violence, parental abandonment and incarceration, teasing, annoying behaviours). Five EBD respondents acknowledged having weak self-regulation skills (i.e. *"I'm not good at controlling my anger, so kids tease me to see me get angry." "If they had to deal with what I'm dealing with, do you think they could hold it together all the time?!"*). Eight EBD respondents

disclosed a history of family trauma, four of whom directly linked these experiences to current bullying behaviours (i.e. triggers, learned responses of violence, etc.). Twelve EBD participants, two of whom also disclosed family trauma, described early traumatic experiences related to peer victimization.

Non-EBD adolescents responded differently when asked about their involvement in face-to-face bullying and victimization. Unlike their peers with EBD, only 7% of non-EBD participants reported experiences with *both* face-to-face bullying and victimization. When responses of isolated incidents of rudeness, misunderstandings, or observed peer experiences were excluded 17% of non-EBD participants reported experiencing face-to-face victimization. They perceived the causes of their victimization experiences as: 1) apparent differences, and 2) "mean behaviours" by peers and adults. Apparent differences were clarified as popularity, clothing or make-up choices, behaviours (i.e. *"She just doesn't act like everyone else." "I had trouble expressing myself."*), and physical size (i.e. height or weight). Reports relating causality to "mean" peers suggested these students lacked empathy and enacted the same bullying behaviours on everyone, pervasively. When isolated incidents were excluded, only 6% of non-EBD youth responded as having engaged in face-to-face bullying behaviours. Non-EBD youth who felt they may have been perceived as bullying others, offered 4 ways this occurred: 1) exclusion, 2) reactive (bully-victim), 3) joining friends who had initiated the verbal bullying, and 4) misunderstood sarcasm or joking. Reactive bullying was the most common response (i.e. *"Someone from another group bullies someone from our group, so we get back at them." "They started it but I was like that back to them."*). Only one

individual from the non-EBD sample acknowledged that he "sometimes says things that get people mad and they come after us."

One noticeable difference between EBD and non-EBD adolescent responses was in relation to identifying perpetrators. EBD respondents often reported being bullied pervasively and by multiple individuals. In contrast, non-EBD adolescents identified specific perpetrators: 1) popular peers, 2) unpopular peers who were always in trouble, 3) friends within a friend group, and 4) teachers. Non-EBD participants specified that most of the bullying was perpetrated by either popular peers or unpopular peers with anti-social behaviours. Those non-EBD adolescents who reported victimization by popular peers noted it was enacted physically (i.e. pushing/shouldering them out of the way), verbally (i.e. *"They sit [in a common area] and make fun of everyone outside of their group for every little thing; how they walk, what they wear." "The show-off's need to push someone down." "They tell me to drink bleach or go KMS – kill myself."), or through exclusion (i.e. "They pushed me out of their group because I wasn't popular enough." "Those kids had money and I didn't. They relied on what they had. It's not about the things you have. Here [different school], we rely on friendship and community."*). When the unpopular, "troubling-making" peers were identified by non-EBD as bullying, they were identified as enacting repeated aggressive acts physically (i.e. *"very physical," "shouldering me out of the way"*) and verbally (i.e. name-calling, rude, *"This girl always says things before she thinks, and she keeps doing it, but she doesn't seem to get that its her the teacher is talking about when the teacher talks to us about her bullying [behaviours]."*). Interestingly non-EBD adolescents reported that the unpopular bullies did not see themselves as bullies but rather as victims *("A girl said she was*

bullied at her last school, but she came to our school and she is the bully."), similar to EBD adolescents' self-perceptions .

While qualitative and quantitative results agree that adolescents with EBD are over-represented in the face-to-face bullying dynamic compared with their non-EBD peers, the details of their anecdotal experiences and perceptions of these experiences also differed. EBD participants reported comparatively more experiences of intermixed bullying and victimization, and shared these experiences with descriptive honesty and intense, emotional justifications for their bullying behaviours. Interview responses of EBD adolescents often differed in intensity, prevalence, or entirely contradicted, their more conservative survey responses. On the contrary, non-EBD participants responded as playing a minor role in perpetuating bullying behaviours or as being involved as victims, and responded in a similar manner to both survey and interview.

Hypothesis 2: Cyberbullying and cybervictimization will be higher among adolescents with EBD compared to typically developing (non-EBD) adolescents.

Internal consistency estimates for the PECS survey cyberbullying and cybervictimization behaviours scales. The cyberbullying and cybervictimization behaviours scales on the PECS survey consisted of questions about cyberbullying and cybervictimization on social media and gaming sites, Youtube, texts and email, specific to targeted and intentionally hurtful behaviours. Reliability estimates for the cyberbullying scale (α = .796) and cybervictimization scales (α = .853) indicated a high degree of internal consistency. Bivariate correlations for cyberbullying and cybervictimization variables and reliability coefficients are reported in Tables 12 and 13.

Means, Standard Deviations, and Internal Consistency for the PECS survey scales specific to cyberbullying and cybervictimization behaviours are outlined in Table 6.

Table 6

Mean, Standard Deviations, and Internal Consistency of the PECS Cyberbullying and Cybervictimization Behaviours Scales

PECS Scale	N of Items	N	Mean	SD	α
Cyberbullying Behaviours Scale	8	162	10.91	3.474	.796
Cybervictimization Behaviours Scale	8	163	12.67	4.913	.853

One-Way ANOVA 2. Hypothesis two was analyzed using two one-way ANOVAs. Assumptions tested for all four one-way ANOVAs are indicated above. Descriptive statistics pertaining to the dependent variables are presented in Table 7 and results from the ANOVAs are presented in Table 8.

Table 7

Means and Standard Deviations Comparing Cyberbullying and Cybervictimization Involvement Among Adolescents with and without EBD

	Cyberbullying			Cybervictimization		
Designation	N	M	SD	N	M	SD
IBI-designated (EBD)	30	12.80	4.342	30	14.80	6.446
Non-designated (Non-EBD)	132	10.48	3.107	133	12.20	4.386
Total	162	10.91	3.474	163	12.67	4.913

Table 8

One-Way ANOVA Summary Table Comparing Cyberbullying and Cybervictimization Involvement Among Adolescents with and without EBD

	Sum of Squares	***Df***	**Mean of Squares**	***F***	***P***
Cyberbullying					
Between groups	131.020	1	131.020	11.571	.001
Within groups	1811.770	160	11.324		
Total	1942.790	161			
Cybervictimization					
Between groups	166.050	1	166.050	7.141	.008
Within groups	3743.717	161	23.253		
Total	3909.767	162			

A statistically significant difference was found between adolescents with EBD and non-EBD adolescents specific to experiences of cyberbullying, F (1, 160) = 11.571, p = .001, and cyber- victimization, F (1, 161) = 7.141, p = .008. The mean level of cyberbullying involvement was significantly higher for students with EBD (Mean = 12.80, SD = 4.342) than non-EBD (Mean = 10.48, SD = 3.107). A similar pattern was seen for cybervictimization involvement in that students with EBD were significantly more likely to report being victimized (Mean = 14.80, SD = 6.446) than their non-EBD counterparts (Mean = 12.20, SD = 4.386). Although levels of cyberbullying and cybervictimization were significantly different between these two groups, the effect sizes were relatively small ($p < .05$, R = .04 for cyberbullying and R = .07 for cybervictimization) (Cohen, 1988).

Qualitative trends comparing cyberbullying and cybervictimization participants. Interview responses about cyberbullying and cybervictimization were

consistent with survey data. While adolescents with EBD were more likely experience troubling involvement in cyberbullying and victimization than non-EBD adolescents, they appear to do so with less prevalence online than in person. Of the 127 interview participants, 57 (63% of participants with EBD and 34% of non-EBD participants) reported cyberbullying and/or cybervictimization experiences. To examine these perspectives, the following section will summarize cyberbullying and cybervictimization experiences for youth with EBD and non-EBD youth, including similarities and differences between group reports.

Although 63% of adolescents with EBD responded as being involved in cyberbullying and/or cybervictimization, many did not identify themselves as having participated in *both* cyberbullying and cybervictimization, unlike in face-to-face transgressions. Forty-three percent of adolescents with EBD reported perpetuating cyberbullying, and 43% considered themselves to have experienced cybervictimization. Of those with EBD who had participated in cyberbullying, they explained their behaviours as occurring due to: 1) retaliation, 2) an exhilarating part of the first-person shooter game environment, and 3) a response to frustration in the first-person shooter game environment. EBD youth who experienced cybervictimization reported struggling to deal with: 1) hurtful comments people would not say in person, 2) threats (i.e. *"Go KYS – kill yourself." "I'm going to kill you."*), 3) hacking (i.e. *"He DOSed me, hacked into my computer and stole stuff from my game, and sold my address to pedofiles."*), and 4) fighting in chatrooms *("I get into more fights online than in person."*). Only 23% of EBD participants perceived themselves as involved in *both* cyberbullying and cybervictimization. The majority of respondents with EBD who experienced either

cybervictimization, or *both* cyberbullying and cybervictimization, reported genuine confusion, anger and/or anxiety about their bullying experiences online.

Non-EBD youth reported substantially less involvement (43%) in cyberbullying and/or cybervictimization than those with EBD. Cyberbully-victimization (i.e. back-and-forth online bullying and retaliation) was a more common experience among EBD than non-EBD participants, with only 11% of non-EBD reporting engagement in *both* cyberbullying and cybervictimization. Cyberbullying behaviours were reported by 18% of non-EBD youth and 29% had experienced cybervictimization. Non-EBD youth who reported engaging in cyberbullying behaviours, explained this as occurring, in order of more to less common, due to: 1) in-friend group negative teasing (i.e. *"Even if you don't mean it in a mean way, it can be taken that way." "My friends and I have this relationship where we tease, 'oh I hate you' and 'you're so dumb.'"*), 2) mean or embarrassing posts to get laughs (i.e. *"I post a picture and comment mean things, but once they've seen it, I delete it." "We snapchat pictures of people when they're not looking and post them with a snarky comment."*), 3) retaliation (ie. *"I do the same thing others do to me."*), and 4) first-person shooter gaming. Cybervictimization among the non-EBD respondents was described as being experienced through: 1) public peer humiliation through social media posts (i.e. *"There was a hate account against me and my two BFF's on Instagram." "I posted a photo of myself smiling and got all sorts of rude comments."*), 2) private negative peer attacks, some of which are cloaked in humour (i.e. *"The other person thought it was a joke but it didn't feel funny to me."*), and 3) first-person shooter games, *"where most people will say things they'd never say in person because they are hidden behind a screen."*

Where and how cyberbullying and victimization experiences occurred was reported similarly among EBD and non-EBD youth. Cyber -bullying and –victimization happened in those contexts where youth spent most of their online time: social media (i.e. Instagram, Snapchat, skype chatrooms, etc.), YouTube, text, and online gaming (i.e. first-person shooter games). Most EBD and non-EBD respondents reported that when cyberbully-victimization occurs on social media, YouTube and texts, it happens when individuals: 1) post pictures or videos with comments, or 2) participate in chatrooms. Conversely, online gaming is known for its "competitive" environment, where everyone "trash talks" to some degree. However, non-EBD participants were much more aware and uncomfortable when typical competitive gaming banter crossed acceptable lines into bullying territory. Unique to the cyber environment, most EBD and non-EBD youth were less affected by the cross interaction (cyberbully-victimization) when it was with someone they did not know than when these interactions occurred with people with whom they have in-person contact (i.e. *"I don't care what people say that I don't have real contact with." "If I don't know them, its not as close to home."*). Online venues (i.e. social media, YouTube, text, gaming) were collectively recognized by both youth with and without EBD as a communication mode designed for impulsive initiation and for anonymity *("Instagram works on impulse." "Most people say things online or in texts that they would never say in person because they're behind a protective screen." "Saying them [comebacks] face-to-face is weird, but online you can go crazy [because they can't touch you]; I keep going at them until they leave the game."*).

Hypothesis 3: Risk/protective factors, including connectedness, time online, gender, designation and type of programming will influence the amount of face-to-face and cyberbullying and victimization youth with and without EBD experience. To examine Hypothesis Three, a series of linear regressions were conducted. The dependent variables of face-to-face bullying behaviours, face-to-face victimization involvement, cyberbullying behaviours and cybervictimization involvement were regressed on the independent variables of connectedness (teacher, familial, peer), programming (full inclusion, partial inclusion, segregation), designation (IBI-designated versus non-designated), gender (male versus female), and time online (specific only to cyberbullying and cybervictimization).

Internal consistency estimates for the 5 PECS survey scales and 3 subscales. Hypothesis three was addressed through evaluating responses to the face-to-face bullying behaviours, face-or-face victimization, cyberbullying behaviours, cybervictimization, and connectedness/social support scales. The connectedness/social support scale consisted of 3 connectedness subscales (connectedness with teacher, connectedness with family, connectedness with friends). Also included were 4 additional discrete questions about gender (male or female), hours online (0-2, 2-4, 4-6, 6-8, and 8+ per day), segregated programming (separate school district behaviour program), and inclusive programming (full inclusion versus variable partial inclusion with pull-out programming). Internal consistency coefficients for the face-to-face bullying behaviours scale ($\alpha = .855$), face-or-face victimization behaviours scale ($\alpha = .870$), cyberbullying behaviours scale ($\alpha = .796$), cybervictimization behaviours scale ($\alpha = .853$), connectedness and social support scale ($\alpha = .852$), and discrete connectedness subscales of connectedness with teacher ($\alpha = .922$),

connectedness with family (α = .878), and connectedness with friends (α = .913), were high. Bivariate correlations for face-to-face and cyberbullying and cybervictimization were calculated for the group as a whole (EBD and non-EBD) and are reported below in Tables 10, 11, 12, and 13, while Means, Standard Deviations and reliability coefficients relative to the 5th PECS scale, Connectedness and Social Support scale and the discrete connectedness subscales that make up this scale (Connectedness with Teachers, Connectedness with Family and Connectedness with Friends) are reported in Table 9.

Table 9

Mean, Standard Deviations, and Internal Consistency of the PECS Connectedness and Social Support Scale, and Discrete Connectedness Subscales

PECS Scale	N of Items	N	Mean	SD	α
Connectedness: School, Family, Peers Scale	9	164	34.53	7.273	.852
Discrete School Connectedness Scale	3	164	10.10	3.788	.922
Discrete Family Connectedness Scale	3	164	12.79	2.755	.878
Discrete Peer Connectedness Scale	3	164	11.64	3.269	.913

Table 10

Inter-correlations for Face-to-Face Bullying Involvement and Predictor Variables (N=163)

	F2F Bullying*	Connections to School	Connections to Family	Connections to Friends	Full/Partial Inclusive Programming	Segregated Behaviour Program	IBI Designation	Gender
F2F Bullying Involvement	____							
Connections to School	-.242	____						
Connections to Family	**-.352**	.400	____					
Connections to Friends	**-.035**	.236	.327	____				
Full/Partial Inclusive Programming	.007	.100	.060	.001	____			
Segregated Behaviour Program	**.268**	-.039	.002	-.144	.008	____		
IBI Designation	**.313**	-.062	-.226	-.413	-.021	.446	____	
Gender	-.091	.100	-.036	.201	.070	-.1008	-.229	____

*Significance $p<0.05$

Table 11

Inter-correlations for Face-to-Face Victimization Involvement and Predictors Variables (N=164)

	F2F Victimization*	Connections to School	Connections to Family	Connections to Friends	Full/Partial Inclusive Programming	Segregated Behaviour Program	IBI Designation	Gender
F2F Victimization Involvement	____							
Connections to School	**-.270**	____						
Connections to Family	-.310	.410	____					
Connections to Friends	-.249	.237	.325	____				
Full/Partial Inclusive Programming	-.059	.100	.060	.002	____			
Segregated Behaviour Program	.178	-.037	.005	-.143	.008	____		
IBI Designation	**.340**	-.058	-.217	-.412	-.021	.446	____	
Gender	-.010	.092	-.047	.199	.069	-.109	-.230	_____

*Significance $p<0.05$

Table 12

Inter-correlations for Cyberbullying Involvement and Predictor Variables (N=156)

	Cyber-bullying*	Connections to School	Connections to Family	Connections to Friends	Full/Partial Inclusive Programming	Segregated Behaviour Program	IBI Designation	Gender	Hours Online
Cyber-bullying Involvement	____								
Connections to School	-.195	____							
Connections to Family	-.248	.410	____						
Connections to Friends	**.006**	.235	.343	____					
Full/Partial Inclusive Programming	-.015	.101	.060	.000	____				
Segregated Behaviour Program	**-.038**	-.038	-.004	-.150	.007	____			
IBI Designation	.225	-.038	-.181	-.431	-.020	.463	____		
Gender	**-.154**	.083	-.085	.200	.071	-.113	-.243	----	
Hours Online	**.409**	-.197	-.357	-.074	-.021	.043	.192	-.010	----

*Significance $p<0.05$

Table 13

Inter-correlations for Cybervictimization Involvement and Predictor Variables (N=156)

	Cyber-victimization*	Connections to School	Connections to Family	Connections to Friends	Full/Partial Inclusive Programming	Segregated Behaviour Program	IBI Designation	Gender	Hours Online
Cyber-victimization Involvement	____								
Connections to School	-.257	____							
Connections to Family	**-.314**	.394	____						
Connections to Friends	-.040	.233	.345	____					
Full/Partial Inclusive Programming	-.071	.101	.060	.000	____				
Segregated Behaviour Program	.184	-.040	-.006	-.148	.007	____			
IBI Designation	.181	-.043	-.186	-.426	-.020	.464	____		
Gender	.032	.090	-.064	.209	.072	-.108	-.233	----	
Hours Online	**.368**	-.188	-.327	-.071	-.020	.046	.198	-.014	----

*Significance $p<0.05$

Regression. To determine whether regression assumptions were met, data was screened for outliers, variable types, homoscedasticity, independent errors, independence, normality, linearity, and multi-collinearity. Boxplots demonstrated that regression assumptions were met for outliers. Residuals were plotted against the independent variables to identify whether regression assumptions were met for homoscedasticity, independent errors, and linearity. Assumptions related to multi-collinearity were met, as demonstrated in the correlation matrices (see Tables 10, 11, 12, and 13). Regression assumptions for variable type were met due to use of the 5 Likert scale intervals throughout all 53 questions of the survey, which yielded the full range of responses from

1 to 5 and met the criteria for interval data. In contrast, the assumptions of normality and independence of observations were not met. Specifically, using traditional sums of responses, the connectedness scale was the only normally distributed scale, as evident through skewness and kurtosis values within acceptable ranges. The other scales (face-to-face bullying, face-to-face victimization, and cyberbullying, cybervictimization) were not normally distributed. As discussed above, most participants were not involved in the bullying dynamic, which leads to a skewed distribution, so in this case a non-normal distribution is not unexpected. Normal distribution of these scales would suggest that face-to-face and cyberbullying and cybervictimization are normatively experienced by most adolescents, which they are thankfully not. The assumption of independence was considered violated since, for the same reasons as described for the ANOVA analyses above.

In the following section, the final research question was analyzed using four linear regressions. Results from the regression analyses follow the order of the four dependent variables on which the final research question is based.

Model 1: Face-to-face bullying involvement. A simultaneous linear regression was used to identify the key predictors of face-to-face bullying behaviours. Face-to-face bullying behaviour was regressed onto the predictor variables of connectedness (connections to peers, school adults, and family), IBI designation (EBD diagnosed), programming (inclusion versus segregated), and gender. The overall regression was statistically significant, F (7,155) = 8.21, p< .001, with an adjusted R^2 value of .237, indicating that approximately 24% of the variance in face-to-face bullying involvement was explained by a model that included all of these variables. According to Cohen

(1988), this a small effect size. Beta coefficients are presented in Table 14. Note that Connectedness to Family, Connectedness to Friends, a Designation of IBI, and Segregated Programming significantly predicted face-to-face bullying involvement when all other variables were included in the model. Within this model, connectedness to Family and Friends and IBI Designation were the strongest predictors of Face-to-Face Bullying Behaviour. Connectedness to Teachers, Gender, and Inclusive Programming were not identified as significant predictors of face-to-face bullying when all other variables were included in the model.

Table 14

Simultaneous Multiple Regression Analysis Summary for Connectedness to School, Connectedness to Family, Connectedness to Friends, Partially Segregated Programming, Completely Segregated Programming, IBI Designation, and Gender Predicting Face-to-Face Bullying Involvement (N=163)

Predictors	**B**	**Std. Error**	**Beta**	***T***	***p*[a]**
Connections to School	-.295	.156	-.145	-1.891	.060
Connections to Family	-.920	.226	-.326	-4.079	**.000**
Connections to Friends	.567	.187	.242	3.033	**.003**
Partial or Full Inclusive Programming	.048	.069	.049	.705	.482
Segregated Behaviour Program	7.035	2.926	.186	2.404	**.017**
IBI Designation	4.603	1.701	.233	2.706	**.008**
Gender	-1.029	1.111	-.067	-.926	.356

[a] Significance $p<0.05$

Model 2: Face-to-face victimization experiences. A simultaneous linear regression was used to identify the key predictors of face-to-face victimization. Face-to-face victimization was regressed onto the predictor variables of connectedness

(connections to peers, teachers, and family), IBI designation (EBD-diagnosed), programming (inclusion versus segregated), and gender. The overall regression was statistically significant, F (7,156) = 5.977, $p < .001$, with an adjusted R^2 value of .176 indicating that approximately 18% of the variance in face-to-face victimization was explained by a model including all of these variables. According to Cohen (1988), this a small effect. Beta coefficients are presented in Table 15. Note that a Designation of IBI and Connectedness to Teachers significantly predicted face-to-face victimization when all other variables are included in the model. Based on this model, Connectedness to Family and Friends, Gender, Inclusive Programming (partial or full) and Segregated Programming were not significant predictors of face-to-face victimization, when all other variables were included in the model. It should be noted that Connectedness to family was trending toward significance.

Table 15

Simultaneous Multiple Regression Analysis Summary for Connectedness to School, Connectedness to Family, Connectedness to Friends, Partially Segregated Programming, Completely Segregated Programming, IBI Designation, and Gender Predicting Face-to-Face Victimization Involvement (N=164)

Variable	B	Std. Error	Beta	*T*	*p*[a]
Connections to School	-.276	.123	-.180	-2.251	**.026**
Connections to Family	-.330	.176	-.156	-.1873	.063
Connections to Friends	-.096	.147	-.054	-.650	.517
Partial or Full Inclusive Programming	-.024	.054	-.032	-.451	.652
Segregated Behaviour Program	1.543	2.306	.054	.669	.504
IBI Designation	4.011	1.339	.267	2.996	**.003**
Gender	.925	.874	.079	1.058	.291

[a] Significance $p<0.05$

Qualitative trends in face-to-face bullying and victimization specific to risk and protective factors. Interview results are consistent with the survey data in identifying face-to-face bullying and victimization as influenced by EBD diagnosis, segregated programming, and connectedness. During interviews, another risk factor that was not asked about in survey questions, arose – trauma.

In the EBD sample, characteristics of their designation, including social and self-regulation deficits and comorbid learning problems, were reported to increase risk of experiencing face-to-face-bullying and victimization. EBD youth demonstrated limited social insight/empathy and social awareness when they discussed being empowered by the fear that face-to-face bullying instills in others (i.e. *" People I'm bitching at are afraid of me and don't talk crap about me." "I don't remember all of the kids I trash*

talk."), saw bullying behaviours as a way to gain control (i.e. *"I gain friends this way. I bully the bullies. I'm like the anti-bully bully." "I get them back 4 times as hard." "I never start things but I'm really good at finishing things."*), or lacked the social awareness to see their role in their own victimization *(i.e. "When I pick on them, it's usually because they did something to me. They say rude or mean things and then I get mad; haven't done anything to start it, not really, not a lot. They always start everything." "I try to use my words, but if they won't stop, I show them I'm not afraid and I hit back." "If they're really bothering me and getting me into lots of trouble…I get into lots of fights." "Too many things I say annoy them." "They say I'm annoying, but I'm just trying to play." "They lie about things I did [say its worse that it was] to get me in trouble." "They excluded me so I fought back." "They just started fights with me for no reason, and I was just defending myself.").* While some youth demonstrated insight into their inability to self-regulate their emotions *(i.e. "I'm different when I'm in an angry mood. I don't know what makes me angry. It just comes out whenever and it comes out fast." "Kids try to annoy me and I have anger issues.")* others did not *(i.e. "I don't think I embarrass kids because I laugh when others say the same things to me. I don't think about what they feel because you can't know what they feel.").*

Learning difficulties are one of many commonly co-occurring diagnoses associated with EBD. Seven of the EBD participants had dual designations of EBD and a Learning Disability, and this surfaced during interviews as a risk factor for face-to-face bullying and victimization involvement. One student admitted struggling in school early on and being bullied for his inability to write, which intensified feelings of anger and aggression, and depleted his self-confidence. Confidence of many of the EBD

participants appeared low as conveyed through their interview responses and body language. The request of 18 out of 30 of the EBD participants that the PI complete (read aloud and scribe) their survey with them was potentially indicative of low academic confidence, learning difficulties, struggles with attention or motivation, or their desire for connection. These youth appeared eager to talk and discuss their experiences throughout the survey process as well as during the interview.

Segregation is a risk factor associated with an EBD diagnosis, and appeared to magnify externalized behaviours and experiences of peer abuse in the form of daily bullying and victimization, both physically and verbally. EBD youth in the segregated program demonstrated lower social awareness, social skills, empathy, and self-regulation skills during the interview compared to their non-EBD peers and EBD-youth in more inclusive learning environments. It is difficult to know whether these youth were segregated as a result of having more severe behaviours in the first place, or whether time spent in the segregated program with severe EBD peers increased negative social perceptions and behaviours.

The only unexpected risk factor identified by participants with EBD compared to their non-EBD peers was the disclosure of extreme trauma. Eighteen of the EBD participants (60%) disclosed trauma before middle school as accounting for their misunderstood feelings and actions. Eight of the EBD respondents (27%) disclosed extreme family-related trauma and 12 EBD participants (40%) described experiences of traumatic victimization by peers, beginning well before middle school. Four EBD participants (13%) linked their past experiences of trauma directly to current bullying behaviours (i.e. triggers, learned responses of violence, inability to successfully self-

regulate, etc.). The traumatic experiences reported included parental abandonment, parental incarceration, childhood rape, physical and verbal abuse, neglect, devastation about placement in foster care, and early/ongoing peer victimization *("Maybe we act this way because it's what we see at home. It's how someone has acted to us. My mom is violent like I am. She gets me. But I've only seen her 3 times in my life. I was taken from her when I was 3 months old." "Not everyone has been through what I've been through. My brother raped me. When I'm upset maybe because I'm having a flashback, it puts me in a bad mood. Everyone has their own story. It's not like everyone comes from a perfect home. You don't know what happens at home. You just see what happens at school. So if I need my space to get it out of my head and you get in my face or expect me to do work, yeah, I might lose my shit. How am I supposed to hold it together all the time? Could you if that happened to you?" "I haven't always been in a behaviour program. It's only since they wouldn't let me live with my parents anymore. I had to live in a group home. I just wanted to be with my parents."*). These stories of trauma specific to the EBD group provide insight into factors that may be driving these adolescents' challenging behaviours and/or mental health concerns.

Connectedness to teachers, family and friends was the only protective factor that was shared among participants with EBD and their non-EBD peers as leading to less involvement in face-to-face bullying or victimization, and less adverse effects from these experiences. These individuals shared that their connections with family, friends, teachers or counselors are especially protective. Unfortunately, 48% of respondents with and without EBD strongly stated that they were not connected to teachers and would not turn to teachers if they had a problem or needed help.

Most often a lack of connections with positive adults or peers appeared to place adolescents with EBD at greater risk. Over half (63%) of the EBD participants interviewed could not identify who they were most connected to or would turn to when they need support, stating that that they had no one with whom they felt comfortable sharing problems. Only three of 30 EBD respondents indicated they were connected to a counselor, learning support teacher, or classroom teacher. Six EBD respondents adamantly stated that they were not connected to teachers and would never access support from them ("*They're uncomfortable; so hard to talk to. I'm worried they'll judge me or just not care because I've had that in the past." "They don't understand me. Just the way they act. They lie and they don't keep secrets." "They don't listen well, and they blow things out of control.*"). Six EBD participants indicated they could turn to family or friends (i.e. *"My dad is the only person I can trust. My mom was physically abusive but that got sorted out so we don't see her anymore."*). However, some of these relationships and role models might serve to potentially exacerbate rather than moderate risk (*i.e."My mom and my friends bitch at people who are bitching at me.").*

Results indicated that EBD adolescents were positioned at increased risk for face-to-face bullying and victimization compared to their non-EBD peers, based on identified risk and protective factors. While also feeling disconnected from teachers, many non-EBD participants reported connections with family and friends as a protective source when negative peer experiences occurred (i.*e. "I don't care if people make fun of me. I know what I am.")*. Non-EBD youth also reported less intensity in face-to-face transgressions (i.*e. "I talk behind people's backs but I feel awful about it most of the time." "I don't know how it started but when my friends start something I join in. When*

it's too mean, I say something to stop it."). Non-EBD youth were only exposed to inclusive programming with other diverse peers and not in segregated programs. In addition, only one individual in the non-EBD group shared an out-of-school traumatic life experience and five individuals in the non-EBD group shared face-to-face physical and verbal or social/relational bullying that had negatively affected them early on.

Model 3: Cyberbullying involvement. A simultaneous linear regression was used to identify the key predictors of cyberbullying involvement. Cyberbullying behaviours were regressed onto the predictor variables of connectedness (connections to peers, teachers, and family), designation (IBI designation/E BD), programming (inclusion versus segregated), time online (hours online) and gender. The overall regression was statistically significant, F (8,147) = 7.191, $p < .001$, with an adjusted R^2 value of .242 indicating that approximately 24% of the variance in cyberbullying involvement was explained by the model including each of these variables. According to Cohen (1988), this a small effect. Beta coefficients are presented in Table 16. Note that Male Gender, Segregated Programming, Time Online, and Connectedness to Friends significantly predict cyberbullying involvement when all other variables are included in the model. Time Online was the strongest predictor of Cyberbullying Behaviors. Connectedness (family, friends, and teachers), Designation (IBI Designation/EBD) and Inclusive Programming were not identified as significant predictors of Cyberbullying Behaviours when all other variables were included in the model.

Table 16

Simultaneous Multiple Regression Analysis Summary for Connectedness to School, Connectedness to Family, Connectedness to Friends, Partially Segregated Programming, Completely Segregated Programming, IBI Designation, and Gender Predicting Cyberbullying Involvement (N=156)

Variable	B	SE B	Beta	*T*	*p*[a]
Connections to School	-.082	.070	-.093	-1.175	.242
Connections to Family	-.212	.112	-.164	-1.898	.060
Connections to Friends	.216	.087	.208	2.487	**.014**
Partial and Full Inclusive Programming	.010	.030	.022	.314	.754
Segregated Behaviour Program	3.129	1.311	.190	2.387	**.018**
IBI Designation	.846	.803	.095	1.054	.294
Gender	-1.065	.510	-.156	-2.088	**.039**
Time Online	.931	.222	.320	4.188	**.000**

[a] Significance *p<0.05*

Model 4: Cybervictimization experiences. A simultaneous linear regression was used to identify the key predictors of cybervictimization. Reported levels of cybervictimization were regressed onto the predictor variables of connectedness (connections to peers, teachers, and family), IBI designation (EBD-diagnosed), programming (inclusion versus segregated), time online (hours online) and gender. The overall regression was statistically significant, F (8,148) = 5.772, $p < .001$, with an adjusted R^2 value was .197 indicating that approximately 20% of the variance in cybervictimization involvement was explained by the model including each of these variables. According to Cohen (1988), this a small effect. Beta coefficients are presented in Table 17. Note that Connectedness to Family and Time Online are significantly

predictive of cybervictimization involvement when all other variables are included in the model, with Time Online being the most strongly predictive variable. Connectedness to family and friends, designation (IBI designation/EBD), segregated or inclusive programming, and gender were not identified as significant predictors of cybervictimization behaviours when all other variables were included in this model.

Table 17

Simultaneous Multiple Regression Analysis Summary for Connectedness to School, Connectedness to Family, Connectedness to Friends, Partially Segregated Programming, Completely Segregated Programming, IBI Designated, and Gender Predicting Cyber Victimization Involvement (N=156)

Predictors	**B**	**Std. Error**	**Beta**	***T***	***p*[a]**
Connections to School	-.195	.103	-.152	-1.901	.059
Connections to Family	-.355	.162	-.190	-2.190	**.030**
Connections to Friends	.187	.127	.126	1.470	.144
Partial and Full Inclusive Programming	-.026	.045	-.042	-.576	.565
Segregated Behaviour Program	3.563	1.923	.151	1.852	.066
IBI Designation	1.028	1.172	.081	.877	.382
Gender	.481	.741	.049	.649	.517
Time Online	1.095	.323	.263	3.389	**.001**

[a] Significance $p<0.05$

Qualitative trends in cyberbullying and cybervictimization specific to risk and protective factors. Interview reports concur with survey results identifying cyberbullying and cybervictimization as influenced by factors such as gender, segregated programming, time spent online and connectedness to friends and family. Qualitative analyses suggest that specific EBD characteristics may place these youth at greater risk.

To examine this, the following section will summarize cyberbullying and cybervictimization experiences among youth with and without EBD, as reported during interview. This will include an analysis of similarities and differences in risk factors between groups.

Youth with EBD may be at greater risk on line, as in face to face contexts, due to characteristics such as poorly developed social and self-regulation skills. Youth with EBD who reported involvement in cyberbullying and -victimization seemed to struggle to navigate and regulate online interactions *(*i.e. *"I stop and turn my phone off, but its hard to keep my phone off, I turn it back on and say 'please stop' again. Then my mom takes my phone away." "I can't remember doing any online bullying, but if someone's being a bitch, I'll tell them they're a bitch; a lot of time people are being bitches online."*). Youth with EBD in inclusive classrooms characterized their experiences of cyberbullying and cybervictimization as being more intense and out of control, but also reported experiencing confusion about aggression online (*i.e. "People are mean to me because they're complete assholes." "I have more fights online than in person; I often fight online. I talk to people with depression and ADHD like I have, to support them, but then people tell me to go KMS [kill myself]."*). However, this was not the case for all EBD adolescents. One particularly savvy female with EBD explained that "if [she's] going to say something mean or threaten someone, [she's] not going to do it online because then there is proof."

Risk was especially elevated among males with EBD, which appeared to worsen with time spent online in first-person shooter gaming environment. This was magnified even further in EBD males who were in segregated programming. Both males with and

without EBD acknowledged that these games are violent. However, all non-EBD males and EBD females recognized the potential for negative transgressions, had identified them and had disengaged when behaviours online crossed appropriate limits. In contrast, males with EBD in segregated programs reported uninhibited acts of verbal assaults while gaming from which they appeared to derive excitement (i.e. *"I have a comeback for everything that's way harsher.[laughs] I don't like saying them because they're pretty mean and because saying them face-to-face is weird but online you can go crazy." "I keep trash talking them until they leave the game."*), immunity (i.e. *"You can't just go to someone's house." "In real life, there are snitches that tell on you."*), and power (i.e. *"We find someone who is really bad at the game and we all pick on that dude. Seeing how horrible they are is kind of enjoyable because if they're new and getting destroyed, its fun to be the one destroying them." "I have video screen shots of wrecking kids, and I show these to prove I beat them."*). The intensity of these reports appeared angry, unempathetic, and socially inappropriate and differentiated males with EBD in segregated programs from the rest of the group.

More time online, without monitoring and supervision, coincided with increased reports of *both* cyberbullying and cybervictimization in non-EBD youth and those with EBD. Of the youth with EBD who spent time online, only two reported having strict limits imposed by caregivers and one reported limiting her own usage. These three individuals interestingly reported almost no experiences with cyberbullying and cybervictimization compared to those youth with EBD whose on-line use is unmonitored. Non-EBD adolescents reported minimal involvement in and adverse affects from cyberbullying and cybervictimization. These youth appeared to have well-developed

social and self-regulation skills, they carefully approached interactions online, and had coping skills to manage cyberbullying without retaliation (i.e. reported Instagram hate account to the company, which immediately deleted it; delete hateful messages; block unsolicited viewers to sites; *"When I go on a losing streak, I get angry, too, but I do something to calm myself down like read or go outside." "People report the person and the game, since the audio is recorded, and the person is suspended or banned from competitive play for 3 months." "If I'm going to say something mean or threaten someone, I'm not going to put it online because then there is proof." "If I'm playing a game, I say they're annoying but I don't want to be blocked [so I don't say anything worse]. I hack their account so their character stops moving and they can't chat [instead]."*). These same youth also appeared to have imposed limits on their access to technology or were able to limit it for themselves (i.e. *"I'm not allowed to be on social media or have a phone until high school." "I don't have social media, but my friends show me if something is posted about me. I address it and then that person deletes it quickly when they know I've seen it."*). Further, non-EBD males who reported engaging in online gaming, regularly removed themselves from the games when negative transgressions got out of control and limited their time online gaming as a result.

Similar to with face-to-face bullying involvement, peer connections seemed to negatively influence individuals' online experiences. Non-EBD and EBD youth reported discussing online issues only with their peers as adults were seen as not understanding technology, not knowing how to solve the problem and, in fact, exponentially making online problems worse. Therefore, when cyberbullying and cybervictimization arose for adolescents, they often disclosed to and exclusively relied on their peers for guidance and

support. Both non-EBD and EBD youth appeared to feel supported by and saw themselves as offering good advice relative to cyberbullying and cybervictimization with peers. Unfortunately, the advice of their peers connections position them at greater risk of involvement in cyberbullying and victimization.

Connections to family offered the only significant protective factor against cyberbullying and cybervictimization for both EBD and non-EBD youth as seen in the quantitative data. However, the qualitative data presented a slightly different picture. Most EBD and non-EBD youth reported not talking to parents when problems arose online, because they felt their parents would do not understand or would exacerbate the problem. However, it is possible that family connections may be supportive in other ways. First, siblings may be supportive of adolescents with online problems as one non-EBD respondent disclosed (i.e. *"There was a hate account against me and my two BFF's on Instagram. My sister reported it and it went away."*). Alternatively, general social-emotional support from families and learning about boundaries may serve as a broad protective factor. Although EBD and non-EBD youth rarely turned to their families for online problems, the majority of EBD youth reported that they would turn to family or friends when they need support. Unfortunately, only 20% of EBD identified a family member they would turn to for support, meaning that 80% did not feel they had a secure connection with their families.

Results overall demonstrated that, compared to their typically developing peers, youth with EBD are more involved in both face-to-face and cyberbullying and cybervictimization. With respect to bullying behaviours in face-to-face contexts, results show that connectedness to friends, EBD-diagnosis, and segregated programming may

increase risk, whereas connectedness to family may reduce it. With respect to victimization experiences in face-to-face contexts, EBD-diagnosis may increase risk, while connections to teachers may reduce risk. Factors most predictive of cyberbullying behaviours included connectedness to friends, male gender, segregated programming, and increased time online. The factor most predictive of cybervictimization experiences included time online, whereas connectedness to family seemed to reduce risk. With the exception of inclusive programming, each other predictive variable resulted in significant associations with bullying and victimization, when analyzed in interactions with the other variables. This means that for youth with EBD who were in inclusive environments (either with no pull-out programming, or partial daily or weekly pull-out programming) rather than segregated programming, this inclusion was neither a risk nor protective factor influencing their involvement in face-to-face or cyberbullying or cybervictimization. Interview results were consistent with survey analyses, showing that participants with EBD are over-represented in bullying behaviours and victimization experiences both on- and off-line when compared with non-EBD peers. Adolescents with EBD justified their face-to-face bullying behaviours as a response to being victimized. Interestingly, males with EBD who are in segregated programs saw acts of cyberbullying as normal and as empowering. Connectedness served as either a protective or exacerbating variable, depending on the quality and quantity or connection, in qualitative responses as it did in quantitative results.

Chapter 5

Discussion

Cyberbullying has joined face-to-face bullying as a widely recognized problem for youth, and still requires further understanding, especially among those with complex risk factors such as emotional and behavioral disorders (EBD; Rose, 2010; Rose et al, 2012; Hinduja, 2008). What is understood is that youth with special educational needs (SEN), particularly those with EBD, appear to be at higher risk of bullying and victimization, leading to negative long-term outcomes (Holtz & Appel, 2011; Beran et al, 2012; Navarro et al, 2013; Cuervo et al, 2014; Wells & Mitchell, 2014; Bonanno et al, 2013; Rose et al, 2012; Hong et al, 2012; Kaltiala-Heino et al, 2011; Kowalski et al, 2012; Hinduja et al, 2008, Didden et al, 2009). Solutions to bullying have typically focused on supportive problem-solving interventions for victims, with variable success (Jones et al, 2011; Wells et al, 2014; Navarro et al, 2013; Cassidy, 2009; Bonanno et al, 2013; Hinduja, 2008). It is possible that bullying prevention may be a more effective solution. However, this requires identifying the individuals most at risk of bullying behaviours and involvement, and the multiple interactive factors predisposing them to this risk; recognizing the source. Therefore, prevention begins by identifying individual characteristics of risk, recognizing the microsystem factors (connections to teachers, family, peers) and macrosystem factors (inclusive or segregation educational policies and programming) exacerbating this risk, and understanding and implementing appropriate prevention strategies. Further, in this era when youth increasingly spend time online, it is crucial to understand the face-to-face and cyber contexts for bullying, and the frequency with which it occurs in these venues.

With this perspective in mind, the current study focused on investigating bullying involvement in typically developing adolescents (non-EBD) compared with those who have EBD. Adolescents with EBD were a focus, following research suggesting that these youth are particularly at risk for bullying involvement (Rose et al, 2012; Holtz et al, 2011; Beran et al, 2012; Navarro et al, 2013; Cuervo et al, 2014; Wells et al, 2014; Bonanno et al, 2013). A variety of potential risk factors including connectedness with others (Farmer et al, 2011; Sabol et al, 2012; Juvonen, 2007), gender (Jones et al, 2013), type of programming (segregated versus inclusive) (Rose, 2011; MacFarlane et al, 2013) and time spent online (Jones et al, 2013; Hong et al, 2012) were explored. Given that adolescents with EBD are one of the last populations of students to be segregated in BC schools, an investigation of programming context (inclusive versus segregated) was considered pertinent. This study has the potential to inform social and academic programming for adolescents with EBD, currently and in the future.

To determine the context for bullying and specific risk factors that influence adolescents' involvement in bullying dynamics, three primary questions were asked: 1) Are adolescents with EBD more involved in face-to-face bullying and victimization than typically developing (non-EBD) adolescents; 2) Are adolescents with EBD more involved in cyberbullying and cybervictimization than typically developing (non-EBD) adolescents; and 3) Do factors such as connectedness (friends, family, teachers), gender, time online (specific to cyberbullying and victimization), designation (IBI/EBD or non-designated), and programming (inclusive versus segregated) influence involvement in the bullying dynamic, both face-to-face and online. As far as I am aware, this study is the first in Canada to investigate the incidence of both on- and off-line bullying involvement

in youth with EBD, while considering both individual (within-person) and socio-ecological risk factors.

Hypotheses Supported

Six key findings emerged from the current study. First, adolescents with EBD were found to be more involved in face-to-face bullying and victimization than their non-EBD peers. Adolescents with EBD saw themselves as pervasively victimized, yet interestingly also reported significantly more involvement in face-to-face bullying behaviours. This is consistent with the limited body of research literature on this topic, which has identified youth with EBD as being over-represented in the face-to-face bullying dynamic as both bullies and victims (Rose et al, 2012). Observations and self-reports of adolescents with EBD are also consistent with research suggesting that within-person characteristics of youth with EBD, such as limited social awareness, lower social skills (Hong et al, 2012; Mishna, 2003; Kowalski et al, 2011; Kaltiala-Heino & Frojd, 2011; Rose, 2011), externalizing behaviours, and internalizing concerns (Didden et al, 2009; Kowalksi et al, 2013; Modecki et al, 2013; Dooley et al, 2013; Vaillancourt et al, 2013) may predispose them to bullying involvement.

Second, adolescents with EBD reported a higher incidence of cyberbullying and cybervictimization involvement compared with their non-EBD counterparts. Similar to face-to-face bullying and victimization, literature examining cyberbullying and cybervictimization has identified within-person characteristics of EBD youth as exacerbating their risk of involvement in bullying, including internalizing concerns, externalizing behaviours/conduct problems and low self-concept (Bonanno et al, 2013; Didden et al; Beran et al, 2012; Navarro et al, 2013; Werner et al, 2010; Didden et al,

2009). Given that research suggests that face-to-face bullying and cyberbullying involve considerable overlap (Olweus, 2012; Jones et al, 2013; Hinduja, 2012), it is not surprising that EBD youth who were overrepresented in face-to-face bullying dynamics were also more likely to participate in cyberbullying (Kowalski et al, 2012; Hinduja, 2012; Olweus, 2012).

The third finding identified several factors that influence the likelihood of involvement in face-to-face bullying. Factors that appear to increase adolescents' risk of bullying behaviours and bullying involvement include connections to friends, being designated as IBI (EBD-diagnosed), and participating in segregated educational programming. Having connections to and social support from family was identified as reducing adolescents' bullying behaviours, and can therefore be seen as a protective factor.

Since adolescents with EBD were identified as more involved in face-to-face bullying than non-EBD youth, it stands to reason that within-person characteristics related to diagnosis (EBD), place these adolescents at increased risk. This finding concurs with the literature connecting characteristics such as internalizing and/or externalizing behaviours with increased face-to-face bullying behaviours (Holtz et al, 2011; Beran et al, 2012; Well et al, 2014; Rose et al, 2012). It is commonly recognized that youth with EBD have lower social awareness/skills and limited/negative social opportunities or friend networks among adolescents when compared with their non-EBD counterparts (Hartup, 1996; Farmer et al, 2011). It may be that individuals with EBD struggle to differentiate social communication, or that they have become socialized aggressors. Either may lead them to communicate with aggression because this form of

communication has been modeled for and become most familiar to them, is engrained in social schema for them, or asserts and results in a form of social control in their lives where they may feel limited self-determination or control.

Segregated programming was identified as a significant risk factor of face-to-face bullying, agreeing with literature suggesting that segregation may exacerbate pre-existing risk factors for adolescents with EBD (Rose, 2011; Langager, 2014). Adolescents with EBD often have limited social connections, which are regularly compromised by their own social limitations. Segregating these youth from peers who have strong social skills and who may serve as positive role models, may further limit their ability to develop healthy social networks and pro-social skills (Wendelborg et al, 2011; Saylor et al, 2009). Conversely, supported inclusive programming may provide more opportunities for youth with EBD to develop pro-social skills and positive connections, thus mitigating some of the risk factors that increase their risk of bullying involvement. However, considering the sample of only 6 segregated adolescents and the fact that segregating EBD adolescents is the result of these specific individuals' disproportionate risk compared to other EBD and non-EBD adolescents, solid conclusions claiming segregation as exacerbating risk are difficult to determine. It may be that inclusion may be a protective factor for many adolescents with EBD, but that for exceptionally at-risk adolescents with EBD, they may benefit most from the individualized attention and targeted interventions available in segregated programming.

Results from this study suggest that connections may serve either as a risk or protective factor, depending on the type of connection, with whom, and how adolescents perceive that connection. In the case of face-to-face bullying involvement, having

connections to friends was positively associated with a higher risk of bullying involvement. While this contrasts literature that suggests friendships are protective in adolescence (Juvonen, 2007; Farmer et al, 2011; Hong et al, 2012), it agrees with the literature suggesting friendships with anti-social peers may perpetuate negative behaviours and increase the risk of bullying involvement (Farmer et al, 2011, Juvonen, 2007; Hartup, 1996). Alternatively, it may be that the relationship between connections with friends and bullying behaviours is curvilinear; for example, having one friend or a large group of friends might be protective, whereas having a smaller group of friends may serve as a risk factor, particularly if those friends have anti-social qualities (Hartup, 1996; Farmer et al, 2011). This study showed that family connectedness and perceived family support, was negatively associated with the risk of perpetuating bullying behaviours. Family connectedness has been considered one of the most enduring factors contributing to positive social-emotional development and resilience, particularly in those with SEN (Bowes, Caspi, Moffit, & Arseneault, 2010; Herraiz & Gutierrez, 2016).

Fourth, with respect to face-to-face victimization, the findings identified only one significant risk factor and one significant protective factor. The only significant factor identified as increasing adolescents' risk face-to-face victimization was having an EBD diagnosis (IBI designation). Connections to teachers, conversely, acted as a significant factor in reducing adolescents' risk face-to-face victimization experiences. The first finding was not surprising in that it has been documented that youth with EBD are at higher risk for bullying and victimization involvement, due to the within-person social and behavioural characteristics that resulted in their EBD diagnosis (Rose et al, 2012; Bonanno et al, 2103). Conversely, it is also well-documented in the literature that

connections to and supports from teachers are protective for all youth. Key features of teacher-student connections include teachers having genuine and intentional student connections, and careful orchestration of opportunities for students in order to foster positive individual social skills, build classroom social dynamics, and maximize peer relationships (Farmer et al, 2011; Sabol et al, 2012; Hong et al, 2012; Juvonen, 2007). It is recognized that "a relationship with at least one caring adult, but not necessarily a parent, may be the most important element in protecting young people who have multiple risks in their lives; for many youth, this adult is a teacher" (Sabol et al, 2012). Adolescents with EBD, in particular, may benefit from and be protected by a positive relationship with an informed and accepting teacher who is focused on building adolescents' self-esteem, peer relationships, social skills, self-regulation, and acceptance (Sabol et al, 2012; Farmer et al, 2011; Junoven, 2007; MacFarlane et al, 2013).

Fifth, the current study found that perpetration of cyberbullying behaviours was influenced by several of the same factors that influenced face-to-face bullying behaviours. A positive association was found between higher levels of cyberbullying behaviours and having more connections to friends, being involved in segregated programming, spending increased time online, and male gender. No significant association was found between perpetration of cyberbullying behaviours and connections to family, connections to teachers, EBD diagnosis/IBI designation, or inclusive programming. However, it may be inferred that EBD diagnosis and/or inclusive programming may be associated with cyberbullying since adolescents in segregated programming all have EBD diagnoses. This may suggest, concurrent with some literature, that EBD adolescents are at increased risk of cyberbullying when in segregated

programming and protected in inclusive programming environments (Wendelborg et al, 2011; MacArthur, 2103).

Having more connections to friends was identified as increasing levels of cyberbullying behaviors, consistent with the results found for face-to-face bullying behaviours. This lends further support to the notion that the friendships in this particular sample may have had a negative influence. This could be due to friends who have negative characteristics that are encouraging bullying behaviors, or could be explained by admissions of adolescents that they turn to peers and not adults when problems arise online. Therefore, the advice they receive from peers in these situations may perpetuate aggressive responses to conflict online rather than reduce negative behaviours or peer conflict online.

Segregated programming was also found to increase the risk of cyberbullying behaviour, just as it did face-to-face. For the same reasons as indicated above, adolescents with EBD in segregated programs may have limited access to pro-social peers and good role models further increasing internalizing and externalizing behaviours. However, it could also be that these youth were placed in segregated programs due to their exponentially higher pre-existing risk factors and propensity towards socially aggressive communication. From interviews, it appeared as though many of the EBD youth in the segregated program suffered from low-self-esteem, recognized that they were different and alienated from peers, but also demonstrated exceptionally aggressive social skills.

The risk of perpetuating cyberbullying behaviours was increased significantly when more time was spent online. Presumably, the more interactions an individual has

online, the more opportunity there are for both positive and negative exchanges (Jones et al, 2013; Ybarra et al, 2004). This appears to have been the case in this study.

Cyberbullying behaviours were identified as occurring with greater frequency in males than females. This is in contrast to the pattern seen for face-to-face bullying and victimization, and cybervictimization. Consistent with prior research (Ybarra et al, 2004), the results of this study suggest that males and females are equally represented in face-to-face bullying and victimization. However, this study identified male gender as a significant predictor of risk for cyberbullying but not cybervictimization, in contrast with prior cyberbullying research suggesting that females may be more involved than males in cyberbullying (Jones et al, 2013; Navarro et al, 2013). The findings of this study may be discrepant from prior research for several reasons. First, the sample size of this study was small, which could limit accuracy. A second possibility may be that the focus on an EBD population, which has a higher proportion of males with a greater degree of social and/or behavioural deficits, may be influencing the results. Third, most of the EBD participants in the segregated program in this study's sample were male, suggesting that the males in this sample may have had more severe EBD diagnoses. Finally, increased time online among males with EBD, may also have interacted with gender, since these individuals would be exposed to Information Communication Technologies commonly used in segregated programming settings, in addition to the online gaming they are participating in at home. Results pertaining specifically to the impact of gender must be interpreted with caution, due to various factors that may have been interacting with gender to influence results.

Mediating factors not fully explored in this study may be driving the association between gender and increased cyberbullying risk. These require further exploration such as where individuals spend their time online. Information obtained through interviews suggested the cyberbullying behaviours exhibited by males with EBD were more verbally aggressive than cyberbullying behaviours described by their non-EBD counterparts. In addition, the cyberbullying behaviours discussed by females with EBD were also more aggressive than that described by their non-EBD peers who engaged in cyberbullying behaviours. However, females with EBD reported that they tend to aggress more on social media sites or via texting, whereas males with EBD reported cyberbullying via microphones or text features exclusively while gaming, which is consistent with the literature (Holtz et al, 2011; Jones et al, 2013; Navarro et al, 2013).

Finally, with respect to cybervictimization, connections to family and less time online were negatively associated with cybervictimization experiences. In other words, having better connections with family and spending less time online reduced the chances of being a victim of cyberbullying. Connections to friends or teachers, segregated versus inclusive programming, gender and EBD status did not significantly reduce the risk of cybervictimization. Connectedness to family was seen as protective, both against cybervictimization and face-to-face victimization. This finding is supported by research indicating that family connectedness is important for all youth, both those with and without SEN (Bowes et al, 2010; Herraiz et al, 2016). Similar to with cyberbullying behaviours, spending less time online also reduces the chances of cybervictimization likely because youth have less exposure to more interactions, and potentially negative social interactions.

Limitations

The current study has a number of limitations. First, the self-report nature of the survey done only by the students is a substantial limitation in that an adolescent's perspective might not always accurately represent reality (Muijs, 2011). Triangulation of perspectives by including varied respondents to surveys, such as family members, teachers, administrators, and peers, would allow a broader perspective on bullying behaviors and risk or protective factors across multiple settings.

A second limitation is the lack of a truly random sample. The voluntary nature of recruitment involved in this study means that those who volunteered for the study (both EBD and non-EBD) may not be fully representative of the population as a whole. In addition, although two school districts were recruited, the majority of participants were drawn from eight schools within one school district in a relatively small Canadian city, limiting the diversity and representativeness of the sample.

Third, as indicated above, the sample was substantially unbalanced with respect to the numbers of individuals in the EBD (30) versus non-EBD (134) groups. In other words, many more non-EBD adolescents volunteered to participate in the study than EBD adolescents. Given that non-EBD youth volunteered their time, effort, and perspectives, their data was included even though this contributed to imbalanced sample sizes and challenges to statistical analyses. The limited number of participants with EBD was expected given that there are fewer adolescents with than without EBD. Further, adolescents with EBD often come from families with complex social challenges and support needs, which limits their capacity, time, and resources to volunteer for research studies. In addition to imbalanced sample sizes, the study was imbalanced in terms of

gender, since the EBD sample was comprised of a much higher male to female ratio than the non-EBD sample, with almost all participants in the segregated program being male. However, it is the case that many more males than females have IBI designations in schools and are in segregated behaviour programs, so this gender imbalance appears to accurately reflect the balance of males to females with EBD in BC schools. Since gender was one of the variables specific to the third research hypothesis, it was not covaried out, but in future studies would be an additional extension to pursue. Finally, of the 30 participants with EBD, only 22 had a sole designation of EBD, while 8 had dual designations (i.e., seven with LD and 1 with a Mild Intellectual Disability), limiting conclusions of risk that can be drawn about EBD as a risk factor. Therefore, this limits conclusions determining direct comparisons between the EBD and control groups.

Fifth, the PECS Survey is a new survey instrument that is not standardized, nor peer-reviewed. However, items from the PECS were selected from previously administered surveys that have been reported in the research literature with construct reliability and validity. When compiled into the PECS, existing surveys were minimally modified as needed for the target sample and current research hypotheses. It was felt that the benefits of utilizing a survey that would be more readable and tolerable for this study's population, outweighed the costs of using an unstandardized tool. Further, preliminary internal consistency estimates indicated good reliability. Nevertheless, it is recognized that future investigation of the psychometric properties of the PECS will be important, including other aspects of reliability (i.e. test-retest reliability) and validity (i.e. construct validity and content-predictive validity) in a Canadian sample, will be important. An additional limitation of the PECS is that it was created based on survey

tools that were developed and researched on a US sample. However, it was determined that the Canadian sample was close enough in characteristics to the US sample and that the questions being asked were relevant in Canada, warranting use of these questions. Nevertheless, results must be interpreted with caution with respect to their validity in a Canadian sample.

Sixth, data was not collected blind. For logistical reasons, the primary investigator both surveyed/interviewed the youth and analyzed the data. The PI was aware of which students were EBD and which students were non-EBD and it is possible that bias could have been introduced as a result of this knowledge. This could have inadvertently influenced how the primary investigator asked questions, how much probing was done, etc., even though attempts were made to use scripts so that interviews occurred in as consistent manner as possible. It should also be noted that EBD and control participants preferred to have surveys completed in a different manner. Many EBD youth preferred to have survey questions read aloud to them, while non-EBD youth preferred to read questions themselves. In order to help youth complete the survey this request was accommodated, but again it is recognized that this could have affected the results.

Seventh, personal information specific to individual demographics and each individual's microsystems was not collected, thereby disabling this study's ability to draw deeper and more descriptive conclusions. Demographic information such as SES and ethnicity, and individual factors including family structure (i.e., single-parent families, foster care, etc.), length of time with a designation and/or diagnoses, services and supports accessed or received by EBD students (i.e., social skills training, counseling

for aggression, etc.) were not gathered. The absence of these descriptors further limits conclusions that can be drawn.

Finally, many of the assumptions of the statistical analyses utilized (ANOVAs and regressions) were violated, in part due to the small sample size and unbalanced sample (discussed above). This clearly could impact the accuracy of results and how much confidence can be placed in these results. Results, therefore, should be considered with caution and should be considered as preliminary information to inform future studies in this area.

Implications for Schools and Future Research

The results of this study hold many implications for district policies, programming in schools and awareness among teachers pertaining to bullying and cyberbullying, particularly in vulnerable youth such as those with EBD. First, results identify those youth most vulnerable to bullying and victimization involvement on- and off-line as adolescents with EBD. Secondly, it appears that segregated programming might place these vulnerable youth at higher risk of bullying and victimization, suggesting that inclusive programming for most adolescents with EBD may be more developmentally preferable and protective. Thirdly, with inclusion must come more education for all of those who support at-risk youth, particularly around some of the factors that may place these youth at greater risk. The importance of connections with school and teachers, families, and positive friendship groups, as protective factors cannot be underestimated. Recognizing risk factors of segregation, limited social competence (EBD), aggression as a form of communication, negative friend dynamics, and time online provides the opportunity to correct these risks.

Individual risks must be recognized in order to most supportively assess and understand each individual student to ensure all adolescents are treated to the respect, insight and empathy, and appropriate programming to set them each up individually for success. Segregated programming may be deemed most beneficial for a small number of students, and these individuals should be thoughtfully empowered with this choice, the opportunities for intensive and personalized interventions that target their individual needs and skill development, and potentially the goal towards inclusion. For those students who are able to enjoy the benefits of informed inclusive programming, they should be afforded that opportunity with the additional resources and supports necessary to give them safe spaces and supports to learn to skills they require to participate successfully in each environment they choose.

In whichever program – Inclusive or Segregated - is assessed as most beneficial to the individual, all educators (i.e., administrators, teachers, counselors, educational assistants, administrative and custodial support staff, etc.) should be equipped with the knowledge and skills to best understand and support vulnerable youth such as those with EBD caught in negative cycles (i.e. recognize/acknowledge strengths, acknowledge trauma and it's effects/behaviours, utilize a strength-based approach, learn trauma-informed self-regulation and problem-solving tools). Informed teachers will benefit all students, and especially those most vulnerable to risk by teaching and weaving explicit social skills with authentic opportunities throughout each day (i.e., individual and collective opportunities to support structured problem-solving, self-regulation, social awareness, constructive or positive social communication, etc. during organized structured or unstructured games/play, during inquiry learning such as Makerspace, etc.),

orchestrating social opportunities to positively connect peers within school/classroom communities (i.e., during collaboration, group inquiry, physical or academic game-playing, etc.), and weaving digital awareness and citizenship throughout all curriculum (i.e., not one isolated unit, one time) are important places to consider beginning. In understanding risk and protective factors that influence bullying involvement (both bullying behaviours and victimization involvement), special and general education teachers will be better positioned to provide early supports and interventions for youth with EBD, to hopefully impact the cycle that contributes to the bulling dynamic and associated negative outcomes. Further, better proactive learning and preventive programs can be genuinely engaged in and tailored to each specific school culture, with the individuals in mind. Strategies such as recognizing strengths, acknowledging trauma, utilizing a strength-based inclusive approach, delivering explicit pro-social programming interventions, whole-class social programming, and providing carefully and authentically orchestrated opportunities for a social skill development will benefit every child, particularly those with social and behavioural deficits such as youth with EBD. Limiting time online, but availing opportunities online with explicit support of adolescents' awareness and navigation benefits and risks may also be supportive. Student recognition of the benefits of technology and ways to use it constructively is as importantly taught and the negative forces and navigation of those. It is equally important to understand what to do, first, as what not to do, relative to all learning. Explicit teaching about technology on an on-going basis from an educated adult may moderate some of the risk involved in peers relying on peers to navigate problems online, and may support students to see adults are viable and effective supports to turn to when problems arise.

Developing connections with a holistic and team-based approach may increase protective sources of support for adolescents. Understanding the importance of connections and then intentionally and genuinely connecting with students (i.e., 2 x 10 Initiatives, etc.), connecting adolescents with different peers (i.e., social opportunities and careful orchestrations within inclusive and segregated programming), and supporting connections with and among families and students are great places to start (i.e., community-school activities that include families with their children, positive calls home, strength-based parent-student-teacher meetings, positive teacher-parent connections, etc.). Connections appear to avail an opportunity to moderate risk and increase protection for all students, but may be especially life-changing for those with more vulnerable trajectories.

Careful attention should be given to individuals with exceptional learning needs and developing a culture of empathy in early elementary schools to protect against the potential for risk academic and social differences incite. Both social and academic struggles appear to play a role in adolescent risk. Therefore, inclusive interventions with targeted balanced literacy, numeracy, and social programming are important early in individuals' school experiences. Teaching teachers to recognize the signs of all disabilities, including Learning Disabilities, externalizing and internalizing behaviours characteristic of EBDs, etc. and providing targeted interventions may moderate the risk these struggles appear to escalate. Recognizing risk and moderating that risk are important in all domains, and the impact of academic and social functioning early on should be well understood and addressed.

Finally, since findings are yet inconclusive specific to whether existing anti-bullying programming effectively prevents or reduces bullying, until it is proven otherwise, this may be helpful to continue in addition to pro-social programming that has no association with bullying. It may be that the more strength-based resources, problem-solving tools, and pro-social skills with which an adolescent is equipped may change the trajectory for our most vulnerable youth, and therefore for all youth.

The current study was the first known study specifically examining the potential overlap between face-to-face and cyber-bullying and cyber-victimization among adolescents with EBD in British Columbia and in Canada. Further, it appears to be the first study in Canada to examine interacting risk and protective factors differently positioning adolescents with and without EBD in the bullying dynamic on- and off-line. At a time when education is steering all students into more inclusive environments and schools are increasingly adopting technology into their general education and special educational programming, this information is particularly relevant to school practice. Interestingly, this study happened at the end of an era of segregated behaviour programming for students with EBD in SD61, which is moving towards a full inclusion model. Future studies may wish to compare bullying involvement and risk/protective factors in those students who have been previously segregated, to determine whether a full inclusion model truly reduces bullying involvement and whether segregation is truly a risk factor for bullying involvement.

In the future, it would be helpful to replicate the current study with a more gender balanced and representative sample. Recruiting a larger sample to increase study power will also be extremely important. Using test-retest reliability to examine participants'

responses at different points in the year may yield information relative to both reliability of the current survey and potentially differences in experiences at different points in a school year. Further, it is recommended that future survey-based studies with individuals with complex needs include an interview component as this one did. While surveys matched interview responses for non-EBD participants, there was some discrepancy between the accuracy of the EBD participants' survey responses and their interviews. In addition, the interviews with these particular participants provided richly descriptive insights into their experiences, perceptions, and motivations for their behaviours. Future studies may wish to explore in greater detail how connectedness to friends either positions individuals at greater or lower risk for bullying involvement. It may also be helpful to investigate how comorbid diagnoses or designations influence behaviours and trajectories among youth with EBD differently, comparing those with and without comorbid disorders (i.e. youth with both LD and EBD, compared with youth only EBD), and identifying further distinct qualities of risk. With a more representative sample, the impact of gender could be more accurately explored. Since Jones et al (2013) identified females as more involved on social media, and qualitative data in the current study suggests males were more involved on gaming sites, more in-depth research into sites that pose a greater risk and mitigating risks online would be helpful. Finally, this study focused on only a few of many potential risk/protective factors that may influence bullying involvement. Investigations into other risk and protective factors that may influence bullying involvement, such as particular clinical diagnoses, socio-economic status, personality features, life experiences, among others will also be important.

The Peer Experiences and Connectedness Study set out to identify those adolescents at greatest risk of bullying and victimization on- and off-line, and potential protective and risk factors. Results indicate that adolescents with EBD appear to be over-represented in both face-to-face and cyber-bullying and cyber-victimization behaviours and experiences. A diagnosis of EBD was a significant predictor of face-to-face bullying and victimization, and cyberbullying, when students were in segregated programming. Connectedness to family served as a protective factor for both face-to-face bullying and cybervictimization, while connectedness to teachers was protective against face-to-face victimization. Results on connections to friends indicated that friendship connections in this study were a factor, positioning adolescents at risk for perpetuating both face-to-face and cyberbullying. Segregated programming significantly positioned adolescents at risk of both face-to-face and cyberbullying. Increased time online exacerbated cyberbullying while limited time online protected adolescents from cybervictimization. Connections to friends appeared to exacerbate risk for both face-to-face and cyberbullying, while being male, increased adolescents' risk of cyberbullying. With this information, school districts, schools, and educators are in a better position to understand the identity of those most at-risk, recognize predictive factors of risk and protection, and use this information to promote more empathic teachers and social programming with which to strengthen our most vulnerable youth.

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Appendices

Appendix A: E-mail Request for Application to Conduct Research in School Districts

Dear [Superintendent's Name],

I am emailing you to begin this process of asking you for your support of my request to conduct my UVIC Master's of Arts (Special Education) thesis research with the Greater Victoria School District. I am requesting a Research Ethics Application Package from the Greater Victoria School District at this time so that I may complete it in a timely manner for your review. I have applied to the University of Victoria Human Research Ethics Board for approval of my thesis and am awaiting their feedback and approval. This approval is necessary before moving forward with the District.

The title of my thesis is, *Dimensions of On- and Off-line Bullying Behaviours Among Adolescents with Emotional and Behavioral Disorders.* An abstract giving you a brief synopsis of the literature review and questions driving my thesis is included below.

Bullying, in its many different manifestations, profoundly impacts the development and long-term health trajectory of involved adolescents, particularly those with Special Education Needs (SEN), whose involvement has been identified as double that of those without SEN. The existing research in this area has indicated that adolescents with Emotional and Behavioral Disorders, which includes our BC students with IBI and MBS designations, may be disproportionately at risk in the bullying dynamic on- and off-line. Many individual characteristics predictive of traditional bullying involvement relate to problems with social skills and social awareness, common challenges in youth with EBD. Recently, individuals with EBD were identified as twice as likely to participate as face-to-face bully-victims and 6 times as likely to be bullies (Rose & Espelage, 2012). Given that traditional bullies are twice as likely to become cyber bully-victims, individuals with EBD may also be at increased risk online. However, this research literature is extremely limited with respect to the types of adolescents that are at greatest risk for experiencing and perpetrating bullying. My research seeks to investigate dimensions of bullying behaviour on- and off-line among adolescents with EBD compared with their same-age peers without SEN. To identify this information, my thesis is asking the following questions:

1) Are adolescents with EBD disproportionately involved in traditional bullying and victimization compared to their same-age peers without SEN?
2) Are adolescents with EBD disproportionately involved in cyber-bullying and -victimization compared to their same-age peers without SEN?
3) Do factors such as connectedness (peer, teacher, familial), time online, inclusive versus segregated programming, and gender serve to reduce bullying involvement?

Through a survey and interview method, I am seeking to conduct this research with Grade 7 and 8 students with EBD and those without any designated SEN in the Greater Victoria School District and Sooke School District as soon as possible. It is the intention of my research to help to inform us about which students are most at risk with the eventual goal of developing social skill and social awareness interventions and

supports in our schools. Sharing this evidence may enlighten educators' understandings, and promote empathic programming towards the prevention of bullying behaviours and involvement among our most vulnerable youth, and in so doing, prevent further harm to all involved adolescents.

Attached are my pending UVIC Ethics Application (unsigned as I did not scan the signed copies before submission), the Appendices with that application, and the brochure, for your perusal in order to give you greater details into the exact process I am intending to follow so that this process is transparent for your awareness before approval.

I sincerely appreciate your consideration of this request and look forward to discussing my research intentions and supports further with you at your convenience. Please feel free to contact me directly by email or by phone (XXX-XXX-XXXX) if you have any questions.

Respectfully yours,
Laurissa Evancio Barker

Appendix B: Parent/Guardian Consent Form – Pilot Study

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University of Victoria Education

Parent/Guardian Consent for Youth Participation in the University of Victoria Peer Experiences and Connectedness Study

PILOT Study

Dear Parent,

I am a Learning Support Teacher in the Greater Victoria School District, a parent, and a Graduate student at the University of Victoria. One area of significant importance to me is supporting students' success in multiple academic and social-emotional ways, including protecting them from bullying involvement.

I am asking for your involvement and support in research that focuses on understanding protective and risk factors associated with on- and off-line bullying among middle school students. My research seeks to identify whether students with certain special education needs are more at risk than their peers without special education needs, and how to better protect all students. It is my hope that the results of this research will offer preventative solutions to reduce bullying and the negative long-term consequences it has on our children. To accomplish this, I need to conduct a Pilot Study before conducting my Main Study to makes sure my survey and interview will be reliable with the students I will survey for my Main Study. The Pilot Study is used to make sure the survey's reading level is suitable for participants to both read and understand, to make sure the survey is not too long, and that it holds participants attention and motivation long enough to complete it. This will be monitored and assessed by myself as I observe your child one-to-one while they complete the survey, and ask for their verbal feedback during and following survey administration.

Participation is entirely voluntary. You or your child may withdraw at any time from this study, without explanation. If the student chooses to withdraw from the study, students will be asked whether they permit the use of the data collected to that point. There are no known risks or adverse consequences to participating in, not participating in, or withdrawing from this pilot project. However, just as with any sensitive topic, the potential anticipated risks may be discomfort or embarassment talking about negative peer experiences.

The types of questions I will be asking are not expected to be more stressful than the types of questions covered during class discussions on bullying. To address any negative feelings, students will be given the opportunity to take a break, stop the interview, access my support both during and after the interview, or access support from a trusted staff member

in the school. I will be available after the survey/interview for 30 minutes in case your child has questions or concerns based on the survey.

Only Dr. Macoun and myself will have access to raw data. I will destroy pilot data following the completion of the pilot study. Information gathered during this study is strictly confidential and will not be released to any person or organization outside of the Greater Victoria or Sooke School Districts without my written permission. **Exceptions to confidentiality include situations where I am required, by law or professional obligation, to release information or to intervene. These exceptions include (a) probable harm to the student, (b) imminent harm to another person, or (c) records subpoenaed by court.**

In appreciation of your child's participation, he or she will be given a ballot entry for a draw for an iPad mini at the end of the study. To ensure everyone is comfortable participating, consent is required by both a parent and child prior to any child participating in the study. If you and your child would like to participate in this study, please sign the parent/guardian consent form AND have your child sign the youth consent form, and return these two forms to your child's teacher. The teacher will pass these on to the researcher. In order to protect your child's privacy, all school staff will refer to the study as ***The Peer Experiences Study.***

Your signature(s) below indicate(s) that you understand the information presented in this form and that you freely consent to have your child participate in the above-mentioned research study. Questions may be directed to the myself (XXX-XXX-XXXX), my University of Victoria Graduate Advisor (Dr. Sarah Macoun, R.Psych, CPBC 1549; XXX-XXX-XXXX), or the Principal of your child's school. You may verify the ethical approval of this study by contacting the Human Research Ethics Office at the University of Victoria (250-472-4545).

Respectfully yours,

Laurissa Evancio Barker
Principal Research Investigator, University of Victoria

Appendix C: YOUTH CONSENT FORM – PILOT STUDY

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University of Victoria Education

Youth Consent for Participation in the University of Victoria Peer Experiences and Connectedness Study

PILOT STUDY

Dear Student,

Many middle school students at some point in their lives have had experiences with bullying. You are being asked to participate in a research study looking to understand bullying experiences and various factors associated with on- and off-line bullying among middle school students.

The study has two parts: a survey and an interview. If you choose to participate you will leave class for around 30 minutes with a researcher who will take you to a quiet room in the school to complete the survey. The survey/interview will ask you questions about who you are connected to, and how you interact with your peers in person and online.The types of questions you will be asked are not expected to be more stressful than the types of questions covered during discussions on bullying. The researcher will be available after the survey/interview for 30 minutes in case you have questions or concerns. The researcher will also provide you with their contact information so that you can contact them if you have questions or concerns later on.This survey/interview is the PILOT part of a study of all of the Grade 7 and 8's in the Greater Victoria and Sooke School Districts. You are being asked to participate so that we can make sure that middle school students can read and understand it, to make sure the survey is not too long, and to see if it holds your attention and motivation long enough to complete it. The researcher will be watching as you complete the survey and asking you questions during and following the survey so that you can help me to make any necessary changes to the one that will be given to the grades 7 and 8's. The researcher will also ask your parents for some background information about you and will ask your teacher about whether you receive any extra services or supports at school.

The study is completely voluntary and you can stop the survey at any time or refuse to answer any questions you don't want to answer. If you decide not to participate you do not need to give any explanation. If you choose to stop the survey or interview part way through, you will get to decide whether any of your answers can be used in our study.

Everything you say will be confidential, so no one will ever be able to connect your survey or interview responses with you. The only person who gets to see the survey responses at the end is their researcher and their supervisor. They will not tell your parents, your school, or anyone else what you say in the survey or your interview except in situations where they have concerns for your safety, someone else's safety, or in **situations where they are required, by law or professional obligation, to release information or to intervene.**

These exceptions include (a) probable harm to the student, (b) imminent harm to another person, or (c) records subpoenaed by court.

If there are any questions that you don't understand or have trouble reading, I will be able to help you. You are free to withdraw from the study at any time during your completion of the survey or interview, or after you have completed both. If you choose to withdraw from the study, you don't need to offer any explanation and will be asked at that time if you permit the use of the information we have gathered from you up to that point. The types of questions I will be asking are not expected to be more stressful than the types of questions covered during class discussions on bullying. We do not know of any major risks involved with participating in this study, but just as with any sensitive topic, some of the questions may make you feel uncomfortable based on any negative peer experiences you've had. If you ever feel upset, you are completely welcome to take a break, stop the interview, talk with the researcher about how you're feeling during or after the interview, or we can access support from a staff member you trust in the school. The researcher will be available after the survey/interview for 30 minutes in case you have any questions, concerns or want to talk about anything afterwards. Also, the researcher will give you her contact information in case you have any questions later on when she is no longer at your school.

Your participation may help to inform ways we educate and protect middle school students, and how we prevent bullying and victimization among adolescents. Participants will be entered into a draw to win an iPad mini, as a thank you for participating in this study. Even if you decide to withdraw from the study, you will still receive your ballot for the draw.

Your parents and your teacher at school will know you are participating in this study. Your teacher at school will refer to the project as ***The Peer Experiences Study***, and your classmates may see you leaving class to participate in the study, but will not know anything about the study unless you choose to discuss it with them. The researcher will work with your teacher to make sure that when you complete the survey/interview, it won't interfere with your favourite or important school activities. At the end of the study, overall group results will be shared so that students, parents and school staff benefit from the information we learn. However, your individual results from this study will not be shared with anyone. If you want to ask more about this, you or your parents can call Dr. Sarah Macoun at XXX-XXX-XXXX (sjmacoun@uvic.ca) or Laurissa Evancio Barker at XXX-XXX-XXXX (levanciobarker@sd61bc.ca). As well, people at the university are making sure that this project is approved and if you or your parents had any concerns, you could call the Human Research Ethics Office at the University of Victoria (250-472-4545).

When you write your name on the line below, it means that you understood all the information about the study, and that you want to be in the study. Immediately prior to participating in the survey, the researcher will go over this consent form with you again to ensure it made sense and to answer any questions you have to be sure you still want to participate.

YES / NO I consent to participation in this research study.

Student's Name: _____
(First) (Last)

Student's Signature:_____ Date: _____

Peer Experiences and Connectedness Study
PILOT STUDY

PLEASE CIRCLE ONE.

YES / NO I consent to my child's participation in this PILOT STUDY for a research study.

YES / NO I consent to release from my child's school to the Principal Researcher of ONLY information indicating whether my child has or does not have a special education needs diagnoses and/or designation. If my child has a special education needs diagnosis and/or designation, I also consent to ONLY the title of the specific special education need diagnosis and/or designation being released. I recognize the released information will treated with the utmost privacy and strict confidentiality, WITHOUT EXCEPTION.

YES / NO If I withdraw my child from the study part way through them completing the survey or interview, their partial responses and feedback may still be used in this research study.

Student's Name: _____
(First) (Last)

Parent/Guardian: _____ _____ _____
(print) (signature) (relationship to student)

Telephone Number: _____

Date:_____

Appendix D: Parent/Guardian Consent Form – Main Study

University of Victoria

Department of Psychology
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E-mail: psyc@uvic.ca
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Department of Educational Psychology and Leadership Studies
PO Box 1310 STN CSC
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Web www.uvic.ca/epls

University of Victoria Education

Parent/Guardian Consent for Youth Participation in the University of Victoria Peer Experiences and Connectedness Study

Dear Parent or Guardian,

I am a Learning Support Teacher in the Greater Victoria School District, a parent, and a Graduate student at the University of Victoria. One area of significant importance to me is supporting students' success in multiple academic and social-emotional ways, including protecting them from bullying involvement.

I am asking for your involvement and support in research that focuses on understanding protective and risk factors associated with on- and off-line bullying among middle school students. My research seeks to identify whether students with certain special education needs are more at risk than their peers without special education needs, and how to better protect all students. It is my hope that the results of this research will offer preventative solutions to reduce bullying and the negative long-term consequences it has on our children. To accomplish this, I am conducting a brief survey and interview, and inviting all Grades 7 and 8 students in the Greater Victoria and Sooke School Districts to participate. The survey and interview will be done during school hours and will take approximately 15-30 minutes of your child's time. The survey and interview will ask questions about the kinds of peer-conflict situations adolescents come across in-person and online, how they respond to these situations, and the types of supports that youth perceive are available to them. I will also conduct a brief interview with parents by telephone to ask some basic demographic questions to ensure that your child is eligible for participation in the study. Finally, I will gather basic information from the learning support teacher at his or her school about whether your child has any special education needs.

Participation is entirely voluntary. You or your child may withdraw at any time from this study, without explanation. If a student chooses to withdraw from the study, they will be asked whether they permit the use of the data collected to that point. There are no known risks or adverse consequences to participating in, not participating in, or withdrawing from this project. However, just as with any sensitive topic, the potential anticipated risks may be discomfort or embarassment talking about negative peer experiences.

The types of questions I will be asking are not expected to be more stressful than the types of questions covered during class discussions on bullying. To address any negative feelings, students will be given the opportunity to take a break, stop the interview, access my support both during and after the interview, or access support from a trusted staff member in the school. I will be available after the survey/interview for 30 minutes in case your child has questions or concerns based on the survey.

Study results will be treated with the utmost privacy and strict confidentiality. Participant's anonymity will be guaranteed by using code numbers, rather than names, to identify the obtained results. Raw data (e.g., survey/interview information, etc.) will be kept in a locked filing cabinet within the Child Development Centre at the University of Victoria. Only Dr. Macoun and myself will have access to raw data. All identifiers will be removed from each students' data and the anonymous data will be kept indefinitely so that it may be used for other analyses in the future. Information gathered during this study is strictly confidential and will not be released to any person or organization outside of the Greater Victoria or Sooke School Districts without my written permission. **Exceptions to confidentiality include situations where I am required, by law or professional obligation, to release information or to intervene. These exceptions include (a) probable harm to the student, (b) imminent harm to another person, or (c) records subpoenaed by court.**

The information gathered from this research project may be used for publication (such as in a journal or at a scholarly meeting) and dissertation purposes now or in the future. Individual names or identifying information WILL NOT be included in any of the information gathered in this project. You will receive a written summary of the findings about 3 months following completion of the study.

In appreciation of your child's participation, he or she will be given a ballot entry for a draw for an iPad mini at the end of the study. To ensure everyone is comfortable participating, consent is required by both a parent and child prior to any child participating in the study. If you and your child would like to participate in this study, please sign the parent/guardian consent form AND have your child sign the youth consent form, and return these two forms to your child's teacher. The teacher will pass these on to the researcher. In order to protect your child's privacy, all school staff will refer to the study as ***The Peer Experiences Study.***

Your signature(s) below indicate(s) that you understand the information presented in this form and that you freely consent to have your child participate in the above-mentioned research study. Questions may be directed to the myself (XXX-XXX-XXXX), my University of Victoria Graduate Advisor (Dr. Sarah Macoun, R.Psych, CPBC 1549; XXX-XXX-XXXX), or the Principal of your child's school. You may verify the ethical approval of this study by contacting the Human Research Ethics Office at the University of Victoria (250-472-4545).

Respectfully yours,

Laurissa Evancio Barker
Principal Research Investigator, University of Victoria

Peer Experiences and Connectedness Study

PLEASE CIRCLE ONE:

YES / NO I consent to my child's participation in this research study.

YES / NO I consent to release from my child's school to the Principal Researcher of ONLY information indicating whether my child has or does not have a special education needs diagnoses and/or designation. If my child has a special education needs diagnosis and/or designation, I also consent to ONLY the title of the specific special education need diagnosis and/or designation being released. I recognize the released information will treated with the utmost privacy and strict confidentiality, WITHOUT EXCEPTION.

YES / NO I consent to a brief (5-10 minutes) telephone Parent Interview with the Principal Researcher to gather some background information about my child and to confirm his/her eligibility for study participation.

YES / NO If I withdraw my child from the study part way through them completing the survey or interview, their partial responses may still be used in this research study.

Student's Name: _____
(First) (Last)

Parent/Guardian: _____ _____ _____
(print) (signature) (relationship to student)

Telephone Number: _____

Date:_____

Appendix E: YOUTH CONSENT FORM – Main Study

University of Victoria

Department of Psychology
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Department of Educational Psychology and Leadership Studies
PO Box 1310 STN CSC
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Web www.uvic.ca/epls

University of Victoria Education

Youth Consent for Participation in the University of Victoria Peer Experiences and Connectedness Study

Dear Student,

Many middle school students at some point in their lives have had experiences with bullying. You are being asked to participate in a research study looking to understand bullying experiences and various factors associated with on- and off-line bullying among middle school students.

The study has two parts: a survey and an interview. If you choose to participate you will leave class for around 30 minutes with a researcher who will take you to a quiet room in the school to complete the survey. The survey/interview will ask you questions about who you are connected to, and how you interact with your peers in person and online.The types of questions I will be asking are not expected to be more stressful than the types of questions covered during discussions on bullying. The researcher will be available after the survey/interview for 30 minutes in case you have questions or concerns. The researcher will also provide you with their contact information so that you can contact them if you have questions or concerns later on.This survey/interview is part of a study of all of the Grade 7 and 8's in the Greater Victoria and Sooke School Districts. The researcher will also ask your parents for some background information about you and will ask your teacher about whether you receive any extra services or supports at school.

The study is completely voluntary and you can stop the survey at any time or refuse to answer any questions you don't want to answer. If you decide not to participate you do not need to give any explanation. If you choose to stop the survey or interview part way through, you will get to decide whether any of your answers can be used in our study.

Everything you say will be confidential, so no one will ever be able to connect your survey or interview responses with you. The only person who gets to see the survey responses at the end is their researcher and their supervisor. They will not tell your parents, your school, or anyone else what you say in the survey or your interview except in situations where they have concerns for your safety, someone else's safety, or in **situations where they are required, by law or professional obligation, to release information or to intervene. These exceptions include (a) probable harm to the student, (b) imminent harm to another person, or (c) records subpoenaed by court.**

If there are any questions that you don't understand or have trouble reading, I will be able to help you. You are free to withdraw from the study at any time during your completion of the survey or interview, or after you have completed both. If you choose to withdraw from

the study, you don't need to offer any explanation and will be asked at that time if you permit the use of the information we have gathered from you up to that point.

The types of questions I will be asking are not expected to be more stressful than the types of questions covered during class discussions on bullying. We do not know of any major risks involved in participating in this study, but just as with any sensitive topic, some of the questions may make you feel uncomfortable based on any negative peer experiences you've had. If you ever feel upset, you are completely welcome to take a break, stop the interview, talk with me about how you're feeling during or after the interview, or we can access support from a staff member you trust in the school. I will be available after the survey/interview for 30 minutes in case you have any questions, concerns or want to talk about anything afterwards. Also, I can give you my contact information in case you have any questions later on, when I am no longer at your school.

Your participation may help to inform ways we educate and protect middle school students, and how we prevent bullying and victimization among adolescents. Participants will be entered into a draw to win an iPad mini, as a thank you for participating in this study. Even if you decide to withdraw from the study, you will still receive your ballot for the draw.

Your parents and your teacher at school will know you are participating in this study. Your teacher at school will refer to the project as ***The Peer Experiences Study***, and your classmates may see you leaving class to participate in the study, but will not know anything about the study unless you choose to discuss it with them. The researcher will work with your teacher to make sure that when you complete the survey/interview, it won't interfere with your favourite or important school activities. At the end of the study, overall group results will be shared so that students, parents and school staff benefit from the information we learn. However, your individual results from this study will not be shared with anyone.

If you want to ask more about this, you or your parents can call Dr. Sarah Macoun at XXX-XXX-XXXX (sjmacoun@uvic.ca) or Laurissa Evancio Barker at XXX-XXX-XXXX (levanciobarker@sd61bc.ca). As well, people at the university are making sure that this project is approved and if you or your parents had any concerns, you could call the Human Research Ethics Office at the University of Victoria (250-472-4545). When you write your name on the line below, it means that you understood all the information about the study, and that you want to be in the study. Immediately prior to participating in the survey, the researcher will go over this consent form with you again to ensure it made sense and to answer any questions you have to be sure you still want to participate.

YES / NO I consent to participation in this research study.

Student's Name: _____
(First) (Last)

Student's Signature: _____

Date:_____

Appendix F: Use of Partial Student Responses Consent Form

University of Victoria

Department of Psychology
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Department of Educational Psychology and Leadership Studies
PO Box 1310 STN CSC
Victoria BC V8W 3N4
Tel (250) 721-7799; Fax (250) 721-6190
Web www.uvic.ca/epls

University of Victoria Education

Youth Consent to Use Partial Responses for the University of Victoria Peer Experiences and Connectedness Study

Dear Student,

Any participation in this study is helpful. Even if you have not completed the study, the responses you give help us to better understand ways we can educate and protect middle school students, to prevent bullying and victimization among adolescents. You will still be entered into a draw to win an iPad, as a thank you for participating in this study in the way you were able.

Even though you have decided not to complete the study, I am asking for your consent to use the partial responses you have given to help us to better understand bullying and victimization in middle school. Again, everything you say will be completely confidential, so no one will ever be able to connect your personal responses to you. The only person who gets to see the survey responses at the end is me. I am not allowed to tell your parents, your school, or anyone else anything you say in the survey or your interview. **Exceptions to confidentiality include situations where I am required, by law or professional obligation, to release information or to intervene. These exceptions include (a) probable harm to the student, (b) imminent harm to another person, or (c) records subpoenaed by court.**

YES / NO I consent to use of my responses for my partial participation in this research study.

Student's Name: _____
(First) (Last)

Student's Signature: _____

Date:_____

Appendix G: Parent Interview Script

Hello,

My name is Laurissa Evancio Barker. I'm a student who is completing my Master's in Special Education at the University of Victoria.I'm calling you because I received your consent to discuss your son/daughter for the study about on- and off-line bullying that I am conducting. Is right now a good time to chat? I only have a few questions for you that should only take 5 to 10 minutes of your time.

1. What is your child's date of birth?

2. Does your child have any special education needs?

3. Does your child have any mental health, medical, developmental or other diagnoses? If so, would you be willing to tell me what these are?

4. Does your child take any medications to support their mental health or special education needs?

If they have any special education needs or mental health diagnoses:

5. Does your child have an Individual Education Plan to support them at school?

6. Does your child receive any supports or services outside of school?

7. As far as you are aware, has your child been involved in any face-to-face bullying over the past year?

8. As far as you are aware, has your child been involved in any online bullying over the past year?

9. Are you currently concerned for your child's safety or another child's safety based on bullying experiences your child has discussed with you?

10. Do you feel like your child is especially connected to either a friend or friends, a teacher, or a family member?

Based on Telephone Interview…

Response If Child Meets Criteria: We are pleased to invite your child to participate in this study. Your child will be receiving a consent form that describes all of the study details so that they may also consent to participating in this study. For them to participate, we are grateful for your consent, but also would like theirs to ensure they are happily participating in the study and not feeling forced.

Response If Child Does Not Meet Criteria: Unfortunately, your child is not eligible to participate in this study at the current time. However, should other on-going studies occur for which you child would be eligible, we would be very happy to contact you if you are interested. If this is the case, we would be happy to take down your name and contact information or you are free to check back with us in the future about other ongoing studies.

Appendix H: Principal, Learning Support Teacher, or Counselor Script for Designations

Hello,

Further to the Peer Experiences and Connectedness Study that we are participating in with your school, I would like to ask you questions about those students who have returned their consent forms to ensure they are eligible to participate in the study. Since our study includes only students without special education needs diagnoses and designations, and students with Emotional and Behavioural Disorder special education needs (which we designate as IBI or MBS), I would like help identifying eligible students from those with returned consent forms. Do you have 15 minutes to do this now?

I will read a child's name. Then ask if this child has any mental health or special education needs diagnoses known to the school. Next I will ask if this child has a current special education needs designation. Finally, I will ask you if this child has an EBD designation, which would specifically be IBI (Intensive Behaviour Intervention) or MBS (Moderate Behaviour Support).

For each student, I will be indicating answers to your questions in this format:

Child's Name	**Parent Consent Received** ✓	**Mental Health or SEN Diagnosis Known?**	**Any Current School District SEN Designation?**	**EBD (IBI or MBS) Designation?**	**HOURS (PERCENTAGE) OF TIME RECEIVING SUPPORTS OUTSIDE OF CLASSROOM**

Appendix I: Script Read to Participant Pre- and Post-Survey and Interview

Upon Participant Entering Room:

Thank you for agreeing to complete the Peer Experiences and Connectedness Study.

The purpose of this study is to explore relationships and bullying experiences among middle school students. Your participation will help us to understand the experiences you have had with other students, in person and online. Your responses will also help us to understand how your relationships with students in your school, teachers or family affect the experiences you have had. This information will help us to better understand bullying experiences and hopefully reduce the chances of bullying from happening.Your answers will be kept separate from your name so everything you share today will be kept private.

The study begins with a survey that you will complete with a paper and pencil on your own. If you need any help understanding the questions, I'm here to help you. The first few questions ask you what grade you are in and how often you use the internet. After that, all of the questions ask you to respond with NEVER, RARELY, SOMETIMES, OFTEN, ALMOST ALWAYS. So, if you never do what it's asking, you check NEVER. If you do what its asking almost everyday, check ALMOST ALWAYS, and if you're somewhere in between, decide which best fits how often you do it. RARELY means hardly ever like maybe once a year. SOMETIMES means that you do it here and there; maybe a few times a month. OFTEN means it happens a lot; like a few times a week. Does that make sense? (If not, further clarify Likert scale or other questions.) Remember, it is important that you answer honestly for us to truly understand what is happening for people in middle school so we can work towards keeping you safer and happier. Also, keep in mind that your responses will be kept confidential UNLESS you indicate that you or someone else is in extreme danger, at which point I will need to let the right people know to keep everyone safe.

When you've completed the survey, I would like to ask you a few questions that will take about 5 minutes. As a thank-you for participating in this study, I'm raffling off one iPad mini to all participants. When you complete the survey, I will give you a ballot to fill-out. You are free to withdraw from the survey or interview at any time, but even if you decide to withdraw you will still be given you ballot to enter the iPad mini draw.

Are you ready to begin?

Upon Completion of Study

I really appreciate the time you have taken to participate in this study. The information you gave today may help us to better understand what its like in middle school and how we can prevent bullying and keep everyone happier in the future. That's a really important role.

Please fill out this ballot for the iPad mini before leaving (give ballot). I'll let you know if you've won by the end of the school year.

Appendix J: Script Read to and Process Followed if Participant Discloses Experience of Severe Harm

If a Child Indicates Severe Bullying or Severe Risk

It sounds to me like you are experiencing significant bullying. Do you feel safe? Is there an adult in the building that you feel especially safe talking with?

I am going to let your Principal know and 1-2 other teacher or a counselor that you are most connected to. My goal is to keep you safe, and the only exception to the confidentiality of your survey is if I see that you are unsafe or feeling extremely unsafe with good reason. Would you be willing to tell me the names of 1-2 teachers or counselors you are most connected to?

[Take student to Principal or other available teacher or counselor. Disclose information indicating harm to the Principal.]

[Support Administrative contact to police if information disclosed is illegal. Leave my contact information and the contact information of the school Principal.]

Appendix K: Peer Experiences and Connectedness Study (PECS) Survey

Peer Experiences and Connectedness Study (PECS) Survey

Demographic Information

Age _____ Gender: ❑ Female ❑ Male What is your current grade? ❑ 7th Grade ❑ 8th Grade

	Never	Rarely	Sometimes	Often	Almost Always
1. How often do you receive extra help within your classroom at school from a Learning Support Teacher, or Counsellor?					
2. How often do you receive extra help outside of your classroom at school from a Learning Support Teacher, or Counsellor?					

Internet Use

3. On a usual day, how many hours do you spend online?	**0-2 hours**	**2-4 hours**	**4-6 hours**	**6-8 hours**	**8 + hours**

Online Behaviours

In the past year, how often did I…	**Never**	**Rarely**	**Sometimes**	**Often**	**Almost Always**
4. Make rude or nasty comments to someone online?					
5. Use the Internet or texting to be mean or to embarrass someone I was mad at?					
6. Spread rumours about someone through online or in texts, whether or not they were true?					
7. Make aggressive or threatening comments to someone online?					
8. Send someone a text that said rude or mean things.					
9. Share something about someone with others online that was meant to be private?					
10. Post or forward a video or picture of someone (online or through texts) that would hurt or embarrass them?					

11. Make fun of someone else on a social media or gaming site?					

In the past year, how often did someone…	**Never**	**Rarely**	**Sometimes**	**Often**	**Almost Always**
12. Make rude or mean comments to me online (i.e. facebook, instagram, chat rooms, gaming, etc.)?					
13. Use the Internet or texting to be mean to me or embarrass me?					
14. Spread rumours about me online or through texts, whether or not they were true?					
15. Shared something about me with others online that was meant to be private?					
16. Posted or forwarded a video or picture of me to others that hurt or embarrassed me?					
17. Make a threatening or aggressive comment to me online (i.e. facebook, instagram, chat rooms, gaming, etc.)?					
18. Send me a text that said rude or mean things.					
19. Make me feel worried because they were bothering me online?					

Face-to-Face Behaviours

In the past year, …	**Never**	**Rarely**	**Sometimes**	**Often**	**Almost Always**
20. I picked on another student, on my own.					
21. I teased another student, when others were watching.					
22. I started fights with another student I was stronger than.					
23. I got in a physical fight.					
24. I spread rumors about another student.					
25. I started an argument or conflict with another student.					
26. I joined someone else to pick on another student					
27. I hit back when someone hit me first.					
28. I threatened to hurt or hit another					

student.					
29. I got in a physical fight because I was angry.					

	Never	**Rarely**	**Sometimes**	**Often**	**Almost Always**
30. I lost my temper and took it out on another student that was weaker than me.					
31. I encouraged people to fight.					
32. I teased another student.					
33. I was mean to someone when I was angry.					
34. I told lies about a classmate so that other kids wouldn't like that classmate.					
35. I tried to keep certain people from being in my group when it was time to hang out or do an activity.					
36. I told my friends that I would stop liking them unless they did what I said.					
37. I tried to keep others from liking a classmate by saying mean things about him or her.					

In the past year, …	**Never**	**Rarely**	**Sometimes**	**Often**	**Almost Always**
38. Other students picked on me.					
39. Other students called me names.					
40. I got hit and pushed by other students.					
41. I was left out on purpose when it was time to do an activity, or hang out.					
42. A kid who was mad at me got back at me by not including me.					

43. Another kid said he/she wouldn't like me unless I did what he/she wanted me to do.					
44. Another kid tried to keep others from liking me by saying mean things about me?					
45. Another kid told lies about me to make other kids not like me anymore.					

Connections and Social Support

How many people in your life fit the following descriptions?

	Never	**Rarely**	**Sometimes**	**Often**	**Almost Always**
46. At school, there are adults that…					
a) I can talk to when I'm happy and when I feel left out, upset or hurt.					
b) care about my feelings and what happens to me.					
c) give good suggestions and advice when I need help.					
47. In my family, there are people that…					
a) I can talk to when I'm happy and when I feel left out, upset or hurt.					
b) care about my feelings and what happens to me.					
c) give good suggestions and advice when I need help.					
48. I have friends that…					
a) I can talk to when I'm happy and when I feel left out, upset or hurt.					
b) care about my feelings and what happens to me.					
c) give good suggestions and advice when I need help.					

Appendix L: Peer Experiences and Connectedness Study (PECS) Interview

Peer Experiences and Connectedness Study (PECS) Interview

Face-to-Face Victimization
Tell me about your experiences when you felt like you were being bullied by others.

Face-to-Face Bullying
Tell me about when you were mean to the same person several times.

Online Bullying
Tell me about your experiences making negative comments to someone else online.

Online Victimization
Tell me about your experiences online where someone else was being mean to you.

Connectedness
Tell me about who you are closest to (i.e. teacher, friend or friends, family)?

Programming
How does it make you feel when you get extra support from a school staff member (EA, Teacher, Learning Support Teacher, Counselor, Behaviour Support Teacher, etc.) outside of the classroom? How about when you receive that support inside the classroom? Explain.

Appendix M: Peer Experiences and Connectedness Survey (PECS) Scales with Original UISBS and YISS Questions

Scale 1: Cyberbullying Behaviours

UISBS and YISS Original Questions, with Cronbach's alpha values	PECS Questions (differences bolded), with Cronbach's alpha values
1. Cyberbullying Behaviours (α = .81-.88)	**1. Cyberbullying Behaviours (α = .796)**
UISBS Cyberbullying Questions	
During the past year, how often, **if at all**, did **you do the following things to others**? Made rude comments to anyone online.	**In** the past year, how often did **I** make rude **or nasty** comments to **someone** online?
During the past year, how often, **if at all**, did **you do the following things to others?** Spread rumors about someone online, whether they were true **or not**. (***YISS:*** In the past year, how many times did you spread rumors about someone through the Internet, whether they were true or not?)	**In** the past year, how often did **I** spread rumours about someone online **or in texts**, whether **or not** they were true?
During the past year, how often, **if at all**, did **you do the following things to others**? Made aggressive or threatening comments to anyone online.	**In** the past year, how often did **I** make aggressive or threatening comments to **someone** online?
YISS Internet Harassment Questions	
In the past year, how many times did you use the Internet to harass or embarrass someone you were mad at?	In the past year, how **often** did **I** use the Internet **or texting to be mean** or to embarrass someone **I** was mad at?
In the past year, how many times have you made rude or nasty comments to someone on the Internet?	In the past year, how **often did I send** someone **a text that said** rude or **mean things**?
In the past year, how many times did you share something about someone with others online that was meant to be private?	In the past year, how **often** did **I** share something about someone with others online that was meant to be private?
In the past year, how many times did you post or forward a video or picture of someone online that showed them being hurt (by things like being hit or kicked) or embarrassed (by things like having their pants pulled down) for other people to see?	In the past year, how **often** did **I** post or forward a video or picture of someone **(**online **or through texts) that would hurt or embarrass them**?
In the past year, were you involved in a group on a social networking site or other online site where the focus was making fun of someone else…in any of the following ways…by starting a group, by joining a group that someone else started, by commenting in a group that someone else started.	In the past year, **how often did I** make fun of someone else on a **social media or gaming site**?

Scale 2: Cybervictimization Behaviours.

UISBS and YISS Original Scales with Cronbach's alpha values	PECS Questions (differences bolded) with Cronbach's alpha values
2. Cybervictimization Behaviours (α = .85-.93)	**2. Cybervictimization Behaviours (α = .853)**
UISBS Cybervictimization Questions	
During the past year, how often**, if at all,** someone **do the following things to you?** Someone made a rude or mean comment to me online.	**In** the past year, how often **did** someone make rude or mean comment**s** to me online?
During the past year, how often**, if at all,** someone **do the following things to you?** Someone made a threatening or aggressive comment to me online.	**In** the past year, how often **did** someone make a threatening or aggressive comment to me online?
YISS Cybervictimization Questions	
In the past year, how many times did you use the Internet to harass or embarrass someone you were mad at?	In the past year, how **often** did someone use the Internet or texting to be mean to me or embarrass **me**?
As a part of what happened, did the person who did this ever spread rumours about you, whether they were true or not?	**In the past year, how often** did **someone** spread rumours about **me online or through texts**, whether or not they were true?
As a part of what happened, did the person who did this ever share with others something that was meant to be private (something you wrote or a picture of you)?	**In the past year, how often** did **someone** share something **about me with others online** that was meant to be private?
As a part of what happened, did the person who did this ever send a picture or video to other people that showed you being hurt or embarrassed?	**In the past year, how often** did **someone post or forward** a video or picture **of me** to others that **hurt or embarrassed me**?
In the past year, how many times have you made rude or nasty comments to someone on the Internet?	In the past year, how **often did someone send me a text that said** rude or mean things.
In the past year, did you ever feel worried or threatened because someone was bothering or harassing you online?	In the past year, **how often did someone make me** feel worried because they were bothering me online?

Scale 3: Face-to-Face Bullying Behaviours.

UISBS Original Scales with Cronbach's alpha values	PECS Questions (differences bolded) with Cronbach's alpha values
3. Face-to-Face Bullying Behaviours (Bullying α = .81-.88, Fight α = .70, Anger α = .81)	**3. Face-to-Face Bullying Behaviours (α = .855)**
UISBS Bullying Behaviours Questions	
For each of the following questions, choose how many times you did this activity or how many times these things happened to you at school in the LAST 30 DAYS.	
I teased other students.	**In the past year,** I **picked on another** student**, on my own.**
I started (instigated) arguments or conflicts.	**In the past year,** I teased **another** student.
I spread rumours about other students.	**In the past year,** I started **an** argument or conflict **with another student.**
In a group I teased other students.	**In the past year,** I spread rumors about **another** student.
	In the past year, I joined someone else to pick on another student.
	In the past year, I teased another student**, in a group.**
I threatened to hurt or hit another student.	**In the past year,** I threatened to hurt or hit another student.
I encouraged people to fight.	**In the past year,** I encouraged people to fight.
I told lies about a classmate so that the other kids wouldn't like the classmate anymore.	**In the past year**, I told lies about a classmate so that other kids wouldn't like that classmate.
I tried to keep certain people from being in my group when it was time to hang out or do an activity.	**In the past year,** I tried to keep certain people from being in my group when it was time to hang out or do an activity.
I told my friends that I would stop liking them unless they did what I said.	**In the past year,** I told my friends that I would stop liking them unless they did what I said.
I tried to keep others from liking a classmate by saying mean things about him/her.	**In the past year,** I tried to keep others from liking a classmate by saying mean things about him or her.
UISBS Fighting Behaviours Questions	
I fought other students I could easily beat.	**In the past year,** I **started fights with another** student I **was stronger than**.
I got in a physical fight.	**In the past year,** I got in a physical fight.
I hit back when someone hit me first.	**In the past year,** I hit back when someone hit me first.
UISBS Anger/Aggressive Behaviours Questions	
I got in a physical fight because I was angry.	**In the past year,** I got in a physical fight because I was angry.
I lost my temper for no reason.	**In the past year,** I lost my temper **and took it out on another student that was weaker than me.**
I was mean to someone when I was angry.	
I fought other students I could easily beat.	
I was mean to someone when I was angry.	**In the past year,** I was mean to someone when I was angry.

Scale 4: Face-to-Face Victimization Behaviours.

UISBS Original Scales with Cronbach's alpha values	PECS Questions (differences bolded) with Cronbach's alpha values
4. Face-to-Face Victimization Behaviours (α = .85-.93)	**4. Face-to-Face Victimization Behaviours (α = .870)**
For each of the following questions, choose how many times you did this activity or how many times these things happened to you at school in the LAST 30 DAYS.	
Other students picked on me.	**In the past year,** other students picked on me.
Other students called me names.	**In the past year**, other students called me names.
I got hit and pushed by other students.	**In the past year,** I got hit and pushed by other students.
I was left out on purpose when it was time to play or do an activity.	**In the past year,** I was left out on purpose when it was time to do an activity, or hang out.
Anotehr kid who was mad at me got back at me by not letting me be in his/her group anymore.	**In the past year,** a kid who was mad at me got back at me by not including me.
Another kid said he/she wouldn't like me unless I did what he/she wanted me to do.	**In the past year,** another kid said he/she wouldn't like me unless I did what he/she wanted me to do.
Another kid tried to keep others from liking me by saying mean things about me.	**In the past year,** another kid tried to keep others from liking me by saying mean things about me.
Another kid told lies about me to make other kids not like me anymore.	**In the past year,** another kid told lies about me to make other kids not like me anymore.

Scale 5 with 3 Subscales: Connectedness and Social Support.

UISBS Original Scales (differences bolded) with Cronbach's alpha values	PECS Questions with Cronbach's alpha values
5. Connectedness and Social Support (C.School α = .79, C.Family. α = .82, C.Friends α = .87)	**5. Connectedness and Social Support (α = .796)**
At school, there are adults I can talk to, **who care about my feelings and what happens to me.**	At school, there are adults that I can talk to.
At school, there are adults **I can talk to, who** care about my feelings and what happens to me.	At school, there are adults that care about my feelings and what happens to me.
At school, there are adults **I can talk to, who** give good suggestions and advice about my problems.	At school, there are adults that give good suggestions and advice when I need help.
There are people in my family I can talk to**, who care about my feelings and what happens to me.**	In my family, there are people that I can talk to.
There are people in my family **I can talk to,** who care about my feelings and what happens to me.	In my family, there are people that care about my feelings and what happens to me.
There are people in my family **I can talk to**, **who** give me good suggestions and advice about my problems.	In my family, there are people that give good suggestions and advice when I need help.
I have friends I can talk to, **who care about my feelings and what happens to me.**	I have friends that I can talk to.
I have friends **I can talk to, who** care about my feelings and what happens to me.	I have friends that care about my feelings and what happens to me.
I have friends **I can talk to, who** give good suggestions and advice about my problems.	I have friends that give good suggestions and advice when I need help.

Appendix N: Data Collection Excel Descriptors and Scale Explanation

Excel Column	Descriptor	Descriptor Explanation	Scale Explanation
A	Identifier Coded	Participant Number	016117 – 2106117
B	School	Coded Participating School	1-10
C	IBI=Y-1, N-0	Y= Yes N= No	1 = Student is IBI 0 = Student is NOT IBI
D	Incl-1,Seg-2	Inclusive Programming in the General Education Classroom versus Segregated Programming in a District Behaviour Program	1=Inclusion 2=Segregated
D	Non-0,G-1,PDCH-2,LD-3	Non-Designated versus Designation (G=Gifted, PDCH=Physical Disability or Chronic Health, LD=Learning Disability, MID=Mild Intellectual Disability)	0=Non 1=Gifted 2=PDCH 3=LD 4=MID
F	Age	Age	11-15
G	Gen=F1,M2	Gender	1=Female 2=Male
H	Grade	Grade	6=Grade 6 7= Grade 7 8=Grade 8
Survey is designed with a 5-Point Likert Scale (Never, Rarely, Sometimes, Often, Almost Always), with the exception of demographic information and Question 3: Never=Never in the past year Rarely=A few times a year Sometimes=A few times a month, or monthly Often=A few time a week, or weekly Almost Always=Almost everyday			1= Never 2= Rarely 3= Sometimes 4= Often 5 = Almost Always
I	Inclusion LST	Amount of time receiving support in a whole class setting from a learning support	1-5 Likert Scale

		teacher Q2: **How often do you receive extra help within your classroom at school from a Learning Support Teacher or Counselor?**	
J	Pull-out LST	Amount of time receiving learning support in a pull-out program outside of the general education classroom Q2: **How often do you receive extra help outside of your classroom at school (e.g. Learning support teacher's room, counselor, etc.)**	1-5 Likert Scale
K	Hours Online	Hours spent online, including SMS, gaming, internet research, You tube-watching, texting, emailing, etc. Q3: **On a usual day, how many hours do you spend online?**	0-2 Hours=0-2 hours online 2-4 Hours = 2-4 hours online 4-6 hours=4-6 hours online 6-8 Hours = 6-8 hours online 8+ Hours = 8+ hours online
L	IP-Rude	Online Bullying Perpetration Behaviours Q4: **In the past year, how often did I Make rude or nasty comments to someone online?**	1-5 Likert Scale
M	IP Embarrass	Online Bullying Perpetration Behaviours Q5: **In the past year, how often did I Use the Internet or texting to be mean or to embarrass someone I was mad at?**	1-5 Likert Scale
N	IP-Rumours	Online Bullying Perpetration Behaviours Q6: **In the**	1-5 Likert Scale

		past year, how often did I Spread rumours about someone online or in texts, whether or not they were true?	
O	IP-Threat	Online Bullying Perpetration Behaviours Q7: **In the past year, how often did I Make aggressive or threatening comments to someone online?**	1-5 Likert Scale
P	IP-MeanTx	Online Bullying Perpetration Behaviours Q8: **In the past year, how often did I Send someone a text that said rude or mean things.**	1-5 Likert Scale
Q	IP-PrivShare	Online Bullying Perpetration Behaviours Q9: **In the past year, how often did I Share something about someone with others online that was meant to be private?**	1-5 Likert Scale
R	IP-PostPic	Online Bullying Perpetration Behaviours Q10: **In the past year, how often did I Post or forward a video or picture of someone (online or through texts) that would hurt or embarrass them?**	1-5 Likert Scale
S	IP-SMS-G	Online Bullying Perpetration Behaviours Q11: **In the past year, how often did I Make fun of someone else on a social media or gaming site?**	1-5 Likert Scale
T	IV-Rude	Online Victimization Q12: **In the past year, how often did someone Make rude or mean comments to me online?**	1-5 Likert Scale

U	IV-Embaras	Online Victimization Q13: **In the past year, how often did someone Use the Internet or texting to be mean to me or embarrass me?**	1-5 Likert Scale
V	IV-Rumours	Online Victimization Q14: **In the past year, how often did someone Spread rumours about me online or through texts, whether or not they were true?**	1-5 Likert Scale
W	IV-PrivShare	Online Victimization Q15: **In the past year, how often did someone Shared something about me with others online that was meant to be private?**	1-5 Likert Scale
X	IV-PostPic	Online Victimization Q16: **In the past year, how often did someone Posted or forwarded a video or picture of me to others that hurt or embarrassed me?**	1-5 Likert Scale
Y	IV-Threat	Online Victimization Q17: **In the past year, how often did someone Make a threatening or aggressive comment to me online?**	1-5 Likert Scale
Z	IV-MeanTx	Online Victimization Q18: **In the past year, how often did someone send me a text that said rude or mean things.**	1-5 Likert Scale
AA	IV-Worried	Online Victimization Q19: **In the past year, how often did someone make me feel worried because they were bothering me online?**	1-5 Likert Scale
AB	FP-TeasAlon	Face-2-Face Bullying Behaviours Q20: **In the past year, I picked on another student, on my own.**	1-5 Likert Scale

AC	FP-TeasGrp	Face-2-Face Bullying Behaviours Q21: **In the past year, I teased another student, in a group.**	1-5 Likert Scale
AD	FP-StartFight	Face-2-Face Bullying Behaviours Q22: **In the past year, I started fights with another student I was stronger than.**	1-5 Likert Scale
AE	FP-PhyFight	Face-2-Face Bullying Behaviours Q23: **In the past year, I got in a physical fight.**	1-5 Likert Scale
AF	FP-Rumour	Face-2-Face Bullying Behaviours Q24: **In the past year, I spread rumors about another student.**	1-5 Likert Scale
AG	FP-Argue	Face-2-Face Bullying Behaviours Q25: **In the past year, I started an arguments or conflicts with another student.**	1-5 Likert Scale
AH	FP-JoinPick	Face-2-Face Bullying Behaviours Q26: **In the past year, I joined someone else to pick on another student.**	1-5 Likert Scale
AI	FP-Hit	Face-2-Face Bullying Behaviours Q27: **In the past year, I hit back when someone hit me first.**	1-5 Likert Scale
AJ	FP-Threat	Face-2-Face Bullying Behaviours Q28: **In the past year, I threatened to hurt or hit another student.**	1-5 Likert Scale
AK	FP-FightAng	Face-2-Face Bullying Behaviours Q29: **In the past year, I got in a physical fight because I was angry.**	1-5 Likert Scale
AL	FP-Temper	Face-2-Face Bullying Behaviours Q30: **In the past year, I lost my temper and took it out on another student that was weaker**	1-5 Likert Scale

		than me.	
AM	FP-EncFight	Face-2-Face Bullying Behaviours Q31: **In the past year, I encouraged people to fight.**	1-5 Likert Scale
AN	FP-Tease	Face-2-Face Bullying Behaviours Q32: **In the past year, I teased another student.**	1-5 Likert Scale
AO	FP-MeanAng	Face-2-Face Bullying Behaviours Q33: **In the past year, I was mean to someone when I was angry.**	1-5 Likert Scale
AP	FP-Lies	Face-2-Face Bullying Behaviours Q34: **In the past year, I told lies about a classmate so that other kids wouldn't like that classmate.**	1-5 Likert Scale
AQ	FP-Exclude	Face-2-Face Bullying Behaviours Q35: **In the past year, I tried to keep certain people from being in my group when it was time to hang out or do an activity.**	1-5 Likert Scale
AR	FP-StopLike	Face-2-Face Bullying Behaviours Q36: **In the past year, I told my friends that I would stop liking them unless they did what I said.**	1-5 Likert Scale
AS	FP-EncExcl	Face-2-Face Bullying Behaviours Q37: **In the past year, I tried to keep others from liking a classmate by saying mean things about him or her.**	1-5 Likert Scale
AT	FV-PickonOn	Face-2-Face Victimization Q38: **In the past year, other students picked on me.**	1-5 Likert Scale
AU	FV-Names	Face-2-Face Victimization Q39: **In the past year, other**	1-5 Likert Scale

		students called me names.	
AV	FV-Hit	Face-2-Face Victimization Q40: **In the past year, I got hit and pushed by other students.**	1-5 Likert Scale
AW	FV-Exclude	Face-2-Face Victimization Q41: **In the past year, I was left out on purpose when it was time to do an activity, or hang out.**	1-5 Likert Scale
AX	FV-MadExcl	Face-2-Face Victimization Q42: **In the past year, a kid who was mad at me got back at me by not including me.**	1-5 Likert Scale
AY	FV-Threat	Face-2-Face Victimization Q43: **In the past year, another kid said he/she wouldn't like me unless I did what he/she wanted me to do.**	1-5 Likert Scale
AZ	FV-EncExcl	Face-2-Face Victimization Q44: **In the past year, another kid tried to keep others from liking me by saying mean things about me?**	1-5 Likert Scale
BA	FV-Lies	Face-2-Face Victimization Q45: **In the past year, another kid told lies about me to make other kids not like me anymore.**	1-5 Likert Scale
BB	CS-Talk	Connections and Support at School Q46a: **At school, there are adults that I can talk to.**	1-5 Likert Scale
BC	CS-Care	Connections and Support at School Q46b: **At school, there are adults that care about my feelings and what happens to me.**	1-5 Likert Scale
BD	CS-Advice	Connections and Support at School Q46c:	1-5 Likert Scale

		At school, there are adults that give good suggestions and advice when I need help.	
BE	CFAM-Talk	Connections and Support with Family Q47a: **In my family, there are people that I can talk to.**	1-5 Likert Scale
BF	CFAM-Care	Connections and Support with Family Q47b**: In my family, there are people that care about my feelings and what happens to me.**	1-5 Likert Scale
BG	CFAM-Advice	Connections and Support with Family Q47c: **In my family, there are people that give good suggestions and advice when I need help.**	1-5 Likert Scale
BH	CFR-Talk	Connections and Support with Friends Q48a: **I have friends that I can talk to.**	1-5 Likert Scale
BI	CFR-Talk	Connections and Support with Friends Q48b: **I have friends that care about my feelings and what happens to me.**	1-5 Likert Scale
BJ	CFR-Talk	Connections and Support with Friends Q48c: **I have friends that give good suggestions and advice when I need help.**	1-5 Likert Scale

How YOU Can Get Involved

How to Get Involved?

1. Parents complete the Peer Experiences and Connectedness Study PARENT CONSENT FORM and consent to be contacted for a brief interview to make sure your child is eligible.
2. Students complete the Peer Experiences and Connectedness Study YOUTH CONSENT FORM with parents or guardians at home.
3. Youth complete a survey and interview at the school during school hours about peer-conflict experiences and positive connectedness.

Incentive for Participating

- Each participating student will be entered into a draw for an iPad mini.

What If You Change Your Mind?

- You or your child can withdraw from the study at any time if you or your child changes their mind.

Questions, Concerns, or to Discuss the Research Study? Please Contact Us!

Laurissa Evancio Barker

Principal Investigator

[redacted]

levanciobarker@sd61.bc.ca

Dr. Sarah Macoun

Advisor and Professor at UVIC

250-721-7534

sjmacoun@uvic.ca

Thank you for taking the time to consider participating in this study!

Peer Experiences and Connectedness Study

A University of Victoria Research Study Examining Risks and Protective Factors for On- and Off-line Bullying Involvement Among Adolescents in the Greater Victoria Area

Peer Experiences and Connectedness Research Study

The Purpose of this Study. Bullying profoundly impacts the development and long-term health of involved youth. It is particularly damaging for adolescents with special education needs, who are at twice the risk of bullying involvement compared to their peers without special education needs. As a Learning Support Teacher and a parent of two children, I am passionate about supporting children's success in multiple academic and social-emotional ways, which includes protecting them from bullying involvement. Therefore, as a Graduate student at the University of Victoria, I focused my research on understanding factors placing youth at greatest risk and factors protecting youth from on- and off-line bullying involvement. With this research study, I hope we will gain more information to better understand youth experiences with peers on- and off-line, so that we are able to promote more empathic programming towards the effective prevention of bullying behaviours and involvement among our most vulnerable youth. In so doing, we will be in a better position to prevent harm to all adolescents.

How the Study Works

Who?

- ALL Grade 7 and 8 students in the Greater Victoria and Sooke School Districts.
- Grade 7 and 8 students with Emotional and Behavioral Special Education Needs

What?

- A student survey and brief interview about on- and off-line bullying experiences, and the presence of connections with friends, family and teachers
- A brief parent interview

How? Where? When?

- I will personally conduct each survey and interview, one-on-one, with each student.
- Each survey and interview will be conducted in a quiet space at the school, during school hours.
- I will ensure students do not miss their favourite or most important learning times.

Does My Child *Have* to Participate?

No. Your child's participation is entirely voluntary. BOTH YOU AND YOUR CHILD NEED TO CONSENT to participate to be eligible to participate.

Who will see my child's responses?

- All participants' responses will be treated with PRIVACY and STRICT CONFIDENTIALITY.
- Participants' ANONYMITY is GUARANTEED.
- Individual names or identifying information WILL NOT be included in any of the information gathered or shared from this project.
- Exceptions to confidentiality only include situations where I am required by law to intervene and protect individuals, including: 1) probable harm to the participant, 2) imminent harm to another person, or 3) records subpoenaed by a court.

How will research be shared?

Results from this study may be published in a journal or scholarly meeting, and will be shared with the school districts and participating families.

University of Victoria | Office of Research Services | Human Research Ethics Board
Administrative Services Building Rm B202 PO Box 1700 STN CSC Victoria BC V8W 2Y2 Canada
T 250-472-4545 | F 250-721-8960 | uvic.ca/research | ethics@uvic.ca

Certificate of Approval

PRINCIPAL INVESTIGATOR:	**Laurissa Evancio Barker**	**ETHICS PROTOCOL NUMBER** Minimal Risk Review - Board members	**17-098**
UVic STATUS:	**Master's Student**	ORIGINAL APPROVAL DATE:	20-Apr-17
UVic DEPARTMENT:	**EPLS**	APPROVED ON:	20-Apr-17
SUPERVISOR:	**Sarah Macoun**	APPROVAL EXPIRY DATE:	19-Apr-18

PROJECT TITLE: **Dimensions of On-and Off-line Bullying Behaviours Among Adolescents with Emotional and Behavioral Disorders**

RESEARCH TEAM MEMBER None

DECLARED PROJECT FUNDING: **None**

CONDITIONS OF APPROVAL

This Certificate of Approval is valid for the above term provided there is no change in the protocol.

Modifications
To make any changes to the approved research procedures in your study, please submit a "Request for Modification" form. You must receive ethics approval before proceeding with your modified protocol.

Renewals
Your ethics approval must be current for the period during which you are recruiting participants or collecting data. To renew your protocol, please submit a "Request for Renewal" form before the expiry date on your certificate. You will be sent an emailed reminder prompting you to renew your protocol about six weeks before your expiry date.

Project Closures
When you have completed all data collection activities and will have no further contact with participants, please notify the Human Research Ethics Board by submitting a "Notice of Project Completion" form.

Certification

This certifies that the UVic Human Research Ethics Board has examined this research protocol and concluded that, in all respects, the proposed research meets the appropriate standards of ethics as outlined by the University of Victoria Research Regulations Involving Human Participants.

[redacted]

Dr. Rachael Scarth
Associate Vice-President Research Operations

Certificate Issued On: 20-Apr-17

17-098 Evancio Barker, Laurissa

Greater VICTORIA School District

OFFICE OF THE
ASSOCIATE SUPERINTENDENT
556 BOLESKINE ROAD VICTORIA, BC V8Z 1E8 FAX (250) 475-4115
Associate Superintendent's Office (250) 475-4220

April 24, 2017

Laurissa Evancio Barker
[redacted]

Dear Laurissa:

Thank you for your recent application regarding your research project, *Peer Experiences and Connectedness Study*.

Please be advised that your application has been approved to conduct research at the following middle Schools:

Shoreline Middle School
Cedar Hill Middle School
Monterey Middle School
Lansdowne Middle School
Gordon Head Middle School
Glanford Middle School
Rockheights Middle School

Permission to proceed with this project is granted during the 2016-2017 school year.

I wish you success with your studies.

Sincerely,

Greg Kitchen
Associate Superintendent

GK/tc

Cc: Shoreline Middle School
Cedar Hill Middle School
Monterey Middle School
Lansdowne Middle School
Gordon Head Middle School
Glanford Middle School
Rockheights Middle School
Tina Carleton, Research Dept.

SCHOOL DISTRICT NO. 62 (SOOKE)
3143 JACKLIN ROAD,
VICTORIA, BRITISH COLUMBIA • V9B 5R1
TELEPHONE: 250-474-9800 FAX: 474-9825
WEBSITE: WWW.SD62.BC.CA

May 17, 2017

Ms. Laurissa Evancio Barker
Principal Research Investigator
UVic Dept. of Psychology
levanciobarker@sd61.bc.ca

Dear Ms. Evancio Barker:

Re: Permission to Conduct Your Master's Research Project

Please accept this letter as permission to conduct your research project entitled "Peer Experiences and Connectedness" in our school district. Once completed, it would be appreciated if you could give me a copy of your report.

Best wishes for a successful project.

Sincerely,

[redacted]

Jim Cambridge
Superintendent of
Schools

JC/jf