

**THE ROLE OF DISCIPLINE PRACTICES IN STUDENT
CONNECTEDNESS TO SCHOOL, BULLYING AND VICTIMIZATION**

by

Svetlana Konopljova

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

The Faculty of Graduate and Postdoctoral Studies

(Human Development, Learning and Culture)

THE UNIVERSITY OF BRITISH COLUMBIA
(Vancouver)

December 2017

© Svetlana Konopljova, 2017

Abstract

In light of compelling empirical evidence, school connectedness is a strong protective factor, negatively associated with a range of students' risky and violent behaviours, and a powerful predictor of student psychological wellbeing and academic achievement. In contrast, prevalence of interpersonal aggression and peer victimization are major threats to student engagement and positive school climate. This study argues that teachers' approach to school discipline is an important determinant of students' connectedness to school as well as of quality of their interpersonal dynamics, and explores how student perceptions of positive and negative discipline strategies predict their feelings of school connectedness as well as rates of involvement in bullying and victimization. Elementary students ($N = 2303$, grades 4-7) from 18 participating schools in a single school district responded to self-report measures of connectedness, bullying, victimization, and discipline practices as a part of a larger project on School Climate and Bullying. Results of Hierarchical Linear Regression analyses indicated that discipline practices accounted for 43% of variance in school connectedness, 8% of the variance in bullying and 15% of the variance in victimization, after controlling for sex, grade and school differences. Greater school connectedness was most strongly predicted by restorative discipline and fairness, whereas higher reports of bullying and victimization were predicted by low fairness, use of punitive discipline or perceived lack of discipline by students. Overall, these findings provide new evidence concerning the role of school discipline, and suggest important implications for teachers and educational professionals.

Lay Summary

This study looked at how students' perceptions of teachers' quotidian approaches to school discipline relate to students' connectedness to school, as well as their bullying behaviours and experiences of victimization. It was found that students who were connected to school, viewed discipline practices as often fair, consistent, typically restorative in style and high on behavioural boundaries. In contrast, students who perceived discipline lacking consistency, fairness and reported frequent use of punitive strategies, admitted to frequently bully others and/ or themselves experienced high rates of victimization. The study highlights the crucial role of school discipline in students' interpersonal dynamics, and urges teachers to shift their discipline approaches to more proactive and restorative practices that focus on building sense of community and positive interpersonal connections. Additionally, the study advocates for a shift in school policies and teacher-education towards a more student-centered model.

Preface

This thesis is the original, unpublished, intellectual product of the author, Svetlana Konopljova.

The data for the current study was collected in spring 2017 by myself and the colleagues from Social Emotional Education and Development lab, as a part of the ongoing School Climate and Bullying project supervised by Dr. Shelley Hymel and conducted in collaboration with schools from Lower Mainland BC. It was used secondarily for the purpose of this research.

The discipline measure (described in section 3.6.1 and presented in Appendix B) was developed for the purpose of this study in collaboration with Dr. Shelley Hymel and with the feedback from members of Social Emotional Education and Development research group. It is due for further elaboration and validation.

Ethical approval for this study was granted by the UBC Behavioural Research Ethics Board [BREB # H15-03336].

Table of Contents

Abstract	ii
Lay Summary	iii
Preface	iv
Table of Contents	v
List of Tables	vi
List of Figures	vii
Acknowledgements	viii
Dedication	ix
1. Introduction	1
2. Literature Review	3
2.1. School connectedness and its pervasive enemy – Bullying.....	3
2.2. An elusive element in bullying prevention: Teacher.....	5
2.3. Classroom management and teacher discipline practices.....	6
2.4. Traditional approaches to discipline.....	7
2.4.1. Use of punishments and consequences as a discipline approach.....	8
2.4.2. School-wide positive behavior interventions and supports.....	9
2.5. Alternative views of discipline.....	11
2.5.1. Self-discipline through social and emotional development.....	11
2.5.2. Discipline for the common good: Belonging in focus.....	12
2.5.3. Overview of positive discipline approaches.....	14
2.6. Restorative practices in schools.....	16
2.6.1. Evidence for restorative practices in schools.....	17
3. Current Study	23
3.1. Overview.....	23
3.2. Hypotheses.....	24
3.3. Method.....	24
3.4. Participants.....	25
3.5. Procedure.....	26
3.6. Measures.....	27
3.6.1. Discipline measure.....	27
3.6.2. School connectedness measure.....	28
3.6.3. Bullying and victimization measure.....	28
4. Results	30
4.1. Factor analysis.....	30
4.2. Descriptive Statistics.....	35
4.3. Correlational analyses.....	35
4.4. Preliminary analyses.....	37
4.5. Assumptions of multiple regression analyses.....	38
4.6. Primary analyses.....	40

5. Discussion	44
5.1. Strengths, limitations and future directions	53
5.2. Concluding remarks and implications	55
References	57
Appendices	68
Appendix A: Original List of Discipline Questions, Separated by Construct	68
Appendix B: Discipline Measure as in the Actual Survey	70
Appendix C: Connectedness Measure as in the Actual Survey	73
Appendix D: Bullying and Victimization Measures as in the Actual Survey	74

List of Tables

Table 1.	Principle Component factor analysis with Direct Oblimin rotation. Pattern matrix	32
Table 2.	Reliability and descriptive statistics for all composite variables.....	34
Table 3.	Bivariate Pearson product moment correlations between variables	36
Table 4.	One-way between groups ANOVAs of connectedness, bullying and victimization by sex, grade and school.....	37
Table 5.	Hierarchical multiple regression analyses predicting connectedness from six discipline strategies (accounting for sex, grade, school)	41
Table 6.	Hierarchical multiple regression analyses predicting bullying from six discipline strategies (accounting for sex, grade, school)	42
Table 7.	Hierarchical multiple regression analyses predicting victimization from six discipline strategies (accounting for sex, grade, school)	43

List of Figures

Figure 1.	Social capital as a basis of social discipline	16
-----------	--	----

Acknowledgements

I would like to express my deepest gratitude to my thesis advisor, Dr. Shelley Hymel, for her warm welcome, immense support, her detailed and sincere feedback, and expert guidance throughout this project. This work could not have been successfully completed without your continuous encouragement and your confidence in my aspirations and me. Thank you!

I would like to extend my sincere thanks for the rest of my committee members: Dr. Kimberly Schonert-Reichl – for inspiring me to take on this degree and her support during my first two years, and Dr. Brenda Morrison (Simon Fraser University) – for introducing me to restorative justice and planting a seed for my thesis idea, before I even knew it.

- I am incredibly honoured and humbled to have had all of you on board for my Master thesis.

Also, I would like to acknowledge the input of the members of the SEED lab, and their invaluable opinions when creating the discipline measure for my study.

Finally, I owe special thanks to people, who convinced me to commit to my calling and to pursue the degree in this field. To my wonderful fellow students and professors who shared my vision and passion for the holistic education (you have a special place in my heart)... To my parents and to my partner who have been supportive and incredibly patient throughout my studies...

- Thank you!

Dedication

To my nephews, and all the young souls who are yet to go through the process of schooling.

1. Introduction

Schools are important places for young people to socially connect with peers and adults, yet many students experience schools as largely alienating institutions (Brown, Higgins, & Paulsen, 2003; Osterman, 2000; Schulz, 2011). Klem and Connell (2004) noted that by high school as many as 40-60% of students in US urban, suburban and rural areas are chronically disengaged from school. Many negative behaviours, including disengagement from educational process, violence, gang activity, substance abuse and suicidal ideation are likely indicative of student alienation (Edwards & Mullis, 2001; Schulz, 2011; Staples, 2000). Fostering school connectedness and supportive teacher-student relationships is crucial in counteracting such disengagement and in promoting resilience and academic success in children, especially for at-risk students who lack adult support in their homes and communities (for reviews, see Roorda, Koomen, Spilt, & Oort, 2011; Sabol & Pianta, 2012).

Connectedness to school and teachers tends to decline by adolescence, as the importance of belonging to cliques increases (Furrer & Skinner, 2003; Lynch & Cicchetti, 1997). Eccles and Roeser (2015) suggest that such phenomena can be explained by teachers' tendency to use stricter and more controlling discipline strategies, while providing fewer opportunities for student autonomy and decision-making in the classroom as children move from elementary to high school – both to maintain their authority and to cope with increasing demands of middle school. In reality, such tendencies conflict with the developmental needs of adolescents, who strive for independence from adult control and for opportunities to make choices in areas that impact their future lives (Zimmer-Gembeck & Collins, 2003).

In addition, the frequency of interpersonal aggression, such as *bullying*, usually peaks during the middle school years (e.g., see Hymel & Swearer, 2015 for a review). This

phenomenon is especially likely in schools with poor climate and low connectedness (Swearer & Hymel, 2015; Wilson, 2004). Ironically, teachers often fail to monitor or to maintain high expectations for student *interpersonal* behaviours. Research reveals fairly high tolerance and low boundaries for peer harassment and victimization in classrooms and schools. For example, Cunningham (2007) found that both students who bullied others and those who were victimized perceived that teachers had low expectations for their behaviour and did not attempt to stop bullying or to protect a victim. Other studies have shown that teachers rarely intervened in bullying incidents that unfolded before their eyes, or chose to ignore them (Bradshaw, Sawyer, & O'Brennan, 2007; Craig, Pepler, & Atlas, 2000). While such inadequate response from teachers can be attributed to their lack of awareness and/or their limited skills in dealing with such situations (Bauman & Del Rio, 2005), it can also reflect their own normative attitudes towards bullying (Hektner & Swenson, 2012; Troop-Gordon & Ladd, 2015), and essentially points to issues of discipline.

Teachers are the catalysts for nurturing positive interpersonal dynamics with and between students, as well as ensuring their classrooms are safe places for children to belong and to succeed. This study explored the role of teacher discipline practices in relation to the prevalence of interpersonal aggression, and student feelings about school. Specifically, this study examined links between student perceptions of school discipline practices and their reports of school connectedness and bullying/victimization.

2. Literature Review

2.1. School connectedness and its pervasive enemy – Bullying

In light of compelling empirical evidence, social belonging is a universal and a fundamental human need, and one of the most powerful motivators for our behaviour (see Baumeister & Leary, 1995, for a review). In educational settings, feelings of belonging and connectedness are especially significant, as they are associated with the development of basic psychological qualities important to student success, including intrinsic motivation in learning, positive self-concept, pro-social attitudes towards others, and higher participation in school practices (see Osterman, 2000, for a review).

The term *school connectedness* in the academic literature is used interchangeably with notions of school belonging, school attachment, school engagement and school bonding, and can be simply described as the extent to which a student feels like they are part of the school community and that adults and peers in their school care about their learning as well as about them as individuals (e.g., Waters, Cross, & Runions, 2009). Research consistently demonstrates, not only that school connectedness is a powerful predictor of students' psychological wellbeing (Bond et al., 2007; Langille, Rasic, Kisely, Flowerdew, & Cobbett, 2012; Lester, Waters, & Cross, 2013; Monahan, Oesterle, & Hawkins, 2010; Shochet & Smith, 2014) and academic achievement (Blum, 2005; Centers for Disease Control and Prevention, 2011; McNeely, 2013; Monahan et al., 2010; Smith, 2014), but also that it is inversely associated with a range of risky, health-compromising and violent behaviours in students (Bond et al., 2007; Frey, Ruchkin, Martin, & Schwab-Stone, 2009; Resnick, Harris, & Blum, 1993; Resnick, Ireland, & Borowsky, 2004). In addition, the degree to which individuals feel connected to school moderates the rates of peer aggression

and victimization (Cunningham, 2007) beyond the quality of school climate alone (Wilson, 2004), and increases the likelihood that students intervene in incidents of bullying (Ahmed, 2008). Student connectedness to school can ultimately promote better learning environment for all, as it is nurtured by supportive relationships with family and school adults, and reflects the conventions and positive values of the adult world (Karcher, Holcomb, & Zambrano, 2008).

In contrast, a lack of individual safety and a prevalence of interpersonal aggression in schools adversely impact student connectedness and school climate (e.g., Meyer-Adams & Conner, 2008). For instance, bullied adolescents are typically less connected to peers, teachers and school (e.g., Skues, Cunningham, & Pokharel, 2005) and their sense of helplessness and disconnection from school increases over time (Craig, Pepler, & Blais 2007) – especially if they perceive themselves to be a victim (You et al., 2008). As well, RasKauskas, Gregory, Harvey, Rifshana, and Evans (2010) found that bullies and bully-victims reported the lowest levels of connection to school and the poorest relationships with their teachers. Witnessing school violence also compromises students' individual sense of safety and school connectedness over time, and thus predicts conduct problems, truancy, and a range of externalizing and internalizing behaviours in students (e.g., Janosz et al., 2008; Mrug & Windle, 2009).

Reducing bullying and victimization, nonetheless, remains a major challenge for many schools. It has been argued that the ineffectiveness of short-term bullying interventions can be explained by their narrow focus on bullying alone and targeting individual students per se, rather than framing the issue in psychosocial terms and thus promoting positive bonds among students as well as quality teacher-student relationships (Galloway & Roland, 2004;

James et al., 2008).

2.2. An elusive element in bullying prevention: Teacher

A number of educators and academic scholars highlight the role of teachers as primary socializing agents for creating positive change and reducing bullying within their classrooms (e.g., Karcher, 2004; Noddings, 1992; Osterman, 2000; Twemlow, Fonagi, Sacco, & Brethour, 2006; Wentzel, 2003; Yoon & Bauman, 2014). It is argued that teachers not only have a *direct* impact on student behaviour and connectedness by establishing caring teacher-student relationships and promoting a pro-social ethos, but teachers also *indirectly* influence peer socialization experiences by determining the conditions under which students interact with one another (Osterman, 2000; Wentzel, 2003).

Still, anti-bullying interventions generally downplay the role of school adults in creating contexts that minimize negative peer interactions as well as their responsibility in teaching and modeling elements of positive interpersonal relationships for students (Craig et al., 2007). Another notion largely overlooked in bullying prevention efforts in North America is that teachers might themselves be at the root of bullying culture in their classrooms (Benbenishty & Astor, 2012). For example, teachers who witness but do not act to stop bullying indirectly perpetuate power struggles between the students (Twemlow et al., 2006), and thus aggravate the conflict. Likewise, Yoon and Bauman (2014) speculated that asking victimized students to be more assertive or punishing a bully in order to communicate that bullying is not accepted could potentially exacerbate the problem, as these strategies fail to facilitate socially competent behaviours and pro-social goals, and thus might have a negative effect on interpersonal group dynamics.

Teachers are also in a position of power over children, and sadly are not immune to

bullying students themselves. While anecdotal accounts of a teacher-bully are not uncommon (e.g., see Twemlow et al., 2006), the research in this area is limited. However, the findings of the available studies are striking. For example, in the surveys of students at 41 Irish secondary schools by James et al. (2008), over 30 percent of students reported being bullied by teachers. In another UK study by Terry (1998), about 70% of teachers witnessed other teachers bully students, and nearly half of the teachers who were bullied by students said that they responded by bullying a student back. In a US study Twemlow et al. (2006) found that, out of 116 elementary school teachers, as many as 88% agreed that teachers bully students, out of which 18% agreed that this was a frequent phenomenon, and almost 45% admitted to having bullied students themselves. Authors defined a teacher-bully as one “who uses his/her power to punish, manipulate or disparage a student beyond what would be a reasonable disciplinary procedure” (Twemlow et al., 2006, p. 191). Although disciplinary and other classroom management tactics are rarely questioned in the bullying prevention programs, these are indeed rather typical ways in which teachers misuse their power over students (Paul & Smith, 2000).

2.3. Classroom management and teacher discipline practices

Classroom discipline, indeed, is critical for creating safe and orderly contexts, optimal for learning and for positive student interactions. Available evidence suggests that when students perceive schools to be safe, discipline practices to be fair and consistent, and relationships with peers and with teachers to be supportive, they tend to feel more engaged and connected to school (e.g., Johnson, 2009; Kelm & Connell, 2004; Waters et al., 2009), and report fewer incidents of school violence, bullying and victimization (e.g., Cornell, Shukla, & Konold, 2015; Gregory et al., 2010; Konishi, Miyazaki, Hymel, & Waterhouse,

2017). However, there is a fine line between discipline tactics that heal and ones that hurt relationships, as well as between classroom management practices that cultivate and those that impede healthy social habits among children, in spite of teachers' intrinsically good intentions. According to The School Discipline Consensus Report (Morgan, Salomon, Plotkin, & Cohen, 2014), despite the fact that schools remain the safest places for young people to be during daytime, millions of middle and high school students face exclusionary disciplinary treatment, overwhelmingly for minor misconduct, and disproportionately across minorities. Such trends pose a colossal threat to youths' feelings of school connectedness, as restricting students' rights to attend school in response to their misconduct predisposes them for failure and robs them of opportunities to learn to socialize in a positive way. In response, an increasing number of educational professionals, psychologists, researchers, and experts in juvenile justice urge schools to transform their discipline practices towards more preventative and restorative tactics for the greater good of individuals and society (e.g., Morgan et al., 2014). The following review offers an analysis of a traditional approach to discipline and its alternatives.

2.4. Traditional approaches to discipline

Within the mainstream realm, school discipline is conventionally viewed as individual compliance to school rules, and essentially is based on principles of behaviourism (Bear, 2013). That is, managing student behaviour with consequences, or by means of positive reinforcement. However, as demonstrated in the review to follow, such approaches to discipline often thwart student connectedness to school and teacher, spoil trust and motivation, counteract social and emotional learning, and do not result in lasting change.

2.4.1. Use of punishments and consequences as a discipline approach

In recent decades, the typical response to misconduct and aggression in North American schools has been largely retributive; that is, inflicting stricter, harsher punishments, and more coercive means of attaining compliance (Edwards & Mullis, 2001). For instance, *zero tolerance* approaches are marked by predominately punitive and exclusionary discipline strategies for violations of school rules irrespective of individual circumstances (Skiba, 2014). Initially promoted in reaction to the outrageous school shootings and the events of 9/11, with the intent to reduce school violence and promote safe learning environments, this approach has become a common way of responding to student misconduct in US schools (Morrison & Vaandering, 2012; Sharkey & Fenning, 2012). Ironically, US national and state statistics have repeatedly revealed that only a small proportion of out-of-school suspensions are used in response to offences that threaten school security and safety of others (Advancement Project & The Civil Rights Project, H. U., 2000; Council of State Governments Justice Center, 2011; Heaviside, Rowand, Williams, & Farris, 1998; New York City School-Justice Partnership Task Force, 2013). Conversely, some anecdotal data suggests that students are often suspended for minor misconduct and noncompliance, including dress code violations, profanity, and instances like “a 5-year-old girl's temper tantrum, a child doodling on her desk with erasable ink, or adolescent students having a milk fight in the cafeteria” (Davis, 2014, p. 40).

Gossen (1998) argued that use of punishment is often an attempt to put students in an inferior position, and that its legacy is rebellion, whether overt (directed at teacher) or covert (e.g., putting graffiti on school wall, making a joke at teacher's expense, hurting a weaker person). Therefore, both the effects of punitive discipline on interpersonal relationships, and

its effectiveness in managing student behaviour are highly debatable in the long run.

It is now well established that zero tolerance policies have been counterproductive, contrary to what they were initially intended for, and have themselves become a risk factor for a range of negative outcomes. Schools' reliance on severe consequences, suspensions and expulsions has been linked to decreases in academic achievement, poorer school climate, negative attitudes towards adults and increases in student behavioural issues and dropouts (see American Psychological Association Zero Tolerance Task Force, 2008, for a review), as well as to low school connectedness in students (McNeely, Nonnemaker, & Blum, 2002).

Furthermore, the harshness of school discipline extends beyond the school context alone. Since the implementation of zero tolerance practices, there has been a considerable upsurge in school referrals to the juvenile justice system for student misconduct and disruptions, many of which were previously dealt with at the school level (e.g., alcohol, tobacco, drugs off campus, fights) (Skiba et al., 2003). Such criminalization of misbehaviour – known as *school-to-prison pipeline* phenomenon – is believed to be widening the racial graduation gap and essentially contributing to the disproportional incarceration of disadvantaged minorities (Skiba et al., 2003), thereby inflicting even grimmer societal impacts.

In response to growing evidence suggestive of the pathologizing and counterproductive effects of punitive and exclusionary discipline, school districts have begun to shift their behavioural management efforts towards more positive discipline practices for improving overall school environment (Olley, Kohn, & Cowan, 2010).

2.4.2. School-wide positive behavior interventions and supports (SWPBIS)

Positive behaviour interventions and supports favor positive reinforcement over punishment in attaining school order and student compliance. Components of SWPBIS

include teaching expectations for appropriate behaviour and reinforcing positive conduct at a school-wide level through behavioural contracts, rewards and token economies, and more individualized interventions for students who are consistently disruptive or engage in serious misconduct (e.g., Simonsen, Jeffrey-Pearsall, Sugai, & McCurdy, 2011).

Although limited, some promising evidence supports the effectiveness of school-wide PBIS in improving the rates of office discipline referrals and suspensions (e.g., Nocera, Whitbread, & Nocera, 2014), reducing displays of physical and verbal aggression (e.g., Nese, Horner, Rossetto Dickey, Stiller, & Tomlanovich, 2014) as well as rates of teacher-reported bullying and peer rejection amongst students (Waasdorp, Bradshaw, & Leaf, 2012), thereby indicating a positive shift in school discipline tactics. However, SWPBIS approaches have been considered to have few drawbacks. On one hand, bribing children with rewards as a behaviour-management strategy has been criticized for promoting little else than a short-term compliance (e.g., Kohn, 1993). Of major concern is evidence that the use of tangible rewards and incentives (i.e., material/ symbolic rewards, or verbal praise, aimed for controlling student behaviour and persuading them to engage in activities they might not otherwise engage) can substantially undermine student intrinsic motivation (Deci, Koestner, & Ryan, 2001), which in turn is linked to positive behavioural and academic engagement, and school success (see Fredricks, Blumenfeld, & Paris, 2004, for a review). On the other hand, Bear (2013) noted that research in developmental psychology and psychopathology reveals that aggressive and antisocial children tend to center their moral reasoning on gaining external rewards and avoiding punishment rather than on virtues of caring, fairness and justice, or feelings of empathy, guilt, or shame. Thus, the use of contingent rewards also

contradicts the fundamental aim of education: to socialize children into morally adept citizens of society.

2.5. Alternative views of discipline

2.5.1. Self-discipline through social and emotional development

Problem behaviours often signal students' emotional disturbances, learning disabilities, and/or mental health challenges, as well as their lack of skills in responding to difficult situations (see Dodge, Coie, & Lynam 2006; Marzano & Marzano, 2003, for reviews). It is suggested that, in contrast to coercive disciplinary methods aimed at evoking sense of compliance, schools that capitalize on education-based discipline and help students develop a positive self-concept along with social, emotional and coping skills will likely have more comprehensive and sustainable effects on student behaviour (Bear, 2015; Olley et al., 2010).

The term *discipline* originally comes from old English, meaning “to teach or train”. In the context of schools, that translates into teaching children social skills and moral principles to become socialized into their culture (Stutzman-Amstutz & Mullet, 2014). Thus, the long-term goal of school discipline entails teaching students to control their impulses and to take responsibility for their own behaviour, or in other words – *self-discipline*. Since the popularization of the concept ‘emotional intelligence’ by Goleman (1995), there has been a surge of school-based, social-emotional learning programs, stressing the importance of teaching social and emotional competencies to children as the essential components for successful transition to a fulfilling adult life, positive relationships with others, the ability to handle stressful life events constructively, and even for bolstering academic achievement (Schonert-Reichl & Hymel, 2007; Taylor, Oberle, Durlak, &

Weissberg, 2017). However, in spite of some evidence that such programs can improve children's aggressive-disruptive classroom behaviours (see Bradshaw, 2015, for a review), the support for their effectiveness in reducing bullying or increasing connectedness is scarce. In addition, as Reistenberg (2011) pointed out, when a student makes a mistake the set of skills promoted in these programs are often ignored, as "...for expedience, we do 'to' them – suspend, detain, expel – rather than working 'with' them", (p. 5).

Social-emotional learning programs are often criticized for promoting mainly fragmented short-term interventions, being by and large individualistic, viewing children through the neo-behaviourist lens and focusing on rules and activities, instead of fostering meaningful interactions and emotional connectedness through holistic approaches (e.g., Hoffman, 2009; Vadeboncoeur & Collie, 2013). Along these lines, scholars increasingly advocate for creation of a whole-school culture of care beyond preaching a mere list of rules and virtues. Specifically, this would include such things as attending to the ethical dilemmas and issues in students' real lives through genuine dialogues (Eccles & Roeser, 2015; Noddings, 2006), involving students in school matters through collaborative problem solving (Bear, 2015), as well as fostering school-bonding and meaningful social connections through perspective-taking (Karcher, 2004) and restorative discipline (Morrison, Blood, & Thorsborne, 2005).

2.5.2. Discipline for the common good: Belonging in focus

Morrison et al. (2005) stress that traditional discipline tactics are based on the assumption that individuals are guided solely by self-interest and argue that the need for social bonding is an equally or even more powerful motivator for our actions. Therefore, schools "should acknowledge and carry the responsibility of nurturing positive relationships"

(p. 337). Such a perspective echoes a number of motivational and developmental scholars, who highlight the importance of social connectedness among other motivators, and stress the destructive force of excessive external control to human behaviour (Brendtro, Brokenleg, & Van Bockern, 1990; Glasser, 1998; Ryan & Deci, 2000). For instance, in their Self Determination Theory of motivation, Ryan and Deci (2000) argue that students' curiosity and natural tendency for growth can be either enhanced or hindered by the extent to which schools support or forestall their fundamental psychological needs for relatedness, autonomy and competence. Through this lens, discouragement, disruptive behaviour, interpersonal aggression, and even mental distress in students are rooted in feelings of insignificance, powerlessness, learned irresponsibility and disconnection from each other, which, in turn, stem from non-optimal challenges, excessive control, and loss of opportunities to engage in socially responsible actions. Accordingly, Staples (2000) asserted that violence in schools is an act of despair, powerlessness and hopelessness in response to the failure of institutionalized schooling to create meaningful experience, which speaks to the issues of a "broken world".

Empirical and practical evidence suggests that in schools that establish a socially supportive environment and promote a sense of community, youth are more likely to commit to and behave in accordance with shared school values and goals (e.g., Solomon, Battistich, Watson, Schaps, & Lewis, 2000), and display lower rates of bullying and interpersonal aggression (Kasen, Berenson, Cohen, & Johnson, 2004). By contrast, socially estranged students, who typically cannot name anyone in school that they trust or to whom they can turn for support, tend to reject school and all that it stands for (e.g., see review by Brown et al., 2003). In a meta-analysis of over 100 studies, Marzano, Marzano and Pickering (2003)

found that high quality teacher-student relationships was the greatest factor in maintaining positive classroom discipline; which, in turn, appears to have the largest effect on student achievement (Wang, Haertel, & Walberg, 1993).

2.5.3. Overview of positive discipline approaches

The pioneers of positive school discipline approaches have generally disputed the effectiveness of rewards and consequences in establishing an optimal learning environment, and instead highlight strategies for fostering social connections, as well as developing students' self-discipline rooted in pro-social attitudes, shared values, and reciprocal responsibility for common good. For example, Ginott (1972) saw traditional (punitive) discipline as dehumanizing and ineffective in the long-term, and an educator as a decisive element in classroom climate. He called for a congruent (i.e., sincere) teacher-student communication of behavioural principles (free of attacks to student character and personality) that conferred student uniqueness, dignity and inherent humaneness. Gordon's (1989) approach to youth discipline emphasized influence over control, and collaboration over domination in teacher-student (and parent-child) relations. He promoted effective listening and conflict resolution skills for "shifting gears" from "communication roadblocks" (e.g., giving orders, preaching, criticizing, lecturing, etc.) that provoke defensiveness and rebelliousness, towards cooperative classroom dynamics. For Glasser (1968, 1993), behaviour is an output of individual endeavours to get what we want from the world (i.e., to belong, to feel self-worth, and to have fun and freedom of choice), and problems in student conduct are seen as the failure of schools to meet these needs. Glasser contended that teachers must not depend on any discipline practices that require them to do something *to* or *for* students to get them behave well in unsatisfying classrooms, and instead they must create

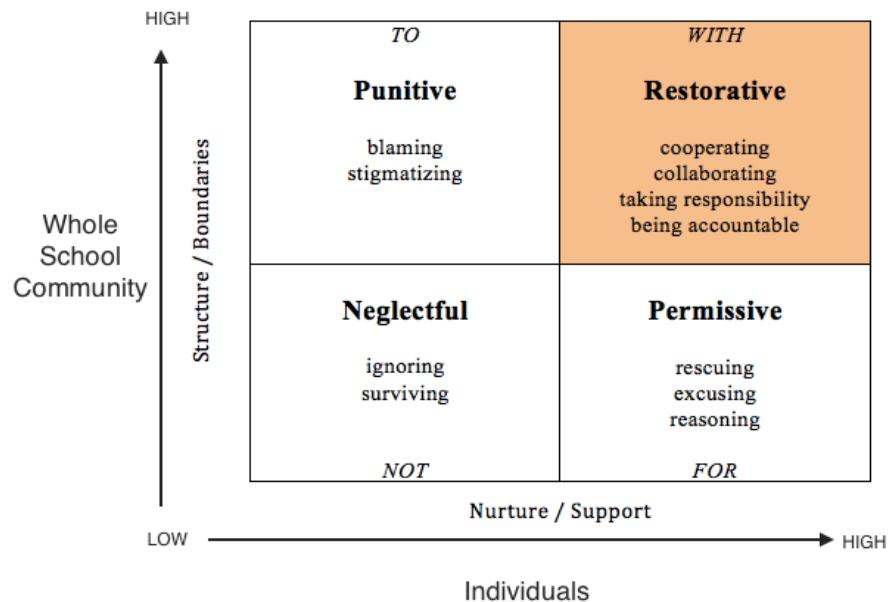
meaningful learning environments, and provide support and encouragement for students to *do* and *be* their best without coercion. More importantly, he stressed that social responsibility and skills must be *practiced* and not just *preached*, and rules must be negotiated and agreed upon, not imposed.

Later, Gossen (1992) elaborated upon Glasser's theory and concept of quality schools and proposed her *Restitution Model* for restructuring school discipline, which offers the set of practical recommendations for helping students learn self-discipline. Gossen views relationships as central to school discipline and promotes restitution as an opportunity for students to "fix" their mistakes and to return to the group strengthened. It is a values-based discipline approach free of anger, blaming, threatening or inflicting guilt, that encourages students to make dignified choices by upholding the standards of positive self-concept, rooted in sense of connectedness and ownership for one's own actions.

More recently, Blood (as cited in Morrison et al., 2005) has also built on Glasser's ideas and proposed a framework for developing social capital within schools by providing individual support to its members while upholding high structure and boundaries necessary to maintain order in the school community (see Figure 1 below). According to this framework, optimal school discipline is based on caring relationships. Thus, it requires collaboration and everyone's responsibility for maintaining safe and healthy community as well as shared accountability and cooperation at times when relationships go awry. Often referred to as authoritative, re-integrative or restorative, such discipline is done *WITH* students, in contrast to *TO* or *FOR* them or *NOT* at all. It is a fundamentally inclusive approach that seeks to restore harmed relationships and to re-integrate those who make bad behavioural choices and those affected by them back into the community. This is in stark

contrast to punitive or authoritarian discipline (which often stigmatizes or excludes the wrongdoer), permissive or paternalistic approaches (which are overly protective and easily forgiving), and neglectful or indifferent approaches (i.e., lacking discipline, support or boundaries).

Figure 1. Social capital as a basis of social discipline



Reprinted from: “Practicing restorative justice in school communities: The challenge of culture change,” by B. Morrison, P. Blood and M. Thorsborne, 2005, *Public Organization Review: A Global Journal*, 5, p. 348.

2.6. Restorative practices in schools

Restorative practices in particular have been increasingly advocated in recent years and in various western countries as a way to transform school discipline (e.g., Mayworm, Sharkey, Hunnicutt, & Schiedel, 2016; Stinchcomb, Bazemore, & Riestenberg, 2006). Such practices vary in formality, intensity and targeting, from transforming everyday classroom communication (e.g., reinforcing community values, using affective statements, asking

affective questions to promote emotional engagement) and small impromptu conferences to address minor behavioural problems, towards more focused, circle discussions with larger groups or whole classrooms, and more intense and formal conferences with targeted individuals and those affected (Wachtel, 2013). Thus, restorative discipline offers a community-based, inclusive and fair approach to dealing with school violence and misconduct.

From the perspective of Restorative Justice (RJ) philosophy, misbehavior is deemed detrimental to school community rather than as mere noncompliance with a code of conduct, and conflict is viewed as a sign of a damaged relationship. Hence, the process of restorative discipline involves repairing the damage and relationship through a collaborative approach, engaging both the individuals inflicting harm and those who are harmed and/or affected by their actions. This typically involves a dialogue-based, emotionally invigorating practice, invites different voices into candid conversation, and seeks to elicit an understanding of complexity of problem and misconduct as well as to elicit accountability and remorse in the wrongdoer. For example, as Jones (2013, p. 8) noted, while anger outbursts in students at the Dean's office often lead to suspension or referral to the juvenile justice system, some restorative practitioners "will allow students to scream, curse, and release anger in the safe context of the restorative justice office until they have worked through their aggression and calmed down". Restorative practitioners see such behaviour as natural for the adolescents, and even important for reaching the tipping point in the conflict resolution process.

2.6.1. Evidence for restorative practices in schools

As an approach that has only recently been gaining in popularity, empirical evidence of effectiveness of restorative practices in schools is limited. A recent review of research

evaluating the use of RJ as school discipline by Mayworm et al. (2016) demonstrated that such practices were generally well-received and effective in reducing misconduct and improving school safety and climate. For example, qualitative studies using various methods (e.g., observations, focus groups, questionnaires and interviews) and conducted in schools in the US (Hantzopoulos, 2013; Karp & Breslin, 2001; Stinchcomb et al., 2006), Canada (Reimer, 2011), Brazil (Grossi & dos Santos, 2012), New Zealand (Kaveney & Drewery, 2011), United Kingdom (Kane et al., 2009), Belgium (Bursens & Vettenburg, 2006) and Australia (Shaw, 2007) suggest that students, teachers, administrators, and principals had overall positive feelings about the use of restorative discipline, reporting fairness, positive teacher-student relationships and classroom order, as well as positive behaviour outcomes and reductions in suspensions as a result.

A body of qualitative and quantitative evidence from non-experimental and quasi-experimental studies of the US schools, where restorative justice practices were systematically implemented to deal with behavioural issues and conflicts, generally supports the effectiveness of such initiatives. For example, studies report considerable reductions of in- and out-of-school suspensions and expulsions (e.g., Armour, 2013; Baker, 2009), decreases in violent, disruptive behaviours and other serious infractions (e.g., Mirsky, 2007; Sumner, Silverman, & Frampton, 2010), as well as lower rates of recidivism at post-test and later follow-up assessments (e.g., McCold, 2008).

In a case study of a 3-year pilot project in a St. Paul school district in Minnesota that introduced restorative measures as a way to improve school discipline, in addition to favourable experiential accounts from teachers and staff, quantitative pre- and post-test data showed a drastic decline in the rates of behavioural infractions, physical aggression and

suspensions, in addition to the 85% average increase in daily attendance (Stinchcomb et al., 2006). In a more recent study evaluating the effectiveness of the Whole School Restorative Justice initiative in the Oakland school district in California, quantitative data from students and school staff showed that in schools that embraced restorative practices to deal with behavioural issues and interpersonal conflicts, there was a 76% resolution rate of peer conflict in restorative circles, ~ 40% decrease in suspensions (most significantly for African-American students), and a dramatic ~56% plunge in dropout rates compared to control schools, as well as 60% improvement in graduation rates and a remarkable ~128% increase in reading achievement amongst ninth graders (Jain, Bassey, Brown, & Kalra, 2014). In addition, the data from teacher and student interviews indicated an increase in empathy, accountability, and sense of school connectedness amongst students, as well as improved overall school climate.

Overall, to date the results of restorative justice initiatives in schools suggest positive school-wide effects on student behaviour and teacher attitudes towards discipline, particularly in schools with high fidelity and administrative support. In their recent literature review, Fronius, Persson, Guckenburg, Hurley and Petrosino (2016) concluded that restorative justice is generally portrayed as a promising approach in addressing school climate, culture and safety issues.

Intriguingly, evidence of the effects of restorative practices in schools on bullying behaviours and connectedness is almost nonexistent. In this review, only two studies were identified that looked at bullying as the outcome, and only one of them measured sense of belonging in students. On the one hand, the report of the Youth Justice Board of England and Wales (2004), evaluating a 3-year restorative justice program in 26 UK schools (both

primary and secondary) that was initiated primarily to reduce offending, bullying and victimization amongst students, yielded few positive results. Only a few schools that were fully committed to the program showed some reduction in bullying behaviours (e.g., by 7%, 8% and 14%), including verbal threats (e.g., by 13%), racist name-calling (e.g., by 15% & 19%) and spreading rumours (e.g., by 10% and 10%), as well as physical offences such as hitting, kicking or hurting someone (e.g., by 10%, 16%, and 17%), while in other (especially non-program) schools such infractions generally increased in frequency. However, the outcomes did not differ significantly from the reports of non-program schools, providing overall poor support for the impact of restorative justice on school bullying.

On the other hand, a quasi-experimental study by Wong, Cheng, Ngan, and Ma (2011), examined the effectiveness of a Restorative Whole-school Approach (RWsA) in reducing bullying in Hong Kong schools and provided more promising evidence. Specifically, it was found that schools that implemented this intervention program for two years (grades 7 to 9) showed significant reductions in bullying behaviours, while at the control non-RWsA school bullying increased over the same period. Despite similar rates of bullying prior to implementation of the RJ program, almost half of students (49.9%) who bullied others had reduced their bullying behaviours following intervention, while 51% of students in non-RWsA had increased their rates of bullying. In addition, there was significant improvement in self-esteem and empathy among students in schools with full intervention, while no such changes were seen in control schools. Notably, while the non-RWsA showed substantial and significant drop in sense of belonging, school harmony and positive perceptions towards teachers (typical to middle school, as mentioned above), schools that fully embraced restorative practices did not display significant changes on these outcomes.

Indeed, multiple ecological and systemic factors can explain such discrepancy of the outcomes of these initiatives. Most importantly, the buy-in factor from teachers and school staff varied substantially across the schools, let alone potential cultural and methodical disparities between schools in the UK and Hong Kong. Many of the UK schools, for instance, adopted mainly a reactive approach to bullying and thus practiced restorative conferencing only after incidents occurred and escalated. Those schools that embraced a more systemic approach and witnessed attitudinal change in teachers achieved better results than those with partial or inconsistent implementation. It is also noteworthy that many schools employed the outsiders, including volunteers and police officers, to mediate restorative conferences. Thus, the degree of teacher involvement in the restorative dialogues, and whether there was any change to the classroom management practices or teacher-student relationships, remain unclear.

To summarize, school discipline usually encompasses a set of behavioural expectations as well as an array of informal classroom and formal school-wide practices, both to proactively promote positive school climate and to respond to occurring conflicts or misbehaviour. Traditional styles are characterized by the rigid and imposed codes of conduct irrespective of students' perspectives, and "top-down" strategies of managing student behaviour by rewards or consequences, often exclusionary to those who do not comply. In contrast, positive and restorative approaches to discipline capitalize on cooperation, dialogue and fair practices that integrate the needs of both individuals and school community. Morrison et al. (2005) noted that the systemic change to a restorative culture in schools is a timely process, one that takes years of commitment and steady progress. The present study

aims to bring the focus back to the teachers' quotidian tactics of managing students' behaviour and the role of these tactics in student connectedness and interpersonal dynamics (bullying and victimization).

3. Current Study

3.1. Overview

In elementary schools in Canada, classrooms are led by one teacher for a year or more, which gives them a compelling amount of time and power to establish certain culture in their classrooms, and influence students' behaviour and interpersonal dynamics before they move on to middle school or high school. The present study is concerned with discipline practices employed by teachers routinely in their elementary schools and whether these practices foster or reduce school connectedness amongst their students and avert or exacerbate bullying.

It is anticipated that, irrespective of school policies, teachers' discipline tactics and classroom practices might vary considerably, with some being naturally more punitive or more restorative in their responses to student misconduct. Based on the review of literature above, 10 discipline strategies are considered in the present study. Traditional discipline approaches are reflected in the constructs of *consequences for misbehaviour*, *punitive shaming*, and use of *contingent rewards*. Restorative or positive discipline approaches are reflected in the constructs of *collaborative discipline*, *restitution*, *student voice*, and *emotional engagement*. In addition, perceptions of *fairness* and *boundaries* are also being considered, which could reflect both restorative and traditional discipline practices. Lastly, perceptions of *lack of discipline* are evaluated too, to tap low behavioural standards as well as low support. Specifically, the present study explored the links between students' reports of the discipline practices employed in their schools, reflecting each of the constructs listed above, and their reports of school connectedness, as well as experiences with victimization and bullying in their schools. Ultimately, the study sought to answer the following research

question:

- How do student perceptions of discipline practices relate to their reports of school connectedness, bullying and victimization?

3.2. Hypotheses

It was predicted that teacher discipline practices would be associated with variations in levels of connectedness and interpersonal aggression (bullying, victimization) in students. Students who perceived behavioural standards to be consistent but fair, and who reported that teachers used restorative practices more frequently and traditional discipline strategies less frequently, were expected to report higher levels of school connectedness, and less frequent bullying and victimization experiences, in comparison to students who perceived discipline to be predominately punitive and/or lacking in consistency, fairness or support. Specifically, it was hypothesized that greater reported use of *collaborative discipline, restitution, student voice/perspectives, emotional engagement, fairness, and boundaries* will be positively linked to student reports of school connectedness and negatively linked with the reported frequency of victimization and involvement in bullying behaviours. In contrast, greater use of *consequences for misbehaviour, punitive shaming, and use of contingent rewards*, as well as *lack of discipline*, were expected to be negatively linked to student reports of school connectedness, and positively linked with students' reports of bullying and victimization.

3.3. Method

Data for this research was collected in the spring of 2017 as part of a larger, ongoing School Climate and Bullying research project, and was used secondarily for the proposed thesis. This initiative, introduced and conducted in BC since 2009 by Dr. Shelley Hymel and

colleagues in Social Emotional Education and Development research lab at University of British Columbia, investigates the link between students' perceptions of school climate and their self-reports of bullying and victimization and provides schools with ongoing data regarding school-based efforts to improve school climate. Students across multiple elementary schools in a single school district in the Lower Mainland of British Columbia, Canada, were invited to complete questionnaires. For the purpose of the current research study, and with the approval from the UBC Behavioural Ethics Board, the school district, and principals in participating schools, the 2017 questionnaire included additional items to examine students' experiences of school and classroom discipline as well as their feelings of connectedness to school.

3.4. Participants

Students from grades 4-7, in 18 participating schools, and their teachers took part in this study. Participants who chose to respond to items on discipline and connectedness measures accounted for a total of 2303 students (50% females), ranging between 10 and 14 years of age. Those who responded to all items on discipline and connectedness measures accounted for 2194 students; discipline and bullying measures were completed by 2214 students; and both discipline and victimization measures were fully responded by 2219 students. Hence, the completion rate was about 95-96%. The student sample represented the ethnically diverse population of the greater Vancouver area of BC, and consisted of preadolescents of Asian (35%), Caucasian (18%), South Asian (11%), Middle Eastern (4%), Latin American (3%), Aboriginal (2%), African/Caribbean (2%) origins, as well as students of mixed ethnic background (19%), of other descent (1%), and those who were uncertain (5%).

3.5. Procedure

Participants completed paper-and-pencil questionnaires that were administered by a team of trained research assistants in the participating schools and classrooms, at a time arranged with school principals and teachers. The surveys were completed in a single group testing session, about 60 minutes in length, conducted in each classroom.

Given that the current research was a part of the ongoing School Climate and Bullying collaborative project, data were collected with the passive consent of parents and guardians. Use of passive consent was approved by both the administration of the school district and the UBC Behavioural Ethics Committee, given the collaborative nature of the research and efforts to provide useful feedback to each participating school. Thus, parents and/or guardians were informed of the research purpose and procedure and given an option to request that their child not participate. Student participation also required informed assent; students were informed of the goals and requirements of the study, assured of the confidentiality of their responses to the questionnaire, and invited to participate voluntarily with an option to withdraw at any time without any consequences. Informed assent was obtained from all students who completed the questionnaires.

In order to protect students' confidentiality, each participating student was provided with a student number on his/her assent form in order to tag their survey without attaching their names. This allowed for tracing respondents' identities, if circumstances so required, without compromising the confidentiality of their responses. Subsequently, all data were coded in terms of these subject numbers, not names.

The 2017 project survey included questions about student (a) demographics, (b) frequency of bullying/ victimization and (c) aspects of school climate (school bonding,

teacher support, consistency and clarity of rules, peer interactions, disciplinary harshness, support for cultural pluralism, and safety problems) as a part of the main study, as well as additional measures of (d) discipline and (e) school connectedness, the latter being examined for the purpose of the current research. For some schools, principals could also request completion of additional measures of students' self-regulation and anxiety, but these data were not considered in the present study. The measures and items relevant to the current analysis are described in greater detail below.

3.6. Measures

3.6.1. Discipline measure

In order to examine students' perceptions of discipline, a new measure was created by adapting selected items from existing sources (e.g., Bear, Gaskins, Blank, & Chen, 2011; Berkowitz, 2012) and creating new items, to tap all ten theoretically derived aspects of discipline. This measure was designed to assess how often students perceived particular disciplinary approaches were used in their school and classrooms. Specifically, the scale included a total of 40 items, with 3-5 items exemplifying use of the following strategies: *consequences for misbehaviour* (e.g., "Students who break the rules repeatedly get suspended or expelled from school."), *punitive shaming* (e.g., "If a student misbehaves, they are singled-out in front of the class, for example, standing in corner, desk separated from others."), *contingent rewards* (e.g., "Students who behave well get rewards or tokens."), *restitution* (e.g., "When students do something wrong, they have a chance to make it right."), *collaborative discipline* (e.g., "Teachers help students figure out why conflicts happen between students."), *student voice* (e.g., "Students get a chance to tell how they feel when bad things happen."), *emotional engagement* (e.g., "At school we learn to think about how

others might feel when they are hurt by words or actions.”), *fairness* (e.g., “Teachers treat all students fairly.”) and *boundaries* (e.g., “Disrespect and violence are NOT acceptable in this school.”), as well as *lack of discipline* (e.g., “Teachers just ignore it when students are mean to each other.”). The response format consisted of a 4-point, Likert scale, ranging from *never* (1) to *always* (4) (Appendix A provides a full list of items included in the discipline measure; Appendix B provides a copy of the measure as presented to students).

3.6.2. School connectedness measure

Student connectedness to school was assessed using 13 out of 42 items adapted from the Measurement of School Connectedness questionnaire, created by Sugar (2012), tapping the perceptions of being accepted and liked by other students and teachers, as well as sense of pride of belonging to the school community. Two items (“Adults in this school make me feel like I matter.” and “There is at least one adult in school who cares about me.”) were added to tap the feelings of being supported by school adults. The final measure (Appendix C provides a copy of the measure as presented to students) included both positive and reverse-scored questions (e.g., “I enjoy being at this school.” and “Sometimes I feel I don’t belong here.”) that were rated using a 4-point, Likert scale response format, from *really disagree* (1) to *really agree* (4). Student responses to all 15 items were averaged (following reverse scoring) to compute an overall composite score of school connectedness (*Chronbach's* $\alpha = .83$), with higher scores reflecting greater sense of connection to the school.

3.6.3. Bullying and victimization measures

Student reports of peer victimization and involvement in bullying were each assessed using four items, tapping the frequency with which they experienced being verbally,

physically, relationally and cyber bullied by peers at school and the frequency with which they took part in bullying others physically, verbally, relationally or electronically.

Following recommendations by Vaillancourt et al. (2008), students were first given a description of bullying, emphasizing three major characteristics (intentionality, repetition and power imbalance), based on definitions first described by Olweus (1993) (see Appendix D). In addition, students were provided with a description of each of the four types of bullying (physical, verbal, social and cyber). For each type, participants were asked to self-report on the frequency with which they had been victimized by others, as well as the frequency with which they took part in bullying others during the 2016/2017 school year, with responses given on a 4-point scale from *never* (1), *once every few times* (2), *every month* (3), *every week* (4) and *several times per week* (5) (e.g., “How often have you been physically (verbally, socially, cyber) bullied?” and “How often have you taken part in physically (verbally, socially, cyber) bullying others?”). Composite indices of both bullying (*Chronbach's* $\alpha = .71$) and victimization (*Chronbach's* $\alpha = .69$) were computed as the average of responses across the four items, with higher scores reflecting more frequent bullying or victimization.

4. Results

The study explored the links between students' perceptions of the discipline strategies used by teachers in their school, and their feelings of school connectedness, as well as frequency of bullying/victimization. For the purpose of this investigation, preliminary analyses included conducting a factor analysis on student reports of disciplinary practices, analyses of variance to assess variations as a function of demographic variables, bivariate correlations to explore relationships among variables and checking assumptions for multiple regressions. Each is described below.

4.1. Factor analysis

A factor analysis with principal component extraction and Oblimin rotation was performed through SPSS on student responses to 40 discipline items with the aim of reducing the number of initially proposed conceptual constructs (i.e., *consequences for misbehaviour, punitive shaming, contingent rewards, lack of discipline, collaborative discipline, restitution, student voice, emotional engagement, fairness, boundaries*), and validating the components for the final analysis. The items had good factorability, considering excellent statistic for KMO measure of sampling adequacy (= .948) and required criterion on Bartlett's Test of Sphericity ($p < .001$).

Initially, Varimax and Oblimin rotations were both considered and resulted in nearly identical patterns, indicating the coherent structure amongst the items. Ultimately, Direct Oblimin rotation with oblique solution was chosen for the interpretation of the produced factors, considering the presumed degree of correlation amongst discipline practices and the most plausible face validity of the resulting component structure (see Table 1 for the outcomes of Pattern Matrix).

The scree plot and the initial Eigenvalues (with Kaiser's criterion of >1) suggested six principal components that explained the total of ~49% variance (24.7%, 9.96%, 4.24%, 3.6%, 3.34% and 3.03% respectively). Community values tended to be generally moderate, indicating that a fair amount of variance can be explained by the principal components (Cerny & Kaiser, 1977).

The analysis yielded a six-component solution with a simple structure and factor loadings greater than .35 (Tabachnick & Fidell, 2007, recommend a minimum factor loading of .32). The first component, labeled as *Restorative Practices* included 17 items describing emotional engagement, collaborative discipline, restitution, and student voice with loadings between .765 and .350 across items. Six items, describing consequences for misbehaviour and punitive shaming loaded together (loadings between .688 and .412), forming the second component, named *Punitive Discipline*. The third component, with loadings between .766 and .420, was generated from four items describing poor response to unacceptable or mean behaviour, and hence was named as the initial construct: *Lack of Discipline*. Three items describing high behavioural expectations and boundaries plus the item, "Same rules apply to all students in the class," formed a fourth factor, named *Boundaries*, with loadings between .605 and .523. Four items describing the use of contingent rewards and privileges for managing student behaviour loaded on a fifth component, labeled *Reinforcement*. The sixth and final component, containing four items with loadings between .533 and .430, described fair treatment, and was labeled *Fairness*.

Table 1. Principle Component Factor Analysis with Direct Oblimin Rotation. Pattern Matrix (Only loadings > .3 included)

Discipline Items	Component					
	1	2	3	4	5	6
Students learn how their actions affect everyone in the school when rules are broken.	.765					
At school we learn to think about how others might feel when they are hurt by words or actions.	.745					
When students cause trouble, adults at school teach them how to do things better.	.735					
Students here are taught how to solve conflicts with others peacefully.	.697					
When bad things happen, teachers ask students to share their ideas about what happened and how to make things better.	.690					
Teachers help students figure out why conflicts happen between students.	.659					
If there is a problem or conflict in school, we learn how to avoid it in the future.	.653					
When a student breaks rules, they have to find a way to fix it.	.646					
When conflicts happen students are taught that they should care about how others feel.	.645					
When two students have a conflict, the teachers help them talk it out.	.604					
Students get a chance to tell how they feel when bad things happen.	.578					.318
Students are taught to be responsible for their actions.	.572					
At school we are taught how what we do affects others.	.550					-.321
When students are caught doing something wrong, they get a chance to explain it.	.461					.332
If a student hurts another student in this school, they have to do something to make up for the trouble they cause.	.458					
When students do something wrong, they have a chance to make it right.	.445					.330
Students know how they are supposed to act at school.	.350					
Students are sent to the office for talking back to the teacher.		.688				
If a student misbehaves, they get sent out of the class.		.656				
If a student breaks the rules, they get detentions.		.619				

Discipline Items	Component					
	1	2	3	4	5	6
Students who break the rules many times or who really misbehave get suspended or expelled from school.		.597				
If a student misbehaves, they are singled-out in front of the class.		.425				
Adults at this school yell at students who misbehave.		.412				
Students in this school get away with bad behaviour.			.766			
Students get away with threatening and bullying others in this school.			.722			
Students get away with talking back to a teacher.			.686			
Teachers just ignore it when students are mean to each other.			.420			
Students are expected to be respectful to other students and adults in this school.				.605		
Disrespect and violence are NOT acceptable in this school.				.585		
Teachers do not allow bad behaviour in the classroom.				.536		
The same rules apply to all students in the class.				.523		
Students who behave well get rewards or tokens.					.823	
Students who behave well get extra privileges.					.812	
Teachers openly praise students who behave well to set an example for other students.					.553	
If students misbehave, they lose privileges.					.468	
Students who misbehave get extra work to do.					.432	
Teachers treat all students fairly.				.326		.533
Teachers make all students feel included and respected.				.310		.482
Rules in this school are fair to everyone.				.391		.432
R*_ Some students are treated better or worse than others.			-.337			.430

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization. Rotation converged in 24 iterations.

R*- reversed item

Based on results of the factor analysis, composite scores were then computed for each of six discipline categories. Specifically, composite scores were computed as the average of responses to relevant items in each disciplinary component identified in the factor analysis. Similarly, composite scores were also computed as the average of responses to items assessing connectedness, bullying and victimization, as described above. The resulting discipline variables served as predictors, while composite scores on connectedness, bullying and victimization scales served as outcomes in subsequent analyses. Means and standard deviations as well as indices of internal consistency (Chronbach's Alpha) were computed for all nine composite indices, as shown in Table 2.

Table 2. Reliability and Descriptive Statistics for All Composite Variables

	<i>Number of Items</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Chronbach's α</i>
Restorative Practices	17	2272	2.94	.55	.91
Punitive Practices	6	2262	2.10	.55	.68
Lack of Discipline	4	2263	1.69	.55	.65
Boundaries	4	2265	3.43	.56	.56
Reinforcement	5	2264	2.10	.57	.66
Fairness	4	2247	3.15	.74	.82
Connectedness	15	2229	3.13	.45	.83
Bullying	4	2425	1.20	.36	.71
Victimization	4	2433	1.67	.66	.69

As seen in the Table 2, the majority of these measures demonstrated adequate internal reliability, the strongest being observed for the composite indices of Restorative Practices, perceived Fairness, and School Connectedness (>.80). The internal reliability for measures of Bullying, Victimization and Punitive Practices were also reasonably high (.68 to .71), and adequate for composite measures of Reinforcement, and perceived Lack of Discipline. The internal consistency observed for the composite index of perceived Boundaries was minimal

and findings regarding this measure must therefore be considered with caution. Given the internal consistency estimates observed, all nine variables were included in subsequent analyses.

4.2. Descriptive statistics

According to the descriptive data (presented in Table 2 above), discipline practices were rated overall as high in terms of behavioural boundaries and often fair, and use of restorative practices was more common than the use of punitive discipline or reinforcement. Collectively, students reported positive levels of school connectedness ($M = 3.13$, $SD = 0.57$), and had overall low rates of involvement in bullying ($M = 1.20$, $SD = 0.36$), and the experience of victimization ($M = 1.67$, $SD = 0.66$). However, the individual means ranged from 1.2 to 4.0 for connectedness on a four-point-scale, from 1 to 3.67 for bullying and from 1 to 5 on victimization, indicating the presence of some potentially alienated students and problems with bullying and victimization in most schools.

4.3. Correlational analyses

Pearson Product Moment Correlations (one-tailed) were computed to explore the relationships among the discipline components in order to inform possibilities for data reduction, and among the three outcome variables (connectedness, bullying victimization), as well as between outcome measures and discipline constructs. Results are presented in Table 3 below.

Table 3. Bivariate Pearson Product Moment Correlations Between Variables (one-tailed)

	2	3	4	5	6	7	8	9
1. Restorative	-.02	-.35***	.50***	.20***	.59***	.55***	-.14***	-.17***
2. Punitive	1	.23***	.04*	.42***	-.32***	-.18***	.17***	.20***
3. Lack of Discipline	-	1	-.28***	.07***	-.50***	-.45***	.24***	.35***
4. Boundaries	-	-	1	.14***	.41***	.36***	-.13***	-.14***
5. Reinforcement	-	-	-	1	-.08***	.06***	.11***	.09***
6. Fairness	-	-	-	-	1	.59***	-.26***	-.30***
7. Connectedness	-	-	-	-	-	1	-.17***	-.32***
8. Bullying	-	-	-	-	-	-	1	.39***
9. Victimization	-	-	-	-	-	-	-	1

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, one-tailed

First, with regard to inter-relations among discipline measures, no relationship was observed between reported restorative and punitive discipline practices. However, the rest of the discipline measures were significantly inter-correlated weakly or moderately, confirming that the discipline constructs share some of their variance in measurement of discipline.

Particularly noteworthy for further interpretation are the observed moderate positive relationships among restorative discipline, boundaries and fairness – each negatively associated with student perceptions of lack of discipline. In turn, punitive strategies were positively linked to reinforcement and lack of discipline, and negatively with fairness.

Second, there were significant but weak correlations among dependent variables. It is noteworthy that victimization was positively linked to bullying and negatively to connectedness (more so than bullying). Lastly, connectedness was positively linked to restorative practices and fairness with moderate correlations, and negatively linked to perceived lack of discipline and use of punitive strategies. In turn, bullying / victimization correlated positively with lack of discipline and punitive strategies, and correlated negatively with fairness, restorative practices, boundaries and positive reinforcement.

4.4. Preliminary analyses

Analyses of variance (ANOVAs) were conducted to assess sex, grade and school differences in both predictive and dependable variables. As shown in Table 4 below, one-way ANOVAs for reported connectedness, bullying and victimization, yielded significant differences between sexes, grades and schools with one exception: victimization across grade levels (see Table 4 for ANOVA statistics). Given these differences, these factors were controlled for in the regression analyses.

Table 4. One-way between groups ANOVAs of Connectedness, Bullying and Victimization by Sex, Grade and School.

	Sex			Grade			School		
	<i>df</i>	<i>MS</i>	<i>F</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>df</i>	<i>MS</i>	<i>F</i>
Restorative	1, 2251	2.91	9.55**	3, 2266	3.97	13.13***	17, 2254	1.43	4.80***
Punitive	1, 2240	6.49	22.13***	3, 2257	3.62	12.34***	17, 2244	3.09	11.17***
Lack of Discipl.	1, 2242	11.2	38.13***	3, 2258	3.0	10.26***	17, 2245	1.25	4.31***
Boundaries	1, 2244	3.71	11.89***	3, 2259	0.78	2.47	17, 2247	0.89	2.87***
Reinforcement	1, 2243	1.46	4.55*	3, 2258	0.98	3.07*	17, 2246	1.78	5.75***
Fairness	1, 2226	10.0	18.33***	3, 2241	14.76	27.66***	17, 2229	2.96	5.55***
Connectedness	1, 2208	2.94	14.56***	3, 2223	1.53	7.57***	17, 2211	1.11	5.68***
Bullying	1, 2293	3.22	29.87***	3, 2310	0.82	7.16***	17, 2297	0.39	3.49***
Victimization	1, 2301	8.79	21.55***	3, 2321	0.29	0.95	17, 2305	1.49	3.69***

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Specifically, girls reported significantly greater connectedness to school ($M = 3.16$, $SD = 0.43$), more frequent bullying ($M = 1.16$, $SD = 0.28$) and less victimization ($M = 1.59$, $SD = 0.60$), than boys ($M = 3.09$, $SD = 0.46$; $M = 1.23$, $SD = 0.37$ and $M = 1.71$, $SD = 0.68$ accordingly). Perceptions of discipline also differed significantly between boys and girls. Girls viewed discipline significantly more fair ($M = 3.21$, $SD = 0.70$), strict ($M = 2.47$, $SD = 0.54$) and consistent ($M = 1.61$, $SD = 0.53$ for Lack of Discipline) compared to boys ($M = 3.08$, $SD = 0.77$; $M = 3.39$, $SD = 0.58$; $M = 1.76$, $SD = 0.55$ accordingly), as well as they

reported more frequent use of restorative practices ($M = 2.98$, $SD = 0.54$) and less frequent use of punitive discipline ($M = 2.04$, $SD = 0.53$) and reinforcement ($M = 2.07$, $SD = 0.55$), than did boys ($M = 2.91$, $SD = 0.56$; $M = 2.15$, $SD = 0.55$; $M = 2.12$, $SD = 0.58$ accordingly).

With regard to grade differences, results of Tukey HSD post hoc comparisons indicated that Grade 7 students reported significantly lower connectedness to school ($M = 3.05$, $SD = 0.47$), and significantly higher frequency of bullying ($M = 1.26$, $SD = 0.40$), than students from grades 4 ($M = 3.16$, $SD = 0.42$, & $M = 1.17$, $SD = 0.31$), 5 ($M = 3.15$, $SD = 0.45$, & $M = 1.18$, $SD = 0.31$), or 6 ($M = 3.13$, $SD = 0.47$, & $M = 1.18$, $SD = 0.32$). Students from lower grades tended to view discipline as more restorative, consistent and fair, as well as less punitive, in comparison to student from higher grades, according to Tukey HSD test. Pairwise comparisons (Tukey HSD) among 18 schools resulted in only two significant differences in connectedness, and none in bullying or victimization, and therefore are not discussed further.

4.5. Assumptions of multiple regression analyses

A final set of preliminary analyses concerned with evaluation of the assumptions regarding data for multiple regression analyses. Specifically, the data were assessed for independence of errors, linearity, heteroscedasticity, influential outliers and distribution of residuals to verify that the assumptions of multiple regression models were adequately met. The assumption of independent errors was met on all three dependent measures (Durbin-Watson value for connectedness = 1.84, for bullying = 1.81 and for victimization = 1.87). The degree of multicollinearity was examined by considering the bivariate correlations, as well as the regression diagnostics such as tolerance statistic and Variance Inflation Factor

(VIF) that assess the impact of collinearity among variables in the models. No critical Pearson correlations between factors (i.e., $>.7$) and no low tolerance values ($<.1$) were observed in the data, and VIF values were far below 10. Taken together these statistics indicate that there was no undesirable multicollinearity between predictive variables (e.g., Tabachnick & Fidell, 2007), and hence the assumption was met.

The histograms, P-P Plots and scatterplots of standardized residuals were considered to check the assumptions of homogeneity of variance, linearity and normally distributed errors (the latter is optional, given large sample size – see e.g., Williams, Grajales, & Kurkiewicz, 2013). The assumptions of linearity and normality were met for the connectedness regression analysis (histogram reflects normal distribution of residual values, straight line on the P-P plot, and adequate scatterplot). For the bullying and victimization regression analyses, modest violations of normality and heteroscedasticity were observed. However, due to the nature of these measures (i.e., estimating the frequency of the atypical phenomena, and predicted floor effect with majority of students never or only rarely participating in bullying or experiencing victimization), these were expected and unavoidable. Moreover, these violations were expected to have little influence on regression results given the large sample size (Williams, Grajales, & Kurkiewicz, 2013) and were deemed non-detrimental to the study aim. These violations could also be reflective of presence of multiple outliers in the data (Std. Residuals: Minimum < 3 , Maximum > 3 on all measures). However, maximum Cook's indexes were all below < 1 , suggesting the absence of influential cases; hence, none were removed from the analyses and no further transformations to the data were performed, since the assumptions were adequately met for final analyses.

4.6. Primary Analyses

Hierarchical Linear Regression analyses were performed to explore the links between various discipline practices and each of three outcome variables (connectedness, bullying, victimization). For these analyses, demographic data on subject characteristics were entered in the first step (student grade level, sex, school) and the six discipline variables identified in factor analysis were entered simultaneously in the second step of the analysis. Results of these analyses indicated that overall discipline significantly predicted school connectedness, bullying and victimization, even after controlling for variations as a function of sex, grade and/or school variables.

The first regression analysis conducted was to test the hypothesis that students' perceptions of discipline practices predicts their sense of connectedness to school. As shown in Table 5, at the first step, sex, grade, and school combined predicted only about 2% of the variance ($\Delta R^2 = .02$, $F(3, 2190) = 11.2$, $p < .001$). At the second step of the analysis, discipline practices explained 43% of the variance in school connectedness ($\Delta R^2 = .43$, $F(6, 2184) = 278.4$, $p < .001$), over and above the amount already explained by the sex, grade and school differences in the first step. All six discipline factors were significant predictors of connectedness (see Table 5), with Fairness ($\beta = .313$, $t = 13.36$, $p < .001$) and Restorative Practices ($\beta = .271$, $t = 12.3$, $p < .001$) being the strongest *positive* predictors and Lack of Discipline ($\beta = -.177$, $t = -9.35$, $p < .001$) and Punitive Practices ($\beta = -.075$, $t = -3.94$, $p < .001$) being the strongest *negative* predictors of school connectedness in students. Also, both Boundaries and Reinforcement were positive significant predictors of connectedness (see Table 5). Students who reported greater connectedness to school were more likely to report use of restorative practices and to perceive discipline as fair, and were less likely to report

use of punitive practices or lack of discipline. Greater connectedness was also associated with greater use of reinforcement strategies in discipline and with more clear boundaries regarding behaviour.

Table 5. Hierarchical Multiple Regression Analyses Predicting Connectedness from Six Discipline Strategies (accounting for sex, grade, school)

	<i>Adj. R²</i>	<i>ΔR²</i>	<i>β</i>	<i>t</i>
Step 1	.014***	.015***		
Sex			.078***	3.67
Grade			-.077***	-3.63
School			.055	2.58
Step 2	.440***	.427***		
Sex			.007	0.44
Grade			.050**	3.05
School			.027	1.70
Restorative			.271***	12.31
Punitive			-.075***	-3.94
Lack of Discipline			-.177***	-9.35
Boundaries			.038*	2.02
Reinforcement			.070***	3.79
Fairness			.313***	13.36

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, one-tailed

Coding for Sex: 1=girl, 2=boy

The second regression analysis was conducted to predict rates of self-reported bullying from students' reports of discipline. Results of this analysis are presented in Table 6 below. At the first step of the model, sex, grade and school variables significantly predicted bullying, together accounting for 3% of the variance ($\Delta R^2 = .03$, $F(3, 2210) = 20.22$, $p < .001$), wherein most of this shared variance was explained by sex differences ($\beta = -.117$, $t = -5.58$, $p < .001$). The addition of discipline practices into the model at Step 2 explained an additional 8% of the variance in rates of bullying ($\Delta R^2 = .08$, $F(6, 2204) = 34.30$, $p < .001$). Contrary to what was expected, Restorative Practices and Boundaries were not significant in predicting bullying. Among the rest of the significant predictors, Lack of Discipline was the

strongest positive predictor ($\beta = .153, t = 6.45, p < .001$), followed by Punitive Discipline and Reinforcement (see Table 6 for details), while Fairness was the strongest negative predictor ($\beta = -.139, t = -4.72, p < .001$). Thus, greater bullying was reported in schools in which students perceived there to be a lack of discipline and fairness, and frequent use of punitive and reinforcement practices.

Table 6. Hierarchical Multiple Regression Analyses Predicting Bullying from Six Discipline Strategies (accounting for sex, grade, school)

	<i>Adj. R²</i>	<i>ΔR²</i>	<i>β</i>	<i>t</i>
Step 1	.025***	.027***		
Sex			-.117***	-5.58
Grade			-.080***	3.82
School			.069	3.28
Step 2	.106***	.083***		
Sex			-.077***	-3.78
Grade			.035	1.71
School			.071***	3.51
Restorative			.021	0.76
Punitive			.061*	2.55
Lack of Discipline			.153***	6.45
Boundaries			-.037	-1.57
Reinforcement			.048*	2.07
Fairness			-.139***	-4.72

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, one-tailed
Coding for Sex: 1=girl, 2=boy

The third regression analysis examined how students' perceptions of discipline predicted their experiences of victimization in school. At the first step of this analysis, only sex was a significant predictor ($\beta = -.097, t = -4.60, p < .001$), which accounted for only about 1% of variance, and also remained significant at second step (see Table 7 for details). Discipline variables entered into the system at Step 2 explained additional 15% of variance in victimization ($\Delta R^2 = .151, F(6, 2209) = 66.12, p < .001$). Lack of Discipline was the strongest amongst positive predictors of victimization ($\beta = .263, t = 11.45, p < .001$),

followed by Punitive Discipline ($\beta = .103, t = 4.44, p < .001$) as expected. Fairness was the strongest ($\beta = -.131, t = -4.62, p < .001$), and the only significant negative predictor amongst other discipline variables. Contrary to hypotheses, neither Restorative practices nor Boundaries were significant in predicting victimization in this analysis. Reinforcement, likewise, was non significant. Thus, students who reported frequent victimization were likely to view discipline as punitive, lacking in consistency, and unfair. It is interesting that when the effects of discipline variables were teased apart in the second step of the analysis, grade became a significant negative predictor of victimization as well ($\beta = -.070, t = -3.49, p < .001$).

Table 7. Hierarchical Multiple Regression Analyses Predicting Victimization from Six Discipline Strategies (accounting for sex, grade, school)

	<i>Adj. R²</i>	ΔR^2	β	<i>t</i>
Step 1	.009***	.010***		
Sex			-.097***	-4.6
Grade			-.006	-0.31
School			.025	1.17
Step 2	.161***	.151***		
Sex			-.042*	-2.12
Grade			-.070***	-3.49
School			.029	1.50
Restorative			.003	0.10
Punitive			.103***	4.44
Lack of Discipline			.263***	11.45
Boundaries			-.017	-0.73
Reinforcement			.007	0.33
Fairness			-.131***	-4.62

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, one-tailed
Coding for Sex: 1=girl, 2=boy

5. Discussion

The goal of this study was to explore the links between discipline practices and student perceptions of connectedness, bullying and victimization. Descriptive and correlational data revealed some intriguing findings. First, moderate correlations observed between restorative practices, boundaries, fairness and connectedness, and their negative associations with lack of discipline, victimization and bullying, suggest that these discipline components may be a part of one positive discipline approach. Furthermore, significant links between lack of discipline, use of punitive discipline and/or reinforcement approaches, as well as their negative associations with fairness, suggest that traditional discipline practices are likely to be perceived as unfair and/ or ineffective. Unsurprisingly, these discipline components were also associated with reported frequency of bullying and victimization as well as with lack of school connectedness. On a positive note, the overall teacher discipline practices across schools were perceived generally to be fair and marked by high behavioural boundaries as well as by more frequent use of restorative practices than use of reinforcement or punitive strategies.

Second, the data indicated an overall good level of school connectedness, and infrequent rates of peer victimization among students. However, there were a number of students in the study who scored at the low end of the connectedness measure, as well as those who admitted to bullying others on a frequent basis and those who felt perpetually victimized. These statistics are very concerning, as these students might be on track to alienation. Furthermore, both bullying and (especially) victimization were negatively associated with school connectedness, supporting the existing evidence that bullies, victims of bullying and especially bully-victims tend to feel disconnected from school (e.g., Craig et

al., 2007; RasKauskas et al., 2010; Skues et al., 2005), and suggesting that at least a proportion of disconnected students are among those who feel victimized and/ or bully others (or both). Last but not least, bullying and victimization were most positively linked to lack of discipline and use of punitive discipline strategies, and most negatively linked with perceived fairness, use of restorative discipline, and high boundaries. Taken together, these preliminary findings signal the need for positive discipline aimed at restoring connectedness in students involved in or affected by peer victimization. Particularly, these correlations suggest the importance of setting high boundaries and monitoring for interpersonal behaviours, as well as fair and supportive methods of dealing with such behaviours.

The main goal of the study was to explore whether and how the discipline practices employed by teachers routinely predict students' feelings of school connectedness, and rates of self-reported bullying and victimization. The results of all three hierarchical linear regression models produced significant results, confirming that discipline practices overall do indeed predict school connectedness in students, as well as (to a lesser degree) bullying and victimization, even after the effects of sex, grade and school are controlled for. More specifically, it was hypothesized that greater use of restorative practices, fairness and behavioural boundaries would predict (1) higher level of students' connectedness to school and (2) lower rates of bullying and victimization. It was also hypothesized that greater use of punitive discipline and reinforcement, as well as lack of discipline, would predict (3) lower levels of school connectedness and (4) higher rates of bullying and victimization. These hypotheses were partially confirmed by the results of the regression analyses. The following section of the discussion breaks these hypotheses down into four parts for more detailed explanation of findings and ease of interpretation.

(1) Greater use of restorative practices, fairness and behavioural boundaries predicts higher level of students' connectedness to school. – Yes. Higher levels of school connectedness were most strongly predicted by students' reports of fairness, more frequent use of restorative practices by teachers, and high behavioural boundaries, as hypothesized. This makes good sense, especially considering different aspects of restorative practices.

The composite variable *restorative practices* encompassed elements of emotional engagement, collaboration, student voice, as well as accountability and making amends for unacceptable behaviour (i.e., restitution). Being centered around meaningful dialogue and perspective taking, it is plausible that restorative approach to discipline not only demonstrates teacher caring and support, but also models socially competent behaviours in dealing with problematic situations. It is also rooted in the idea of interconnectedness and thus seeks cooperation and building student sense of belonging to school community. When combined with high behavioural expectations / boundaries and fair treatment of all students, such discipline promotes shared responsibility and healthy learning environments, where each one can feel safe in both a physical and an emotional sense. I further speculate that teachers who are strict but fair inspire interpersonal dignity by noble example rather than by rules and thus foster trust in their students, which is so important in teacher-student bond. Together, these findings contribute to the emerging evidence highlighting the role of positive discipline, fairness and use of restorative practices in promoting school connectedness in students. For example, this study provides further support for a secondary finding by Wong et al. (2011), that students from schools participating in two-year restorative program sustained their sense of school belonging and harmony as well as positive attitudes towards teachers, in contrast to students in non-program schools who showed a significant drop in

such characteristics. If the use of restorative practices predicts stronger feelings of school connectedness, it is rational that these practices can also mitigate the typical decline of connectedness to school and teachers in adolescents (Furrer & Skinner, 2003; Lynch & Cicchetti, 1997).

The outcomes discussed in this section also echo the findings by Cornell, Shukla and Konold (2016), whereby high disciplinary structure and teacher-student support was associated with higher student engagement (its both affective and cognitive components). In addition, the same parameters (i.e., structure and support) were also associated with higher course grades and higher educational aspirations, after controlling for student and school demographic variables. Such outcomes were not examined in current research, but it is possible that they could also be predicted by positive discipline variables studied here, considering consistent positive link between school connectedness and school achievement (e.g., Blum, 2005; McNeely, 2013; Monahan et al., 2010; Smith, 2014).

(2) Greater use of restorative practices, fairness and behavioural boundaries predicts lower rates of bullying and victimization. – Not quite. In predicting bullying and victimization from positive discipline components, only fairness found to be a significant (negative) predictor.

Contrary to the quasi-experimental evidence supporting the effectiveness of restorative practices in substantially reducing bullying behaviours in high school students in Hong-Kong (Wong et al., 2011), restorative practices and boundaries were non-significant variables in the current regression equations for bullying and victimization. Such results are consistent with the outcomes of longitudinal research conducted in the UK (Youth Justice Board of England and Wales; 2004), that found no difference in bullying / victimization

between schools that had adopted a restorative program for three years versus non-program schools. However, the current research was not intended for replication of these studies, nor for evaluation of some official restorative program, and thus the discrepancies in findings can have many explanations (such as for example cultural differences, implementation and commitment to restorative justice philosophy, and other nuances of using restorative practices), let alone the fundamental differences in research designs (longitudinal within-subject evaluations of baseline and post-intervention reports, vs. regression analyses at a one-point data collection). Therefore, only limited comparisons can be made in that regard.

Still, finding non-predictive relationships between restorative practices or boundaries and peer victimization was surprising, especially because the correlational analysis showed significant negative links between bullying / victimization and both restorative practices and boundaries. However, because each one moderately correlated with fairness (the highest r among all other predictors), restorative practices and boundaries might have lost their predictive power in the regression analyses. It is quite possible, that both of these factors would individually predict lower rates of peer victimization, but neither unique effect was significant when both entered in the model together with fairness.

In turn, in previous studies fairness also has come across as a protective factor for bullying and victimization. For example, Cornell et al. (2015), in their study with a large state-wide sample of eighth- and ninth-graders ($N = 39,364$) from 423 Virginia schools, found that school discipline characterized by consistent but fairly enforced rules (high structure) together with high teacher-student support (beyond academic) were associated with lower prevalence of teasing and bullying and general victimization. In a more recent study by Konishi et al. (2017), individual-level bullying was most strongly predicted by

inconsistent fairness and poor clarity of rules. In the present study, lack of fairness was the second strongest predictor of bullying and victimization; therefore such finding provides additional evidence for this line of research.

(3) Greater use of punitive discipline, reinforcement, and lack of discipline, predicts lower levels of school connectedness. – Mostly yes. As predicted, the use of punitive discipline and especially lack of discipline were negatively related to school connectedness. School discipline is crucial in creating safe and orderly learning environments. Inconsistent discipline (or lack of discipline) can be equated with failure to maintain positive and orderly learning environments, as it implies shortcomings in controlling for negative behaviours and essentially a lack of caring for students wellbeing and success. Therefore, such a finding is logical and further boosts the importance of maintaining consistent discipline for promoting school connectedness.

To recap, the variable labeled *punitive discipline* in this study comprised mainly exclusionary practices (i.e., use of suspensions and detentions) and use of shaming strategies. Therefore, finding that punitive discipline predicted lower connectedness to school in students echoes the evidence from previous research on punitive and exclusionary discipline practices. For example, studies evaluating the effects of zero tolerance policies suggest that over-reliance on suspensions and expulsions is linked to student disengagement from educational process and dropouts (e.g., see reviews of American Psychological Association Zero Tolerance Task Force, 2008; Skiba, 2014). Specifically, McNeely, Nonnemaker and Blum (2002) found that difficult classroom management climates and harsh discipline policies, among other school characteristics, were linked to lower levels of student school connectedness (data was drawn from the National Longitudinal Study of Adolescent Health

with 75,515 students in 127 US schools). The current study contributes to this literature by suggesting that managing student behaviour through punitive and exclusionary approaches to discipline is not necessarily a better alternative to no discipline, as it is similarly related to low school attachment in students.

Contrary to expectations, teacher use of reinforcement for managing student behaviour was a significant positive predictor of school connectedness. This was an interesting but not an unforeseen outcome, since, in the correlational analysis, reinforcement was also very weakly but positively linked to connectedness, as well as to restorative practices and boundaries. One possible explanation for the present findings is that teachers can use reinforcement together with other positive discipline strategies, as an alternative to harsh discipline. Still, reinforcement also moderately correlated with punitive discipline, and very weakly but significantly with unfairness. Such ambiguity implies that positive reinforcement can be regarded by students both as positive or negative discipline strategy, and thus must only be utilized with caution. The next section reviews evidence that reveals the flip side of using reinforcement.

(4) Greater use of punitive discipline, reinforcement, and lack of discipline, predicts higher rates of bullying and victimization. – Yes. Lack of discipline was the strongest predictor of both bullying and victimization, followed by punitive discipline. Although reinforcement did not matter in rates of victimization, it was a significant positive predictor of self-reported bullying. Together, these outcomes suggest that students who bully others or feel victimized perceive discipline to be inconsistent, exclusionary and shaming (punitive practices), as well as largely unfair.

Such findings once more are consistent with the outcomes of Konishi et al.'s (2017) research, which suggested that bullying was most strongly predicted by discipline lacking in consistency, fairness and clarity (as discussed in the section above). The present study extends these findings by supporting the fundamental argument in favor of positive discipline, that the use of punishment and consequences not only directly compromises positive teacher-student and classroom dynamics, but it might be also indirectly promoting power imbalances among students (e.g., Ginott 1972; Gossen, 1998; Stutzman-Amstutz & Mullet, 2014). To elaborate, punitive strategies and negative reinforcement combine coercion, dominance and/ or threats, which are typically disempowering and demeaning in their properties. Thus, by relying mainly on such discipline as a way of dealing with displeasing or in compliant behaviours in classroom, teachers might inadvertently model bullying and victimization to students. For instance, as Gossen (1998) explained, in their reaction to punishments students often rebel, either explicitly against the teacher, or implicitly, by redirecting their frustration toward another student instead, thereby perpetuating the cycle of interpersonal aggression. Yoon and Bauman (2014) stressed that even punishing a bully in front of others serves an example of power misuse and thus might potentially perpetuate bullying.

Of course, no causality can be inferred from results of a regression analyses, and neither can it be assumed from the current research that low school connectedness, bullying and victimization are the outcomes of inconsistent, exclusionary, and unfair discipline. It is possible that students who do not feel strongly connected to school, and who (also) are victimized or who bully others tend to view discipline as unjust. In reality, students who rated low on connectedness to school, and those who reported more frequent involvement in

bullying and / or experience of victimization could have been the same individuals, as bully and victim are sometimes the revolving roles in those who struggle in pursuit for empowerment. According to the bivariate correlation analysis (see Table 3), there was a moderate positive link between bullying and victimization and modest negative link between victimization and connectedness, as well as weak but significant link between bullying and connectedness. This confirms that at least some students who feel victimized also bully others and vice versa, and that they might have the lowest connectedness amongst others, although it is beyond the scope of this analysis to make predictions about these relationships.

Overall, the results of the present study suggest that, on the one hand, restorative discipline with its relational ethics, together with fairness and boundaries intended to support the interests of the whole school community and to protect the wellbeing of all its members, offer a promise in fostering school connectedness and positive interpersonal relationships. On the other hand, teacher discipline strategies that can be seen by students as inconsistent, exclusionary, unfair, or shaming, pose a substantial threat to school connectedness and fail to prevent or might even perpetuate peer aggression and power imbalances.

The intriguing finding that neither restorative practices nor behavioural boundaries were significant in predicting rates of bullying and victimization, raises one important question: can restorative discipline be set aside from fairness and boundaries as a separate entity? Specifically, if students feel like a teacher is being unfair and punitive in their responses to frustrating student behaviours, while promoting collaboration and restorative justice in students' interpersonal conflicts, what possible message could this teacher communicate to the class?

Some evidence suggests that restorative justice in schools is still adopted predominately as a *strategy* for changing student behaviour alongside the default traditional tactics, rather than a philosophical approach to pedagogy, rooted in the ideas of interconnectedness, respect and dignity of all individuals. For instance, McCluskey et al. (2011) identified the reluctance among the UK teachers embracing restorative justice ethos to let go of their authoritarian power to punish and exclude, and thus questioned the integrity of their discipline approaches entailing “both a treat and a potential solution” at once (p. 115). Similarly, in a Canadian study, examining the impact of restorative justice training on teacher pedagogy, Vaandering (2014) revealed how restorative practices situated in the discourse of behaviour management inadvertently reinforced an agenda of compliance and control, rather than encouraging the culture of interconnectedness. Morrison and Vaandering (2012) stressed that “traditional institutional practices can generate defiance, undermining an individual’s capacity and willingness to cooperate in core facets of social life” (p. 141). Could this be what we see in students who admittedly bully others and those who struggle to evade the cycle of victimization?

5.1. Strengths, limitations and future directions

This research makes an important contribution in the field of educational research, praxis and philosophy by examining the role of various teacher discipline practices on student interpersonal dynamics and their sense of connectedness to school. It is the first study in the field that sought to combine and examine both traditional and restorative approaches to school discipline as well as its crucial dimensions such as fairness, boundaries and consistency (or lack of discipline). It is hoped that this new measure of discipline will be validated through further research and continue to shed light on the role of its six distinct

facets in many other academic and psychological outcomes in students, as well as in school and classroom ecologies, for the ongoing improvement of quality of education and school life. It is also one of very few studies that have looked at the school connectedness and peer victimization as outcomes of quotidian teacher practices, rather than the outcomes of some formal intervention or program.

As with any research, however, it is important to point out the study limitations and to propose possible future directions for the advancement of knowledge in this domain. First, the study of discipline tactics was exploratory in its purpose. Although the resulting discipline measure showed fairly good internal consistency, it has not been externally validated, and thus more studies are required to legitimize its use as an effective assessment tool of school discipline. Second, the study is limited to one urban school district in Canada, and to a specific age group. Although the sample was ethnically diverse, there is yet no sufficient data to generalize these findings to other regions, and to younger or older students. It is noteworthy that in many other countries punitive discipline may also involve corporal punishment, however in this study it was limited to mainly exclusionary and shaming practices relevant to Canadian schools. Overall, more replications are necessary to test the applicability of the predictions of this research to wider populations and settings.

Third, linear regression models (including hierarchical linear regression) examine phenomena solely at individual level, while neglecting the shared variance among participants. However, the data used in this study is nested at two levels: students are nested within classrooms and classrooms are nested within schools. Results of analyses of variance revealed significant differences across schools. Therefore, analyses that allow for exploration of nested data (i.e., Hierarchical Linear Modeling), rather than simply controlling for these

differences could produce more elaborate predictions about students who also share same teacher / classroom and/or school. Considering that in Canada students in grades 4-7 typically remain in the same class groups, it would be especially interesting to compare differences in classroom dynamics on the links between discipline and feelings of connectedness and interpersonal aggression outcomes. Lastly, this research was correlational by design, and hence no effects can be interpreted as causal. Thorough quasi-experimental studies of these phenomena would substantially extend the scope of inferences and their implications for educational practices. Also, it could be interesting to examine how teacher self-reports of their discipline approaches compare with student perceptions of their practices. For ethical considerations, discipline questions in this study were framed to inquire about discipline practices of teachers generally, rather than students' classroom teacher.

5.2. Concluding remarks and implications

Teacher approach to school discipline is central in creating a positive inclusive environment within their classrooms where students can have opportunities to build social competencies, feel connected and valued. However, discipline is often understood solely in terms of classroom order and student obedience to teacher authority, classroom compliance, and unquestionable conformity to school rules. Thus, it is typically the individuals who are blamed for their misbehaviour or defiance. The present study negates the effectiveness of punitive strategies and advocates for discipline that is rooted in interpersonal wellbeing and engages students morally and emotionally in collaborative problem solving through reflective dialogue and fair process. This is more than a pedagogic approach or a concrete strategy, but rather a teaching philosophy that entails personal curiosity, professional growth and continuous reflection on one's role as an educator and educational practices. What is a

more powerful lesson than a teacher modeling socially competent behaviours that they want to see in students through their own discipline approach?

References

- Advancement Project & The Civil Rights Project. (2000). *Opportunities suspended: The devastating consequences of zero tolerance and school discipline policies*. Harvard University, Washington, DC. Retrieved January 6th, 2017, from: <https://www.civilrightsproject.ucla.edu/research/k-12-education/school-discipline/opportunities-suspended-the-devastating-consequences-of-zero-tolerance-and-school-discipline-policies/crp-opportunities-suspended-zero-tolerance-2000.pdf>
- Ahmed, E. (2008). 'Stop it, that's enough': Bystander intervention and its relationship to school connectedness and shame management. *Vulnerable Children and Youth Studies*, 3(3), 203-213. doi:10.1080/17450120802002548
- American Psychological Association Zero Tolerance Task Force. (2008). Are zero tolerance policies effective in the schools? An evidentiary review and recommendations. *American Psychologist*, 63, 852–862. Retrieved January 6th, 2017 from: <https://www.apa.org/pubs/info/reports/zero-tolerance.pdf>
- Armour, M. (2013). *North East Independent School District: Ed White Middle School restorative discipline evaluation: Implementation and impact, 2012–2013 sixth grade*. The Institute for Restorative Justice and Restorative Dialogue. The University of Texas at Austin.
- Baker, M. (2009). *DPS Restorative Justice Project: Year three*. Denver, CO: Denver Public Schools.
- Bauman, S., Del Rio, A. (2005). Knowledge and Beliefs about Bullying in Schools. *School Psychology International* 26, 428–442.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental motivation. *Psychological Bulletin*, 117(3), 497-529.
- Bear, G. G., (2013). Teacher resistance to frequent rewards and praise. Lack of skills or a wise decision? *Journal of Educational Psychological Consultation*, 23(4), 318-340.
- Bear, G. G., (2015). Preventative classroom management. In E. T. Emmer & E. J. Sabornie (Eds.), *Handbook of classroom management* (2nd edition) (pp. 15-39). New York: Routledge.
- Bear, G. G., Gaskins, C., Blank, J., & Chen, F. F. (2011). Delaware school climate survey – student: Its factor structure, concurrent validity, and reliability. *Journal of School Psychology*, 49, 157-174. doi.org/10.1016/j.jsp.2011.01.001
- Benbenishty, R. & Astor, R.A. (2012). Making a case for an international perspective on school violence: Implications for theory, research, policy and assessment. In S.R. Jimerson, A.B. Nickerson, M.J. Mayer, & M. J. Furlong (Eds.) *Handbook of School Violence and School Safety* (pp. 15-26). NY: Routledge.

- Berkowitz, K. (2012) Restorative Practices Whole-School Implementation Guide. (San Francisco: San Francisco Unified School District).
- Blum, R. W. (2005). A Case for School Connectedness. *Education Leadership*, 16-20.
- Bond, L., Butler, H., Thomas, L., Carlin, J., Glover, S., Bowes, G., & Patton, G. (2007). Social and school connectedness in early secondary school as predictors of late teenage substance use, mental health, and academic outcomes. *Journal of Adolescent Health*, 40(4), 357.e9-357.e18. doi:10.1016/j.jadohealth.2006.10.013
- Bradshaw, C. P. (2015). Translating research to practice in bullying prevention. *The American Psychologist*, 70(4), 322-332. doi:10.1037/a0039114
- Bradshaw, C. P., Sawyer, A. L., & O'Brennan, L. M. (2007). Bullying and peer victimization at school: Perceptual differences between students and school staff. *School Psychology Review*, 36, 361–382.
- Brendtro, L. K., Brokenleg, M., & Van Bockern, S. (1990). *Reclaiming youth at risk: Our hope for the future*. Bloomington, Ind: National Educational Service.
- Brown, M. R., Higgins, K., & Paulsen, K. (2003). Adolescent alienation: What is it and what can educators do about it? *Intervention in School and Clinic*, 39(1), 3-9. doi:10.1177/10534512030390010101
- Bursens, D., & Vettenburg, N. (2006). Restorative group conferencing at school: A constructive response to serious incidents. *Journal of School Violence*, 5(2), 5–17. doi:10.1300/ J202v05n02_02
- Centers for Disease Control and Prevention. (2011). Fostering School Connectedness: Staff Development Program. Fostering School Connectedness: Staff Development Program Facilitator's Guide. Atlanta, GA, USA: Centers for Disease Control and Prevention.
- Cerny, C.A., & Kaiser, H.F. (1977). A study of a measure of sampling adequacy for factor-analytic correlation matrices. *Multivariate Behavioral Research*, 12(1), 43-47.
- Council of State Governments Justice Center. (2011). Breaking school rules: A statewide study of how school discipline relates to students' success and juvenile justice involvement. Retrieved January 8th, 2017, from https://csgjusticecenter.org/wp-content/uploads/2012/08/Breaking_Schools_Rules_Report_Final.pdf
- Cornell, D., Shukla, K., & Konold, T. (2015). Peer victimization and authoritative school climate: A multilevel approach. *Journal of Educational Psychology*, 107(4), 1186-1201. doi:10.1037/edu0000038
- Cornell, D., Shukla, K., & Konold, T. R. (2016). Authoritative school climate and student academic engagement, grades, and aspirations in middle and high schools. *AERA Open*, 2(2), 1 - 18. doi:10.1177/2332858416633184

- Craig, W.M., Pepler, D.J., & Atlas, R. (2000). Observations of bullying in the playground and in the classroom. *School Psychology International, 21*(1), 22-36
- Craig, W. M., Pepler, D., & Blais, J. (2007). Responding to bullying: What works? *School Psychology International, 28*(4), 465–477.
- Cunningham, N. J. (2007). Level of bonding to school and perception of the school environment by bullies, victims, and bully victims. *The Journal of Early Adolescence, 27*, 457–478.
- Davis, F. (2014). Discipline with dignity: Oakland classrooms try healing instead of punishment. *Reclaiming Children and Youth, 23*(1), 38–41.
- Deci, E. L., Koestner, R., Ryan, R. M., & Cameron, J. (2001). Extrinsic rewards and intrinsic motivation in education: Reconsidered once again: Comment/Reply. *Review of Educational Research, 71*(1), 1.
- Dodge, K. A., Coie, J. D., & Lynam, D. (2006). Aggression and antisocial behavior in youth. In W. Damon & R. M. Lerner (Series Eds.), & N. Eisenberg (Vol. 336 G. G. Bear Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 719–788). New York, NY: Wiley.
- Eccles, J. S., & Roeser, R. W. (2015). School and community influences on human development. In M. H. Bornstein & M. E. Lamb (Eds.), *Developmental science: An advanced textbook* (pp. 645 - 728). New York: Psychology Press
- Edwards, D., & Mullis, F. (2001). Creating a sense of belonging to build safe schools. *The Journal of Individual Psychology, 57* (2), 196-203.
- Fredricks, J.A., Blumenfeld, P.C., & Paris, A.H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research, 74*(4), 59-109.
- Frey, A., Ruchkin, V., Martin A., & Schwab-Stone, M. (2009). Adolescents in transitions: School and family characteristics in the development of violent behaviours entering high school. *Child Psychiatry and Human Development, 40*, 1-13.
- Fronius, T., Persson, H., Guckenburger, S., Hurley, N., & Petrosino, A. (2016). *Restorative justice in U.S. schools: A research review*. San Francisco: WestEd. Retrieved February 11th, 2017, from http://jprc.wested.org/wp-content/uploads/2016/02/RJ_Literature-Review_20160217.pdf
- Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95* (1), 148-162.
- Galloway, D., & Roland, E. (2004). Is the direct approach to reducing bullying always the best? In K. Rigby (Ed.), *Bullying in schools: How successful can interventions be?* (pp 37–53). New York, NY: Cambridge University Press.

- Ginott, H. G. (1972). *Teacher and child: A book for parents and teachers*. New York: Macmillan.
- Glasser, W. (1968). *Schools without failure* ([1st]. ed.). New York: Harper & Row.
- Glasser, W. (1993). *The quality school teacher* (1st ed.). New York: HarperPerennial.
- Glasser, W. (1998). *Choice theory: A new psychology of personal freedom* (1st ed.). New York: Harper Collins Publishers.
- Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books.
- Gordon, T. (1989). *Teaching children self-discipline at home and at school* (1st ed.). New York: Times Books.
- Gossen, D. (1992). *Restitution Restructuring School Discipline*. Chapel Hill, NC: New View Publications
- Gossen, D. (1998). Restitution: Restructuring school discipline. *Educational Horizons*, 76(4), 182-188.
- Gregory, A., Cornell, D., Fan, X., Sheras, P., Shih, T., Huang, F. (2010). Authoritative school discipline: High school practices associated with lower bullying and victimization. *Journal of Educational Psychology*, 102(2), 483-496. doi.org/10.1037/a0018562
- Grossi, P. K., & dos Santos, A. M. (2012). Bullying in Brazilian schools and restorative practices. *Canadian Journal of Education*, 35(1), 120–136.
- Hantzopoulos, M. (2013). The fairness committee: Restorative justice in a small urban public high school. *Prevention Researcher*, 20(1), 7–10.
- Heaviside, S., Rowand, C., Williams, C., & Farris, E. (1998). Violence and Discipline in U.S. Public Schools: 1996-97. (NCES Rep. No. 98-30). Washington, DC: U.S. Department of Education, National Centre for Educational Statistics.
- Hektner, J. M., & Swenson, C. A. (2012). Links from teacher beliefs to peer victimization and bystander intervention: Tests of mediating processes. *Journal of Early Adolescence*, 32, 516-536. doi: 10.1177/0272431611402502
- Hoffman, D. M. (2009). Reflecting on social emotional learning: A critical perspective on trends in the United States. *Review of Educational Research*, 79(2), 533-556. doi:10.3102/0034654308325184
- Hymel, S., & Swearer, S.M. (2015). Four decades of research on school bullying: An introduction. *American Psychologist*, 70(4), 293-299.

- Jain S., Bassey H., Brown M. A., Kalra P. (2014). *Restorative justice in Oakland Schools. Implementation and impact: An effective strategy to reduce racially disproportionate discipline, suspensions, and improve academic outcomes*. Retrieved March 8th, 2017, from <https://www.ousd.org/cms/lib/CA01001176/Centricity/Domain/134/OUUSD-RJ%20Report%20revised%20Final.pdf>
- James, D. J., Lawlor, M., Courtney, P., Flynn, A., Henry, B., & Murphy, N. (2008). Bullying behaviour in secondary schools: What roles do teachers play? *Child Abuse Review*, 17(3), 160-173. doi:10.1002/car.1025
- James, D. J., Lawlor, M., Courtney, P., Flynn, A., Henry, B., & Murphy, N. (2008). Bullying behaviour in secondary schools: What roles do teachers play? *Child Abuse Review*, 17(3), 160-173. doi:10.1002/car.1025
- Janosz, M., Archambault, I., Pagani, L. S., Pascal, S., Morin, A. J. S., & Bowen, F. (2008). Are there detrimental effects of witnessing school violence in early adolescence? *Journal of Adolescent Health*, 43(6), 600-608. doi:10.1016/j.jadohealth.2008.04.011
- Johnson, S. L. (2009). Improving the school environment to reduce school violence: A review of the literature. *The Journal of School Health*, 79(10), 451-465. doi:10.1111/j.1746-1561.2009.00435.x
- Jones, T. H. (2013). *Restorative Justice in School Communities: Successes, Obstacles, and Areas for Improvement*. (Unpublished master's thesis). The University of Texas, Austin, TX
- Kane, J., Lloyd, G., McCluskey, G., Maguire, R., Riddell, S., Stead, J., & Weedon, E. (2009). Generating an inclusive ethos? Exploring the impact of restorative practices in Scottish schools. *International Journal of Inclusive Education*, 13(3), 231-251.
- Karcher, M. J. (2004). Connectedness and school violence: A framework for developmental interventions. In E. Gerler (Ed.), *Handbook of school violence* (pp. 7-42). Binghamton, NY: Haworth Press.
- Karcher, M. J., Holcomb, M. & Zambrano, E. (2008). Measuring adolescent connectedness: A guide for school-based assessment and program evaluation. In H. L. K. Coleman & C. Yeh (Eds.), *Handbook of School Counseling* (pp. 649-669). Mahwah: Lawrence Erlbaum.
- Karp, D. R., & Breslin, B. (2001). Restorative justice in school communities. *Youth & Society*, 33(2), 249-272. doi: 10.1177/0044118X01033002006
- Kasen S., Berenson K., Cohen P., Johnson, J. G. (2004). The Effects of School Climate on Changes in Aggressive and Other Behaviours Related to Bullying. In *Bullying in American Schools: A Social-Ecological perspective on prevention and intervention*, Espelage DL, Swearer SM (eds). Lawrence-Erlbaum Associates: New Jersey.
- Kaveney, K., & Drewery, W. (2011). Classroom meetings as a restorative practice: A study

- of teachers' responses to an extended professional development innovation. *International Journal of School Disaffection*, 8(1), 5–12.
- Klem, A. M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health*, 74(7), 262–273.
- Kohn, A. (1993). *Punished by rewards: The trouble with gold stars, incentive plans, A's, praise, and other bribes*. Boston, MA: Houghton Mifflin.
- Konishi, C., Miyazaki, Y., Hymel, S., & Waterhouse, T. (2017). Investigating associations between school climate and bullying in secondary schools: Multilevel contextual effects modeling. *School Psychology International*, 38(3), 240-263
- Langille, D., Rasic, D., Kisely, S., Flowerdew, G., & Cobbett, S. (2012). Protective associations of school connectedness with risk of depression in nova scotia adolescents. *The Canadian Journal of Psychiatry*, 57(12), 759-764.
doi:10.1177/070674371205701208
- Lester, L., Waters, S., & Cross, D. (2013). The Relationship Between School Connectedness and Mental Health During the Transition to Secondary School: A Path Analysis. *Australian Journal of Guidance and Counselling*, 23(2), 157-171.
doi:10.1017/jgc.2013.20
- Lynch, M., & Cicchetti, D. (1997). Children's relationships with adults and peers: An examination of elementary and junior high school students. *Journal of School Psychology*, 35(1), 81-99.
- Marzano, R. J., & Marzano, J. S. (2003). The Key to Classroom Management. *Educational Leadership*, 61(1), 6-13. Retrieved February 11th, 2017, from <http://www.ascd.org/publications/educational-leadership/sept03/vol61/num01/The-Key-to-Classroom-Management.aspx>
- Marzano, R. J., Marzano, J. S., & Pickering, D. J. (2003). *Classroom management that works*. Alexandria, VA: ASCD.
- Mayworm, A. M., Sharkey, J. D., Hunnicutt, K. L., & Schiedel, K. C. (2016). Teacher consultation to enhance implementation of school-based restorative justice. *Journal of Educational and Psychological Consultation*, 26(4), 385-412.
doi:10.1080/10474412.2016.1196364
- McCluskey, G., Kane, J., Lloyd, G., Stead, J., Riddell, S., & Weedon, E. (2011). “Teachers are afraid we are stealing their strength”: A risk society and restorative approaches in school. *British Journal of Educational Studies*, 59, 105–119.
doi:10.1080/00071005.2011.565741
- McCold, P. (2008). Evaluation of a restorative milieu: Restorative practices in context. In H. Ventura-Miller (Ed.), *Restorative justice: From theory to practice* (pp. 99–138). Bingley, UK: Emerald Insight.

- McNeely, C. (2013). School Connectedness. In J. Hattey, E. M. Anderman, J. Hattey, & E. M. Anderman (Eds.), *International Guide to Student Achievement* (p. 528). New York, NY: Routledge.
- McNeely, C. A., Nonnemaker, J. M., & Blum, R. W. (2002). Promoting school connectedness: Evidence from the National Longitudinal Study of Adolescent Health. *Journal of School Health, 72*, 138–146.
- Meyer-Adams, N., & Conner, B. T. (2008). School violence: Bullying behaviors and the psychosocial school environment in middle schools. *Children and Schools, 30*(4), 211–221.
- Mirsky, L. (2007). SaferSanerSchools: Transforming school cultures with restorative practices. *Reclaiming Children and Youth: The Journal of Strength-Based Interventions, 16*(2), 5-12.
- Monahan, K. C., Oesterle, S., Hawkins, J. D. (2010). Predictors and consequences of school connectedness: the case for prevention. *The Prevention Researcher, 17*(3), 3-6.
- Morgan, E., Salomon, N., Plotkin, M., & Cohen, R. (2014). *The school discipline consensus report: Strategies from the field to keep students engaged in school and out of the juvenile justice system*. New York: The Council of State Governments Justice Centre.
- Morrison, B., & Vaandering, D. (2012). Restorative justice: Pedagogy, praxis, and discipline. *Journal of School Violence, 11*(2), 138–155.
- Morrison, B., Blood, P., & Thorsborne, M. (2005). Practicing restorative justice in school communities: The challenge of culture change. *Public Organization Review: A Global Journal, 5*, 335-357.
- Mrug, S., & Windle, M. (2009). Bidirectional influences of violence exposure and adjustment in early adolescence: Externalizing behaviors and school connectedness. *Journal of Abnormal Child Psychology, 37*(5), 611-623. doi:10.1007/s10802-009-9304-6
- Nese, R., Horner, R., Rossetto Dickey, C., Stiller, B., & Tomlanovich, A. (2014). Decreasing bullying behaviors in middle school: Expect Respect. *School Psychology Quarterly, 29*, (3) 272-286.
- New York City School-Justice Partnership Task Force (2013). *Keeping kids in school and out of court: Report and recommendations*. New York State Permanent Judicial Commission on Justice for Children. Retrieved January 6th, 2017, from <https://www.nycourts.gov/ip/justiceforchildren/PDF/NYC-School-JusticeTaskForceReportAndRecommendations.pdf>
- Nocera, E. J., Whitbread, K. M., & Nocera, G. P. (2014). Impact of school-wide positive behavior supports on student behavior in the middle grades. *RMLE Online, 37*(8), 1-14. doi:10.1080/19404476.2014.11462111

- Noddings, N. (2006). Handle with care. *Greater Good. Spring / Summer, 2006*, 18-21.
- Olley, R. I., Cohn, A., & Cowan, K. C. (2010). Promoting safe schools and academic success: Moving your school from punitive discipline to effective discipline. *Communique*, 39(1), 7.
- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Cambridge, MA: Blackwell.
- Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research*, 70, 323–367.
- Pauk, J. L. & Smith, T. J., eds. (2000). *Stories out of school: Memories and reflections on care and cruelty in the classroom*. Stamford, CT: Ablex Publishing.
- RasKauskas, Gregory, Harvey, Rifshana, and Evans (2010)
- Reimer, K. (2011). An exploration of the implementation of restorative justice in an Ontario public school. *Canadian Journal of Educational Administration and Policy*, 119, 1–42.
- Reistenberg, N. (2011). Seeding Restorative Measures in Minnesota: Challenging Opportunities [ESRC-funded Seminar Series]. Retrieved February 11th, 2017, from <http://www.educ.cam.ac.uk/research/projects/restorativeapproaches/seminarfour/N%20Reistenberg.pdf>
- Resnick, M. D., Harris, L. J., & Blum, R. W. (1993). The impact of caring and connectedness on adolescent health and well-being. *Journal of Pediatrics and Child Health*, 29(s1), s3–s9.
- Resnick, M. D., Ireland, M., & Borowsky, I. (2004). Youth violence perpetration: What protects? What predicts? Findings from the national longitudinal study of adolescent health. *Journal of Adolescent Health*, 35(5), 424.e1-424.e10. doi:10.1016/j.jadohealth.2004.01.011
- Roorda, D. L., Koomen, H. M., Spilt, J. L., & Oort, F. J. (2011). The influence of affective teacher–student relationships on students' school engagement and achievement: A meta-analytic approach. *Review of Educational Research*, 81(4), 493–529.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78. doi:10.1037/0003-066X.55.1.68
- Sabol, T. J., & Pianta, R. C. (2012). Recent trends in research on teacher–child relationships. *Attachment and Human Development*, 14(3), 213–231.
- Schulz, L. L. (2011). Targeting school factors that contribute to youth alienation: Focused school counseling programs. *Journal of Instructional Psychology*, 38(2), 75-83.

- Sharkey, J. D., & Fenning, P. A. (2012). Rationale for designing school contexts in support of proactive discipline. *Journal of School Violence, 11*(2), 95-104. doi:10.1080/15388220.2012.646641
- Shaw, G. (2007). Restorative practices in Australian schools: Changing relationships, changing culture. *Conflict Resolution Quarterly, 25*, 127–135. doi: 10.1002/crq.198
- Shochet, I. M., & Smith, C. L. (2014). A prospective study investigating the links among classroom environment, school connectedness, and depressive symptoms in adolescents. *Psychology in the Schools, 51*(5), 480-492. doi:10.1002/pits.21759
- Schonert-Reichl, K. A., & Hymel, S. (2007). Educating the heart as well as the mind: Social and emotional learning for school and life success. *Education Canada, 47*(2), 20-25.
- Simonsen, B., Jeffrey-Pearsall, J., Sugai, G., & McCurdy, B. (2011). Alternative setting-wide positive behavior support. *Behavioral Disorders, 36*(4), 213-224.
- Skiba, R.J. (2014). The failure of zero tolerance. *Reclaiming Children and Youth, 22*(4), 27-33
- Skiba, R., Simmons, A., Staudinger, L., Rausch, M., Dow, G., & Feggins, R. (2003, May). *Consistent removal: Contributions of school discipline to the school–prison pipeline*. Paper presented at the School to Prison Pipeline Conference, Cambridge, MA.
- Skues, J. L., Cunningham, E. G., & Pokharel, T. (2005). The influence of bullying behaviours on sense of school connectedness, motivation and self-esteem. *Journal of Psychologists and Counsellors in Schools, 15*(1), 17-26.
- Smith, A. S. (2014). From Hastings Street to Haida Gwaii: Provincial results of the 2013 BC Adolescent Haida Gwaii: Provincial results of the 2013 BC Adolescent. Vancouver, BC: McCreary Centre Society.
- Solomon, D., Battistich, V., Watson, M., Schaps, E., & Lewis, C. (2000). A six-district study of educational change: Direct and mediated effects of the Child Development Project. *Social Psychology of Education, 4*, 3-51. doi:10.1023/A:1009609606692
- Staples, J. S. (2000). Violence in schools: Rage against a broken world. *Annals of the American Academy of Political and Social Science, 567*, 30-41.
- Stinchcomb, J. B., Bazemore, G., & Riestenberg, N. (2006). Beyond Zero Tolerance: Restoring Justice in Secondary Schools. *Youth Violence and Juvenile Justice, 4*(2), 123-147.
- Stutzman-Amstutz, L. & Mullet, J.H. (2014). *The little book of restorative discipline for schools*. New York, NY: Skyhorse Publishing
- Sugar, I. (2012). *Measurement of School Connectedness (MOSC) modified connectedness questionnaire for secondary schools*, ProQuest Dissertations Publishing. A

Dissertation Presented to the Faculty of the USC Rossier School of Education
University of Southern California

- Sumner, D., Silverman, C., & Frampton, M. (2010). *School-based restorative justice as an alternative to zero-tolerance policies: Lessons from West Oakland*. Berkeley: University of California, Berkeley, School of Law.
- Swearer, S. M., & Hymel, S. (2015). Understanding the psychology of bullying: Moving toward a social-ecological diathesis-stress model. *The American Psychologist, 70*(4), 344-353.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Boston: Pearson/Allyn & Bacon.
- Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development, 88*(4), 1156–1171. doi:10.1111/cdev.12864
- Terry A. 1998. Teachers as targets of bullying by their pupils: A study to investigate incidence. *British Journal of Educational Psychology, 68*, 255-268.
- Troop-Gordon, W., & Ladd, G. W. (2015). Teachers' victimization related beliefs and strategies: Associations with students' aggressive behavior and peer victimization. *Journal of Abnormal Child Psychology, 43*(1), 45-60.
- Twemlow, S. W., Fonagy, P., Sacco, F. C., & Brethour, J. R. (2006). Teachers who bully students: A hidden trauma. *International Journal of Social Psychiatry, 52*(3), 187-198. doi:10.1177/002076400606067234
- Vaandering, D. (2014). Implementing restorative justice practice in schools: What pedagogy reveals. *Journal of Peace Education, 11*(1), 64-80. doi:10.1080/17400201.2013.794335
- Vadeboncoeur, J. A. & Collie, R. J. (2013). Locating social and emotional learning in schooled environments: A Vygotskian perspective on learning as unified. *Mind, Culture, and Activity, (20)*3, 201-225
- Vaillancourt, T., McDougall, P., Hymel, S., Krygsman, A., Miller, J., Stiver, K., & Davis, C. (2008). Bullying: Are researchers and children/youth talking about the same thing? *International Journal of Behavioral Development, 32*, 486 – 495.
- Waasdorp, T. E., Bradshaw, C. P., Leaf, P. J. (2012). The Impact of Schoolwide Positive Behavioral Interventions and Supports on Bullying and Peer Rejection: A Randomized Controlled Effectiveness Trial. *Arch Pediatr Adolesc Med. 166*(2): 149-156. doi:10.1001/archpediatrics.2011.755
- Wachtel, T. (2013). Defining restorative. *International Institute for Restorative Practices*.

- Retrieved February 11th, 2017, from: <https://www.iirp.edu/pdf/Defining-Restorative.pdf>
- Wang, M. C., Haertel, G. D., & Walberg, H. J. (1993). Toward a knowledge base for school learning. *Review of Educational Research*, 63(3), 249–294.
- Waters, S. K., Cross, D. S. and Runions, K. (2009). Social and ecological structures supporting adolescent connectedness to school: A theoretical model. *Journal of School Health*, 79, 516–524. doi:10.1111/j.1746-1561.2009.00443
- Wentzel, K. R. (2003). Motivating students to behave in socially competent ways. *Theory into Practice*, 42(4), 319-326. doi:10.1207/s15430421tip4204_9
- Williams, M. N., Grajales, C., A., & Kurkiewicz, D. (2013). Assumptions of multiple regression: Correcting two misconceptions. *Practical Assessment*, 18(11), 1-14.
- Wilson, D. (2004). The interface of school climate and school connectedness and relationships with aggression and victimization. *Journal of School Health*, 74(7), 293-299. doi:10.1111/j.1746-1561.2004.tb08286
- Wong, D. S. W., Cheng, C. H. K., Ngan, R. M. H., & Ma, S. K. (2011). Program effectiveness of a restorative whole-school approach for tackling school bullying in hong kong. *International Journal of Offender Therapy and Comparative Criminology*, 55(6), 846-862. doi:10.1177/0306624X10374638
- Yoon, J., & Bauman, S. (2014). Teachers: A critical but overlooked component of bullying prevention and intervention. *Theory into Practice*, 53(4), 308-314.
- You, S., Furlong, M. J., Felix, E., Sharkey, J. D., Tanigawa, D., & Green, J. G. (2008). Relations among school connectedness, hope, life satisfaction, and bully victimization. *Psychology in the Schools*, 45(5), 446-460. doi:10.1002/pits.20308
- Youth Justice Board of England and Wales (2004). *National Evaluation of the Restorative Justice in Schools Programme*. London, UK. Retrieved March 8th, from [http://creducation.net/resources/National Eval RJ in Schools Full.pdf](http://creducation.net/resources/National_Eval_RJ_in_Schools_Full.pdf)
- Zimmer-Gembeck, M.J., & Collins, W.A. (2003). Autonomy development during adolescence. In G.R. Adams & M. Berzonsky (Eds.), *Blackwell Handbook of adolescence* (pp. 175-204). Oxford: Blackwell Publishers.

Appendices

Appendix A: Original List of Discipline Questions, Separated by Construct

Consequences for misbehaviour:

1. If students misbehave, they lose privileges (for example, losing points, recess or computer time).
2. Students who misbehave get extra work to do.
3. If a student breaks the rules, they get detentions (have to stay after school).
4. Students who break the rules repeatedly get suspended or expelled from school.

Punitive shaming:

5. Students are sent to the office for talking back to the teacher.
6. Adults at this school yell at students who misbehave.
7. If a student misbehaves, they get sent out of the class.
8. If a student misbehaves, they are singled-out in front of the class (for example, standing in corner, desk separated from others).

Contingent rewards:

9. Teachers openly praise students who behave well to set an example for other students.
10. Students who behave well get rewards or tokens.
11. Students who behave well get extra privileges (for example, special roles, extra recess or computer time).

Lack of discipline:

12. Students in this school get away with bad behaviour.
13. Students get away with talking back to a teacher.
14. Students get away with threatening and bullying others in this school.
15. Teachers just ignore it when students are mean to each other.

Collaborative discipline:

16. If there is a problem or conflict in school, we learn how to avoid it in the future.
17. Students here are taught how to solve conflicts with others peacefully.
18. Teachers help students figure out why conflicts happen between students.
19. When two students have a conflict, the teachers help them talk it out.
20. When students cause trouble, adults at school teach them how to do things better.

Restitution:

21. Students are taught to be responsible for their actions.
22. When students do something wrong, they have a chance to make it right.
23. When student breaks rules, they have to find a way to fix it.
24. If a student hurts another student in this school, they have to do something to make up for the trouble they cause.

Student voice:

25. Students get a chance to tell how they feel when bad things happen.

26. When bad things happen, teachers ask students to share their ideas about what happened and how to make things better.
27. When students are caught doing something wrong, they get a chance to explain it.

Emotional engagement:

28. At school we are taught how what we do affects others.
29. At school we learn to think about how others might feel when they are hurt by words or actions.
30. When conflicts happen students are taught that they should care about how others feel.
31. Students learn how their actions affect everyone in the school when rules are broken.

Fairness:

32. Teachers make all students feel included and respected.
33. Rules in this school are fair to everyone.
34. The same rules apply to all students in the class.
35. Teachers treat all students fairly.
36. Some students are treated better / worse than others.

Boundaries:

37. Students are expected to be respectful to other students and adults in this school.
38. Teachers do not allow bad behaviour in the classroom.
39. Students know how they are supposed to act at school.
40. Disrespect and violence are not acceptable in this school.

Appendix B: Discipline Measure as in the Actual Survey

Mark the answer that shows how often each of these things happen at your school when students misbehave and when they behave well at school. Choose the answer that tells what you think happens. There are no right or wrong answers.

What happens when students misbehave at school?	Never	Some times	Often	Always
1. At school we are taught how what we do affects others.	①	②	③	④
2. Students know how they are supposed to act at school.	①	②	③	④
3. The same rules apply to all students in the class.	①	②	③	④
4. Teachers openly praise students who behave <i>well</i> to set an example for other students.	①	②	③	④
5. If students misbehave, they lose privileges (for example, losing points, recess or computer time).	①	②	③	④
6. Students in this school get away with bad behaviour.	①	②	③	④
7. When students do something wrong, they have a chance to make it right.	①	②	③	④
8. Students are expected to be respectful to other students and adults in this school.	①	②	③	④
9. If a student misbehaves, they are singled-out in front of the class (for example, standing in corner, desk separated from others).	①	②	③	④
10. When conflicts happen students are taught that they should care about how others feel.	①	②	③	④
11. Teachers do not allow bad behaviour in the classroom.	①	②	③	④
12. If a student breaks the rules, they get detentions (have to stay after school).	①	②	③	④
13. If a student misbehaves, they get sent out of the class.	①	②	③	④
14. If there is a problem or conflict in school, we learn how to avoid it in the future.	①	②	③	④

15. Teachers just ignore it when students are mean to each other.	①	②	③	④
16. When students are caught doing something wrong, they get a chance to explain it.	①	②	③	④
17. Students who misbehave get extra work to do.	①	②	③	④
18. Students are sent to the office for talking back to the teacher.	①	②	③	④
19. Students who behave <i>well</i> get extra privileges (for example, special roles, extra recess or computer time).	①	②	③	④
20. Students are taught to be responsible for their actions.	①	②	③	④
21. Students get away with threatening and bullying others in this school.	①	②	③	④
22. Disrespect and violence are NOT acceptable in this school.	①	②	③	④
23. When bad things happen, teachers ask students to share their ideas about what happened and how to make things better.	①	②	③	④
24. If a student hurts another student in this school, they have to do something to make up for the trouble they cause.	①	②	③	④
25. Students here are taught how to solve conflicts with others peacefully.	①	②	③	④
26. Some students are treated better / worse than others.	①	②	③	④
27. Adults at this school yell at students who misbehave.	①	②	③	④
28. Students who behave <i>well</i> get rewards or tokens.	①	②	③	④
29. When students cause trouble, adults at school teach them how to do things better.	①	②	③	④
30. Students who break the rules repeatedly get suspended or expelled from school.	①	②	③	④
31. Teachers treat all students fairly.	①	②	③	④

32. At school we learn to think about how others might feel when they are hurt by words or actions.	①	②	③	④
33. Students learn how their actions affect everyone in the school when rules are broken.	①	②	③	④
34. When two students have a conflict, the teachers help them talk it out.	①	②	③	④
35. Students get away with talking back to a teacher.	①	②	③	④
36. When student breaks rules, they have to find a way to fix it.	①	②	③	④
37. Teachers help students figure out why conflicts happen between students.	①	②	③	④
38. Students get a chance to tell how they feel when bad things happen.	①	②	③	④
39. Teachers make all students feel included and respected.	①	②	③	④
40. Rules in this school are fair to everyone.	①	②	③	④

Appendix C: Connectedness Measure as in the Actual Survey

Think about your school this year and decide how much you agree or disagree with each sentence in the boxes below. Choose the answer that best tells us what it is like at school for you. There are no right or wrong answers.

- REALLY DISAGREE:**
- disagree:*
- agree:*
- REALLY AGREE:**
1. means that you “really disagree” with the sentence; it’s not true at all
 2. means that you “disagree” with the sentence; it’s hardly ever true
 3. means that you “agree” with the sentence; it’s true a lot of the time
 4. means that you “really agree” with the sentence; it’s always true

How connected do you feel at school?	REALLY DISAGREE	disagree	agree	REALLY AGREE
1. I enjoy being at this school.	①	②	③	④
2. I have many friends at this school.	①	②	③	④
3. I feel I can rely on teachers in this school.	①	②	③	④
4. There is at least one adult at this school that I can go to if I have a problem or need to talk.	①	②	③	④
5. I feel connected to other students at this school.	①	②	③	④
6. Sometimes I feel I don’t belong here.	①	②	③	④
7. Teachers are not interested in people like me.	①	②	③	④
8. I feel very different from most other students here.	①	②	③	④
9. I feel left out from others in this class.	①	②	③	④
10. There is at least one adult in school who cares about me.	①	②	③	④
11. It is hard for people like me to be accepted here.	①	②	③	④
12. I wish I were in a different school.	①	②	③	④
13. Adults in this school make me feel like I matter.	①	②	③	④
14. I am included in lots of activities at this school.	①	②	③	④
15. I feel proud of belonging to this school.	①	②	③	④

Appendix D: Bullying and Victimization Measures as in the Actual Survey

The next few questions ask about bullying at your school. There are lots of different ways to bully someone. A bully might tease or make fun of other students, spread rumours about them, punch or hit them, or use the internet or texting to do this. Bullying is not an accident – a bully wants to hurt the other person, and does so repeatedly and unfairly (bullies have some advantage over the person they hurt). Sometimes a group of students will bully another student. (**Think about this school year when you answer the following questions about bullying.**)

How often have you been...	Never	Once or a few times	Every month	Every week	Several times a week
9. <u>physically</u> bullied, when someone: - hit, kicked, punched, pushed you. - physically hurt you. - damaged or stole your property.	①	②	③	④	⑤
10. <u>verbally</u> bullied, when someone: - said mean things to you. - teased you or called you names. - threatened you or tried to hurt your feelings.	①	②	③	④	⑤
11. <u>socially</u> bullied, when someone: - said bad things behind your back. - gossiped or spread rumours about you. - got other students not to like you. - ignored you or refused to play with you.	①	②	③	④	⑤
12. <u>cyber</u> -bullied, when someone: - used the computer, websites, emails, text messages or pictures online to threaten you, hurt you, make you look bad, or spread rumours about you.	①	②	③	④	⑤

How often have <i>you</i> taken part in...	Never	Once or a few times	Every month	Every week	Several times a week
13. physically bullying others?	①	②	③	④	⑤
14. verbally bullying others?	①	②	③	④	⑤
15. socially bullying others?	①	②	③	④	⑤
16. cyber bullying others?	①	②	③	④	⑤