

Bullying and Peer Victimization of Ethnic Majority and Minority Youth: Meta-Analyses and
School Context

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Abstract

The study of ethnicity in bullying research has yielded inconsistent findings regarding the involvement and prevalence rates among ethnic majority and minority groups. On one hand, individual studies using ethnic group membership as a demographic variable indicate that ethnic minority groups are at times more or less likely to experience or perpetrate bullying compared to White students. On the other hand, contextual factors such as ethnic diversity have yielded more consistent findings showing that increased ethnic diversity is associated with lower bullying victimization among ethnic minority students.

The role of ethnicity in bullying and peer victimization was examined in this dissertation by investigating both individual and contextual variables. Studies 1 and 2 consisted of two meta-analyses that systematically addressed comparisons between ethnic majority (i.e., White) and minority students (i.e., Black, Asian, Hispanic) on bullying perpetration and peer victimization. Results indicated small and non-significant overall effect sizes; however, methodological moderators suggested that ethnic groups differ on bullying and peer victimization across countries, measurements, and age groups. Study 3 examined school ethnic composition and bullying involvement in a population-based, ethnically diverse Canadian sample. Results indicated that ethnic minority students experienced less bullying victimization in schools with a higher proportion of ethnic minority peers. School ethnic composition was not associated with bullying victimization for White students or bullying perpetration across both ethnic groups.

Taken together, these studies suggest that ethnicity as a demographic variable is not sufficient to account for differences in bullying involvement and that contextual variables

are more adequate at explaining patterns of bullying across ethnic groups within the larger school and societal contexts.

Declaration of Academic Achievement

Irene Vitoroulis, the author of the manuscript, "Meta-Analytic Results of Ethnic Group Differences in Peer Victimization" is the primary author of this article. As the primary author, contributions include: theoretical and methodological formulations for the research, including the research proposal, literature review, data collection, analyzing data, manuscript preparation and manuscript revision. The data used for this manuscript came from literature reviews as per meta-analytic procedures. The second author and thesis supervisor, Dr. Tracy Vaillancourt, offered input and expertise during each phase of the research formulation and manuscript preparation. As per guidelines for training and publication, Dr. Vaillancourt offered feedback and approval of the final and revised manuscripts for submission. This manuscript has been published in *Aggressive Behavior*.

Irene Vitoroulis is the primary author of the manuscript "Ethnic Group Differences in Bullying Perpetration: A Meta-Analysis". Irene Vitoroulis conceptualized the manuscript from the theoretical and methodological formulations, the research proposal, conducted the literature review, collected and analyzed the data, and prepared the manuscript for submission. The data used for this manuscript came from literature reviews as per meta-analytic procedures. The second author and thesis supervisor, Dr. Vaillancourt, offered input and expertise during each phase of the research formulation and manuscript preparation. The manuscript is being currently prepared for publication submission under the supervision of Dr. Vaillancourt.

Finally, Irene Vitoroulis is the primary author of the manuscript "School Ethnic Composition and Bullying in Canadian Schools". Data for this paper come from Dr. Tracy Vaillancourt's Safe Schools Survey research. Irene Vitoroulis conceptualized the manuscript

from the theoretical formulations, conducted the research proposal, literature review, analyzed the data with Heather Brittain, and prepared the manuscript for submission. The second author, Heather Brittain, assisted with the statistical analyses. Dr. Tracy Vaillancourt is the thesis supervisor who offered the data, her input and expertise during each phase of the research formulation and manuscript preparation. The manuscript has been submitted for publication.

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*To my family,
those who are here and the one that's looking from above*

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Chapter 1 – Introduction

The role of ethnicity in bullying perpetration and peer victimization¹ has received considerable research attention over the last years; however, studies have yielded inconsistent findings regarding differences in bullying involvement between ethnic majority and minority students (e.g., Bradshaw, Sawyer, & O'Brennan, 2009; Nishina, Juvonen & Witkow, 2005). The first aim of the present dissertation was to systematically address differences in bullying perpetration and peer victimization between ethnic majority (i.e., White) and ethnic minority youth (i.e., non-White) by conducting two meta-analyses on research findings between 1990-2011. Ethnic group differences have been examined either with using ethnic group membership as a demographic characteristic at the individual level, in which average rates of bullying and victimization are compared between ethnic groups (e.g., Nansel et al., 2001), or as a contextual variable focusing on school ethnic composition and the numerical representation of ethnic groups in a school as a risk factor for higher perpetration or victimization (e.g., Agirdag, Demanet, Van Houtte, & Van Avermaet, 2011). Considering the importance of school context in inter-ethnic peer relationships and the variability in findings on individual-level ethnicity and bullying, the second aim of the dissertation was to examine the association between school ethnic composition and bullying in a population-based, ethnically diverse Canadian sample by taking into account the numerical proportions of ethnic minority youth in schools.

Bullying and Peer Victimization

Research findings and meta-analyses support the negative effects on students' psychosocial development (e.g., Arseneault, Bowes, & Shakoor, 2010; Gini & Pozzoli, 2013;

¹ Unless otherwise specified, the term bullying refers to both perpetration and victimization.

Kowalski & Limber, 2013), as well as the role of several characteristics associated with higher risk for perpetration and victimization, such as socioeconomic status, age, and mental health symptoms (e.g., Beran & Tutty, 2002; Tippet & Wolke, 2014; Turner, Finkelhor, & Omrod, 2010).

Peer victimization occurs when youth become the targets of intentional aggression by their peers (Perry, Kusel, & Perry, 1988). This aggression can be direct, such as verbal and physical, or indirect, including behaviour such as social exclusion, gossiping, and spreading rumours (e.g., Crick & Grotpeter, 1995; Österman et al., 1994; Rivers & Smith, 1994; Williams & Guerra, 2007; Vaillancourt & Hymel, 2004). More recently, cyber victimization has been included in the forms that peer aggression can take. Cyber peer victimization includes behaviour similar to traditional aggression that is instead, perpetrated over the internet, via text messaging, or other technological devices (David-Ferdon & Hertz, 2007; Dempsey, Sulkowski, Dempsey, & Storch, 2011). On the extreme end of the peer aggression continuum lies bullying. Bullying is defined as a systematic abuse of power characterized by repetition, power imbalance between children who bully and their targets, and intention to cause harm (Olweus, 1994, 1995; Vaillancourt et al., 2003, 2008). These characteristics uniquely constitute aggressive behaviour as bullying that is different from general peer aggression because of the aspects of repetition and power imbalance (Hellström, Beckman, & Hagquist, 2013; Salmivalli & Peets, 2009).

The prevalence of bullying behaviour has been estimated at an overall rate of 11% for frequent incidents and at 35% for moderate-to-occasional incidents (Craig & Harel, 2004). Research on the definition of bullying indicates that students, parents, and teachers hold slightly different conceptualizations of the term, with children having more discordant

conceptualization of bullying than adults (Naylor, Cowie, Cossin, de Bettencourt, & Lemme, 2006; Smorti, Manensini, & Smith, 2003). Smith, Cowie, Olafsson, and Liefhoghe (2002) found that older children were more able to discriminate between aggressive behaviour and bullying compared to younger children, who classified behaviour as either aggressive or non-aggressive. In addition, the meaning of the term ‘bullying’ varied across cultures, with ‘bullying’ being most prevalent in England whereas in other countries social exclusion was more likely to be endorsed compared to physical aggression. Nevertheless, studies employ the definition coined by Olweus (1994) or adaptations developed in more recent years (e.g., Vaillancourt et al., 2010).

Bullying can occur for many reasons, such as to establish power, make fun of the victim, or for instrumental reasons (e.g., Bosacki, Marini, & Dane, 2006; Vaillancourt et al., 2010). Children and youth who bully others tend to be considered powerful, popular, or of high social status and self-esteem (Craig & Pepler, 2007; Graham & Bellmore, 2007; Vaillancourt et al., 2003), whereas victims are often unable to defend themselves against peer abuse, have low self-esteem, and are more likely to be lonely, anxious, depressed and have poorer peer relationships than bullies or non-involved peers (Craig & Pepler, 2007; Egan & Perry, 1998; Graham & Bellmore, 2007; Hodges & Perry, 1999; Olweus, 1995). Some children can be both bullies and victims (bully-victim), depending on the setting and the situation they find themselves in (e.g., Veenstra et al., 2005).

Bullying at school typically takes place in areas of low supervision such as on the playground, in the washroom, and hallways (Vaillancourt et al., 2010). Bullying is common among both boys and girls; however, sex differences have been observed in the forms experienced or perpetrated. In particular, boys are more likely to be involved in bullying

either as perpetrators or victims, and to experience or engage in more physical and direct forms of bullying compared to girls (e.g., Nansel et al., 2001; Wang, Iannotti, & Nansel, 2009). Girls are more likely than boys to experience or engage in verbal and relational bullying, although some findings indicate no differences between boys and girls with respect to relational bullying and victimization (e.g., Scheithauer, Hayer, Patermann, & Jugert, 2006). There are also differences in bullying perpetration and victimization in childhood and adolescence; bullying behaviour is more common in elementary than high school students (e.g., Pepler, Connolly, & Craig, 1999; Vaillancourt et al., 2010a), with a higher peak during school transition periods (e.g., from elementary to secondary school; e.g., Pepler, Jiang, Craig, & Connolly, 2008; Pellegrini & Long, 2002).

Bullying contributes significant problems to children's mental health and psychosocial functioning, both concurrently and longitudinally (e.g., Beeson & Vaillancourt, in press; Burnstein-Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007; Sourander, Helstelä, Helenius, & Piha, 2000). Children involved in bullying are more likely to have internalizing, externalizing and substance abuse problems, and low academic performance (Forero, McLellan, Rissel, & Bauman, 1999; Glew, Fan, Katon, Rivara, & Kenton, 2005; Hawker & Boulton, 2000; Hodges & Perry, 1999; Ivarsson, Broberg, Arvidsson, & Gillberg, 2005; Nansel et al., 2001; Rigby, 1999; Thijs & Verkuyten, 2008; Woods & Wolke, 2004). In addition, bullying affects youth at the biological level as well and consequences on mental health extend into adulthood (e.g., Vaillancourt, Hymel & McDougall, 2013).

Ethnicity as a Construct in Bullying Research

National statistical and government centres classify individuals into ethnic or racial groups such as White, Asian/Asian American, Black/African American, Hispanic/Latino,

and American Indian (Centers for Disease Control and Prevention, 2010; US Census, 2010; Office for National Statistics, 2012; Statistics Canada, 2006, 2011). Non-White individuals are also referred to as ethnic, national, or visible minorities in the host country. Ethnicity and race are often used interchangeably but the terms are defined differently across organizations and contexts. For example, in addition to specific ethnic group categorizations (e.g., Black, South Asian), Statistics Canada uses the terms “ethnic origin” and “visible minorities” to classify individuals based on one’s cultural origin and being non-White in colour (Statistics Canada, 2012a). It is also recommended that the term “race” no longer be used in order to avoid ambiguity in the terminology used in surveys and because people may be of different or more than one race (Statistics Canada, 2012b). In the United States, race refers to racial origin and sociocultural groups, whereas ethnicity is primarily used as a dichotomous variable that can be either Hispanic or non-Hispanic (US Office of Management and Budget, 1997). Originally, ‘race’ was conceptualized to distinguish people based on genetic differences and visible characteristics (e.g., Betancourt & Lopez, 1993) whereas ethnicity is a newer construct that encompasses ethnic identity, culture, and minority status, and refers to identification with a group of people with a shared cultural background (Cockley, 2007; Phinney, 1996). Thus, race tends to be associated specifically with phenotypic features whereas ethnicity is a social construct that refers mostly to cultural practices, language, religion, and other non-biological characteristics (Betancourt & Lopez, 1993; Quintana, 1998). Immigrant status is a more straightforward term that describes geographical mobility and refers to place of birth, for instance, outside of the country of immigration (Statistics Canada, 2009).

In the area of bullying, researchers most often use a self-labelling approach for ethnic identification, and group comparisons are based on forced-choice ethnic labels (e.g., White, Black, Asian), or more scarcely, on immigrant status and language spoken at home. In peer relationships research, participants are asked to indicate their ethnicity or race as part of demographic questionnaires using self-labelling, behavioural (e.g., language spoken at home), or natal (e.g., place of birth, immigrant/non-immigrant) methods. With the exception of studies focusing on ethnic identity, acculturation, and other constructs relevant to adjustment and cultural attachment, most of the aforementioned approaches do not always infer strength of cultural identity and affiliation and they do not assess one's ascribed meaning to ethnicity beyond a descriptive group classification (Quintana, 2007). Nevertheless, Kiang, Perreira, and Fuligni (2011) found that adolescents' selection of ethnicity self-labels differed between cities with high versus low ethnic minority/immigrant populations, which may suggest strength of association with one's group. For example, immigrant adolescents living in Los Angeles, a highly multicultural society with multiple generations of immigrants, were more likely to select hyphenated ethnicity labels (i.e., Hispanic American) compared to adolescents living in North Carolina, who were more likely to select their heritage ethnicity label (i.e., Chinese).

Ethnicity and Bullying Research

Research on bullying and its effects on youth has been conducted primarily with national ethnic majority samples (e.g., European American), with less focus on members of ethnic minority and immigrant groups. In multicultural societies, bullying behaviour often takes place between children of various ethnic and cultural backgrounds and a slight increase in such incidents has been observed (e.g., Craig & McCuaig-Edge, 2008). An

additional form of bullying that has emerged in research with ethnic samples refers to as ‘ethnic or racial bullying’, which focuses on bullying behaviour targeting a person’s ethnicity. Specifically, ethnic bullying has been defined as “bullying that targets another’s ethnic background or cultural identity in any way” (McKenney, Pepler, Craig, & Connolly, 2006, pg. 242). According to McKenzie and colleagues (2006), ethnic bullying involves a wide range of aggressive behaviour, such as verbal (e.g., racial taunts and slurs) and indirect (e.g., exclusion from a peer group because of ethnic differences). In order to consider ethnic peer victimization as a form of bullying, the three characteristics defining bullying must be present as well; repetition, power imbalance, and intent to cause harm.

While some findings from Europe and North America indicate that members of ethnic minority groups are more likely to be victims of general and/or ethnic forms of bullying than their national ethnic majority counterparts (e.g., Boulton, 1995; Nishina et al., 2005; Strohmeier & Spiel, 2003; Verkuyten & Thijs, 2002), other research finds that ethnic minority youth are more likely to be bullies rather than victims (e.g., Fandrem, Strohmeier, & Roland, 2009; Juvonen, Graham, & Schuster, 2003). The incidence of ethnic and non-ethnic school bullying and peer victimization among ethnic minority and immigrant youth has been less documented in the literature compared to general forms of bullying with national ethnic majority samples. In the United States, where researchers have focused mainly on general forms of bullying, findings indicate that 6.7-24.5% of Black and Hispanic youth experience victimization compared to 8.7-26.2% of White youth, and 8.3-24.4% of Black and Hispanic students engage in bullying behaviour compared to 8.5-26.2% of White students ($n = 15686$; Nansel et al., 2001). In Canada, Larochette, Murphy, and Craig (2010) asked participants how often they had been bullied or bullied others because of

their race or colour, in addition to frequency of general forms of bullying. The researchers found that 3.5% of their sample ($n = 3684$) were perpetrators and 4.4% were victims of ethnic bullying; however, the incidence of general forms of bullying was significantly higher across the entire sample (42.5% and 38% respectively). In Europe, where ethnic bullying has been examined in more depth, ethnic victimization ranges from 3.3-6.8% for ethnic majority and 6.8-37.5% for ethnic minority youth in Spain and England (Monks, Ortega-Ruiz, & Rodriguez-Hidalgo, 2008), and in the Netherlands, racist name-calling and exclusion at school have been estimated at 3-48% for ethnic majority and 9-59% for ethnic minority youth (Verkuyten & Thijs, 2002).

Among the first studies to examine bullying including ethnic minority and immigrant groups were those conducted in the U.K in the early 1990s. In a sample of 6758 ethnic minority and majority students, Whitney and Smith (1993) found that 9% of secondary and 15% of junior/middle school students had been called names about their colour or race, although these incidents were less frequent than general forms of bullying. However, the researchers did not specify the proportion of ethnic minority youth who experienced each type of peer victimization. Mooney, Creaser, and Blatchford (1991) studied White and Black 7- and 11-year-old students using structured interviews and open-ended questions regarding the ways in which children had been teased. Over half of the participants (65% of 7-year-olds and 58% of 11-year-olds) reported that racial teasing occurred at their school either to them or to other students. A higher proportion of Black students were teased about their clothes and accessories compared to White students, whereas the latter admitted to engaging in this behaviour. Boulton (1995), using peer nominations, found that more South Asian children were nominated as victims compared to students of European origin, and more

South Asian children reported being teased about their colour or race by other-race perpetrators. Lastly, Siann, Callaghan, Glissov, Lockhart, and Rawson (1994) found that ethnic minority students in Scotland and England perceived more peer victimization toward ethnic minorities compared to ethnic majority students although no differences in bullying were observed between ethnic groups.

Researchers, however, especially in the United States, have focused more on general forms rather than on ethnic bullying specifically, with findings yielding mixed results. Nishina et al. (2005) found that European American students experienced the least victimization compared to Asian, African American, and Mexican/Central American students, and Barbosa et al. (2009) reported that African American and Asian adolescents were less likely to engage in bullying behaviour compared to European American adolescents. In contrast, Fleschler-Peskin, Tortolero, and Markham (2006) found that African American students were consistently more involved in bullying and victimization compared to Hispanic students, but Bradshaw et al. (2009) reported being African American and Hispanic was associated with a reduced risk for victimization among elementary school students. Among middle school students, African Americans were less likely to report victimization than non-African Americans, and European Americans were less likely than non-European Americans to report frequently bullying others (Bradshaw et al., 2009). Similarly, Spriggs, Iannotti, Nansel, and Haynie (2007) found that Black adolescents reported less victimization than White and Hispanic participants.

There are also findings that indicate no differences in bullying involvement among ethnic groups. For instance, Seals and Young (2003) reported no differences in the prevalence of bullying between African American and European American students. In an

observational study, Craig, Pepler, and Atlas (2000) found that two-thirds of the bullying episodes in the playground occurred among Canadian children of different ethnicities, but no significant differences were observed in the proportion of episodes involving bullies and victims of the same and of different ethnicities. Furthermore, studies looking at the role of parent, teacher, and friend social support in bullying, as well as the effects of peer victimization on adolescents' mental health, indicate no significant main effects for ethnicity on bullying involvement (Abada, Hou, & Ram, 2008; Demaray & Malecki, 2003). Nevertheless, immigrant adolescents appear to experience more depression when harassed at school compared to their non-immigrant peers (Abada et al., 2008) and to hold less positive attitudes about bullying. Specifically, ethnic minority students place greater value on possessing the qualities of the 'bullies' in order to avoid the negative consequences, such as being victimized, whereas ethnic majority students are more likely to engage in bullying because others are doing it (Nguy & Hunt, 2004).

School Ethnic Composition

The aforementioned studies have yielded mixed results about the association between ethnicity and bullying; although some researchers find that ethnic minority youth are more (or less) involved in bullying, others find no differences between ethnic groups. These differences may be because of contextual factors beyond ethnicity alone. Specifically, researchers have examined contextual factors that potentially play a significant role in determining risk for victimization among ethnic minority groups, such as the ethnic composition of schools and classrooms (Agirdag et al., 2011; Hanish & Guerra, 2000). Power asymmetry is key to the definition of bullying, thus, any imbalance – in the numerical sense – between ethnic groups in a school setting may set the norms for peer victimization.

In contrast, when multiple ethnic groups are equally represented and power is distributed among them, then no one group is (theoretically) at higher risk for being victimized.

Graham (2006) examined the role of ethnic diversity in bullying and students' feelings of vulnerability at school, hypothesizing that greater diversity would be associated with lower risk for victimization. Indeed, results indicated that increased ethnic diversity with no one group holding the numerical majority was associated with lower self-reported peer victimization and loneliness, and higher self-worth and perceived school safety. Similarly, Barth et al. (2013) found that a balanced distribution of ethnic diversity in schools may promote positive interracial peer relationships. The pattern observed in Graham's study held true not only for a national ethnic majority (e.g., European Americans) versus national ethnic minorities, but also when a national ethnic minority group was the numerical majority in a context, and thus, potentially possessed more power than a national ethnic majority. Graham and Juvonen (2002) found that the numerical majority groups in their sample (Hispanic and African American) received more peer nominations as aggressors than as victims, whereas the numerical minority groups (e.g., White) received more nominations as victims. Hanish and Guerra (2000) found that, although African American and White students did not differ in their victimization experiences, White children attending schools non-White-populated schools were at greater risk of being bullied than White students attending predominantly White-populated schools. In a multi-informant study, African American children were perceived by peers as engaging in more aggressive behaviour than European American children, and African American girls were perceived by teachers as more aggressive and victimized than their European American peers (Putallaz et al., 2007).

Juvonen, Nishina, and Graham (2006) studied 2000 students in the U.S. taking into account the ethnic diversity of the school and classrooms, perceived school safety and peer victimization. They found that greater ethnic diversity in the school and classroom was associated with less perceived peer victimization and predicted school safety. Jackson, Barth, Powell, and Lochman (2006) found that Black children were less favourably rated than White children, but Black children's rating improved as the percentage of Black students in the classroom increased. For White children, however, the results showed a different pattern; they were rated favourably regardless of classroom ethnic composition. Similar findings have also been reported in Europe; Verkuyten and Thijs (2002), in a sample of 2851 children from 82 primary schools in the Netherlands, concluded that ethnic victimization depends on individual as well as contextual factors. Specifically, a higher proportion of same-ethnicity peers was associated with less ethnic victimization for national ethnic majority students but a higher proportion of national ethnic majority students in the classroom was associated with more ethnic victimization for ethnic minority children. More recently, Thijs and Verkuyten (2014) suggested that the risk of peer victimization increased in classrooms with fewer same-ethnicity peers, but only when the aggressors held negative views toward the victims' ethnic group, while Tolsma, van Deurzen, Stark, and Veenstra (2013) found that higher intra- and inter-ethnic bullying in schools is associated with increased ethnic diversity as well.

Theoretical Assumptions for Inter-Ethnic Bullying and Peer Victimization

Children's peer groups are formed based on similarities and shared characteristics, often stemming from socially salient categories such as age, race/ethnicity, and sex (Bagwell & Schmidt, 2011). Such categories may also become the basis for prejudice and stereotype

against other groups, particularly when there is a proportional numerical imbalance and unequal status between groups (Bigler & Liben, 2007). Intergroup contact between in-group and out-group members is often dependent on opportunity for contact and the extent to which threat is perceived toward the in-group. According to Social Identity Theory (Tajfel, 1970) and Social Identity Developmental Theory (see Levy & Killen, 2008), children need to develop a positive social identity and to maintain a sense of belongingness with a high status in-group. Consequently, children are prone to positive in-group bias, in order to maintain high group self-esteem, and negative attitudes toward out-groups (Aboud, 2003). Experimental studies support that when children are assigned to high versus low status groups on tasks such as drawing ability, they display in-group favouritism irrespective of age or sex, they tend to like their group more and to identify themselves with in-group members particularly when the group holds a high status (e.g., Bigler, Jones, & Lobliner, 1997; Nesdale & Flessner, 2001). In contrast, when intergroup comparisons are put forward, children are more likely to like less, and discriminate against, out-group members (Nesdale, Durkin, Maass, & Griffiths, 2004).

One of the most salient characteristics for self-categorization and group membership is race or ethnicity. In multicultural societies, children are exposed to members of other ethnic groups from an early age and, thus, the tendency to belong to a specific group and favour the in-group, but not the out-group, is more pronounced during childhood and adolescence. Children's inter-ethnic group attitudes are associated with the level of collective self-esteem and ethnic identification, parental attitudes, multicultural education and the opportunity for cross-ethnic contact (e.g., Verkuyten, 2003, 2007; Spears-Brown, Spatzier, & Tobin, 2010). Research on racial attitudes and peer exclusion shows that ethnic

majority and minority children evaluate social exclusion based on race as morally wrong (Killen, Henning, Kelly, Crystal, & Ruck, 2007), and when cross-ethnic friendships occur, racial bias and prejudice diminish (Aboud, Mendelson, & Purdy, 2003). Nevertheless, cross-ethnic friendships are less intimate and stable than same-ethnicity ones, and children tend to select same-ethnicity friends as partners or assign positive nominations to same-ethnicity peers (Aboud et al., 2003; Barth et al., 2013; Boulton & Smith, 1992, 1996; Chan & Birman, 2009; Graham, Taylor, & Ho, 2009; Schneider, Dixon, & Udvari, 2007; Smith & Schneider, 2000). Ethnic majority children are more likely to have positive attitudes toward their in-group than ethnic out-groups, but ethnic minority children tend to have positive attitudes toward both ethnic in-group and out-group members (Griffiths & Nesdale, 2006), and are likely to display negative out-group bias toward ethnic majorities particularly in ambiguous situations (Margie, Kilen, Sinno, & McGlothlin, 2005). In addition, ethnic minority children are more likely to perceive social exclusion to be related to race and cultural background, indicating minorities' sensitivity to racial status (Killen et al., 2007). Similar findings have been reported in Europe (e.g., Verkuyten, 2007), where both native Dutch and Turkish early adolescents evaluated their in-group more positively than the out-group, but Dutch participants showed higher in-group favouritism than did the Turkish participants.

Although inter-ethnic intergroup relationships are not necessarily negative, social identity theories posit that in the presence of a perceived threat to the in-group, children will display prejudice and negative attitudes toward an ethnic out-group (e.g., Tajfel, 1978; Tajfel & Turner, 1979). Children younger than 4 years of age do not seem to display signs of prejudice, but as they grow older it is more likely that they will identify with a social group and be exposed to social threat and prejudiced attitudes toward other ethnicities

(McGlothlin, Edmonds, & Killen, 2007). Ethnicity can become the target of individual peer aggression in addition to being a characteristic that defines a group at large (e.g., targeting someone because of personal characteristics, such as being overweight, short, wearing glasses, etc.). In the case of peer victimization and bullying, peer-directed aggressive behaviour that occurs because of one's ethnicity and cultural background may also be associated with racism and discrimination. Racism was originally termed to distinguish and stratify people of different colour or of phenotypical biological make-up into superior and inferior classes of humans (Browser, 1995; Fluehr-Lobban, 2006; Richards, 1997). Racism can be either overt, where explicit violent or discriminatory incidents occur against minority individuals, or covert where discriminatory actions may be subtle or indirect (Quintana & McKown, 2007). A common antecedent of racism is prejudice, referring to judgments about a person without any substantial or justifiable basis (Fluehr-Lobban, 2006). According to Allport (1988), prejudice consists of an unfavourable evaluation of a person based on an unjustified underlying predisposition and judgment about one's ethnic background. However, prejudice is not only about one individual's unique, personal characteristics, but rather, it is a generalized judgment about all members of a particular group. Bigler and Liben (2007) suggest that minority groups are more likely to become targets of prejudice especially if they are proportionally smaller than other groups. Thus, in-group/out-group negative relationships may be exacerbated in contexts where there is an imbalance in the numerical proportions of ethnic groups, and even though ethnic diversity, where no one group holds the numerical majority, is associated with positive outcomes in children (Graham, 2006), a greater imbalance appears to be associated with more bullying and aggressive behaviour. When group members identify strongly with their in-group and hold

positive norms about aggression as a means to enhance in-group status or when in-group is threatened, then children will discriminate against other groups and engage in aggressive behaviour (Gini, 2006; Nesdale & Scarlett, 2004). Research on intergroup bullying indicates that children are likely to accept and engage in bullying behaviour against out-group members, either as active participants or bystanders, when their in-group holds positive norms of bullying and when a threat is perceived by an out-group (Duffy & Nesdale, 2009; Ojala & Nesdale, 2004).

Social identity theories and the numerical proportion hypothesis provide a theoretical basis about inter-ethnic intergroup bullying. Central to the definition of bullying is a power imbalance between the parties involved (Vaillancourt et al., 2008) and as previously mentioned, tension between groups occurs when there is an imbalance in the numerical proportions of groups or when a differential status exists (Graham, 2006; Sidanius & Pratto, 1999). Graham (2006) proposed that when there is an imbalance in the numerical representation of ethnic groups in a school setting, children belonging to the under-represented group will be more likely to experience peer victimization, whereas members of the numerical majority group will be more likely to engage in aggressive behaviour. Research overall supports the numerical imbalance hypothesis and several studies indicate that ethnic majority groups –in the numerical sense– are nominated by peers as aggressive whereas ethnically numerical minorities are nominated as victims (Graham & Juvonen, 2002; Hanish & Guerra, 2000; Hoglund & Hosan, 2012; Putallaz et al., 2007). Nevertheless, there is evidence suggesting that ethnic diversity is not a protective factor against bullying (Stefanek, Strohmeier, van de Schoot, & Spiel, 2011), self-reported peer victimization is not related to students' ethnic majority or minority status (Mehari & Farrell, 2013), and inter-

and intra- ethnic bullying are equally common (Tolsma et al., 2013). Further examination of racial attitudes and prejudice appear to be important moderators in the extent to which inter-ethnic bullying occurs. For example, Thijs, Verkuyten, and Grundel (2014) took into account the imbalance of power within schools as well as ethnic in-group bias and prejudice as a moderator between the relationship of peer victimization and classroom ethnic composition. Their results indicated that a higher presence of out-group classmates was associated with more peer victimization, but this association was moderated by out-group members' negative attitudes toward the victims' ethnic group and attributions of peer victimization to racial discrimination. Thus, the association between the numerical imbalances of ethnic groups is not only dependent on simple demographics, but prejudice, racial attitudes, and bias as well.

Methodologies Used in Bullying Research

The prevalence of bullying is mostly assessed through self- and peer-assessments, with some studies also employing teacher- and parent-reports. Self-report measures are based on questionnaires or single items assessing aggressive behaviour, but peer-reports are based on sociometric methods such as peer nominations (Solberg & Olweus, 2003). Self-reports are easy to administer in a short amount of time and allow for students' personal experiences (Ladd & Kochenderfer-Ladd, 2002), which may often be dismissed by other methods of assessment especially for covert aggressive behaviour. However, they are subject to self-perceptions and biases, which may result in under- or over-reported incidents (e.g., Branson & Cornell, 2009; Card & Hodges, 2008). In peer nominations, students are asked to nominate their classmates into each of the bully or victim categories (Solberg & Olweus, 2003), and this method offers an alternative and objective estimate for the

identification of children who are targets of peer victimization (Branson & Cornell, 2009; Cornell & Brockenbrough, 2004). However, peer nominations are also subject to reputation and methodological limitations, such as scoring and selecting cut-off points, and they are limited within the number of students in a classroom (Card & Hodges, 2008; Cornell & Bandyopadhyay, 2010; Soldberg & Olweus, 2003). Parents or teachers may provide additional information from a multi-informant perspective; however, adults may underestimate the prevalence of peer victimization as it is less likely that children engage in aggressive behaviour in their presence or to report peer victimization/bullying to adults (Buhs, Ladd, & Herald, 2006; Fekkes, Pijpers, & Verloove-Vanhorick, 2005; Holt, Kaufman-Kantor, & Finkelhor, 2008; Mishna & Alaggia, 2005; Troop-Gordon & Kopp, 2011; Vaillancourt et al., 2010).

Self-, peer-, and teacher-reports have been used in research with ethnic minority or immigrant youth as well. For example, some peer-report findings indicate that national ethnic majority children (i.e., White, native Austrian) were most likely and ethnic minority children least likely to be classified as victims (Juvonen et al., 2003; Strohmeier, Spiel, & Gradinger, 2008). Charach, Pepler, and Ziegler (1995) found that ethnic bullying was reported by 43% of the students and 36% of teachers. Other peer-report findings indicate that students tend to over-nominate African Americans as aggressive compared to Latino and European American peers (Graham, Bellmore, & Mize, 2006). Black students are also most likely and Asian least likely to be classified by peers as bullies; White children are most and Latinos least likely to be classified as victims; and Black youth are also most likely to be bully-victims (Juvonen et al., 2003). In Austria, researchers suggest that children tend

to nominate their native Austrian peers as victims more often than their ethnic minority peers; a finding that was also supported by self-reports (Strohmeier et al., 2008).

Peer victimization research stems from aggression, harassment, and bullying literatures, all of which share, to a large extent, similar questionnaires and response scales (e.g., dichotomous, forced-choice frequency options). For example, in peer aggression, where children are “recipients of aggressive behaviour” or “aggrieved upon”, researchers use measures on direct (e.g., physical) and indirect (e.g., relational) actions, without necessarily involving repetition or power imbalance (e.g., Social Experiences Questionnaire by Crick & Grotpeter, 1996; Direct and Indirect Aggression Scales by Björkqvist, Lagerspetz, & Österman, 1992). Likewise, being bullied is assessed with measures involving the same behaviour (e.g., Revised Olweus Bully/Victim Questionnaire by Olweus, 1996; Safe Schools Survey by Vaillancourt and colleagues, 2010), with the addition of repetition and power imbalance in the definition of bullying. Further, measures that consist of one-to-four items assessing general or specific types of peer victimization are used (e.g., Fandrem, Ertesvag, Strohmeier, & Roland, 2010; Verkuyten & Thijs, 2002); however, reliability of single items may contribute to further methodological limitations.

The variability in measurement across studies may under- or over-estimate the prevalence of peer victimization; definition-based measures have been shown to underestimate the prevalence of bullying compared to behaviour-based measures (e.g., Sawyer, Bradshaw, & O’Brennan, 2008), whereas general questions have been shown to be better at classifying non-involved students (Vaillancourt et al., 2010). Definition-based measures consist of a bullying definition followed by global questions on bullying and victimization whereas behaviour-based measures consist of multiple items addressing

different types of aggression, such as hitting, spreading rumours etc. (Felix, Sharkey, Greif-Green, Furlong, & Tanigawa, 2011). The issues regarding the definition and differentiation of bullying and peer aggression have been the topic of discussion among researchers. The definition of bullying includes three main characteristics: intention to cause harm, repetition over time, and a power imbalance between the children involved (Olweus, 1994, 1995; Vaillancourt et al., 2003, 2008). Although these characteristics uniquely define aggressive behaviour as bullying (Salmivalli & Peets, 2009), there is a growing concern regarding the discrepancy between youths', adults', and researchers' definitions. Children are less likely to incorporate intentionality, power imbalance, and repetition in their conceptualization of bullying (Vaillancourt et al., 2008) especially in younger ages, whereas parents or teachers are more likely to include these characteristics (Naylor et al., 2006; Smorti et al., 2003). Instead, children tend to refer to negative behaviour as bullying (Vaillancourt et al., 2008) and to be more accurate on behavioural rather than definition-based measurements (Sawyer et al., 2008). Nevertheless, the vast majority of studies conducted on bullying victimization are based on the description or adaptations of Olweus' (1994) definition.

Furthermore, most of the measures assessing peer victimization are rated either on a dichotomous 'yes/no' scale, or on multiple response options on the frequency of victimization currently or over the past "week/month/semester/year". Consequently, prevalence estimates may vary significantly across response scales, as students' interpretation of items is subjective, the severity of incidents may vary across scales, and the time frames provided may not always be comparable. Lastly, there is inevitably an overlap between aggression and bullying measures and the differentiation between being aggressed upon and being bullied repeatedly becomes ambiguous in studies with a lack of clear

definition of constructs. Therefore, although each assessment method provides unique information depending on specific research goals, the different approaches may result in a discrepancy in findings because of incongruent measurements.

Overview of Current Studies

The present dissertation consists of two meta-analyses on (a) ethnicity and peer victimization and (b) ethnicity and bullying perpetration, and a questionnaire-based study on the association between school ethnic composition and bullying perpetration and peer victimization among ethnic majority and minority Canadian youth. The goal of the meta-analyses was to examine whether ethnic groups differ in their reports of bullying perpetration and peer victimization based on ethnicity as a demographic variable. In the third study, the goal was to assess the influence of context (i.e., ethnic school composition) on students' reports of bullying and victimization as a function of the numerical representation of ethnic groups.

Studies 1 and 2: Meta-Analyses

The objectives of the meta-analyses were to investigate the association between ethnicity as a demographic variable and (a) bullying and (b) peer victimization among ethnic majority and minority youth. In particular, the goal was to assess whether ethnic minority youth were more (or less) likely to be victimized by peers or bully others at school compared to ethnic majority peers. Eligible studies were obtained based on findings spanning twenty-one years of research (1990 – 2011). This date range was selected in order to include a wide sample of studies, as well as to accommodate the first studies on ethnicity and bullying published in the early 1990s (e.g., Moran, Whitney, & Smith, 1993). The focus of the first meta-analysis was on peer victimization experienced by bullying and non-

bullying aggressive behaviour, while the second meta-analysis was conducted on bullying perpetration only.

Literature searches and selection of studies. The selection of studies was based on methodologies including both ethnic majority and minority samples and outcomes on peer victimization (i.e., aggression, harassment) and bullying. All studies were obtained through (1) computer-generated searches using multiple databases to retrieve peer-reviewed and unpublished findings (PsycInfo, ERIC, ProQuest Dissertations and Theses, Pubmed, Google Scholar); (2) manual searches of major journals in the field of peer relationships; (3) unpublished sources (e.g., conference presentations, master's theses and doctoral dissertations); (4) backward searches (articles in which the included studies were cited); (5) forward searches (articles cited in the included studies); and (6) personal communications with authors in the field. The following terms were used separately and in combination in order to obtain the maximum number of studies: “bull*, peer victim*, peer harass*, relational/indirect/physical verbal/ victim*, ethnic*, rac*, ethnic majority, ethnic minority, immigrant”. The term “aggress*” was not included in the final keywords as initial searches yielded more than 50,000 results and the main interest was specifically on peer victimization and bullying perpetration.

Because ethnic differences in peer victimization have been examined either directly or indirectly, studies with a primary focus on ethnicity as well as studies with descriptive ethnic group differences were included. Originally, the literature searches yielded more than 20,000 results, which were narrowed down by limiting the age groups to 6-18 year-olds, research in English, and excluding general violence and special populations (described below). The final pool of studies consisted of 10,000 titles (including duplicates) in the form

of peer-reviewed articles, dissertations, reports, and chapters, which were obtained and examined for inclusion. Studies were reviewed for ethnic group differences in peer victimization and bullying by looking at the abstract, method and results sections. If ethnicity was not mentioned in the abstract, the rest of the sections were examined for secondary references to ethnicity. Studies in which multiple ethnic groups were included but no results on ethnic differences were reported whatsoever were excluded from the meta-analyses. Because ethnicity in the peer victimization literature is almost always assessed as part of demographics, only authors who reported partial results were contacted to provide us with further statistical information.

Inclusion and exclusion criteria. The following information was examined in each study to determine inclusion:

1. Bullying and peer victimization:
 - a. Studies employing measures of bullying and peer victimization at school.
 - b. Definition-based measures in which a definition of bullying is provided followed by a yes/no or a frequency response system or a questionnaire.
 - c. Bullying measures in which the term “bully” is present in the measure, with or without the use of a formal bullying definition.
 - d. Behaviour-based measures using a list of bullying/peer victimization examples.
 - e. Single items assessing bullying and peer victimization.
 - f. Studies on ethnic bullying and peer victimization, which were assessed as an additional form of bullying.

- g. Studies on neighbourhood bullying and violence (e.g., sexual, date, domestic) were excluded from the meta-analysis.

2. Methodologies

- a. All studies included both a national ethnic majority group (e.g., White, European Canadian, European American) and at least one national ethnic minority group (e.g., African American, Asian American) based on ethnic self-identification, immigrant status, and language classification. Studies with only national ethnic majority or national ethnic minority samples were excluded from the analyses. Studies with gifted, maltreated and foster care children/adolescents were excluded from the analyses, as well as studies with clinical samples and youth of refugee status.
- b. The meta-analyses included cross-sectional as well as longitudinal studies; for the latter, an average effect size across time points was calculated to provide a single estimate.

3. Statistics

- a. All studies were inspected for adequate statistics necessary to calculate effect sizes. In the case of missing statistical information, authors were contacted for further information.

4. Moderators

- a. Self-, peer-, teacher-reported bullying and peer victimization were included in order to examine whether bullying prevalence among groups differs across reporters.
- b. Bullying and peer victimization measurement

- i. Presence of absence of a bullying definition
 - ii. Single-item questions
 - iii. Peer victimization/bullying questionnaires
 - c. Publication type (peer-reviewed, unpublished)
 - d. Year of study publication.
 - e. Age of participants was classified into three categories: childhood (up to 10 years old or grade 5), adolescence (11-18 years old or grades 6-12), and crossing ranges for studies that reported results across the 6-18-year span.
5. Country of study origin (i.e., US, Canada, UK, etc.)

Coding of studies. Study characteristics were coded based on the following categories:

- (i) Study descriptives: Year, Country (Canada, US, UK, Other European, Other), publication type (published, unpublished).
- (ii) Sample descriptives: Total sample size per ethnic majority and minority (e.g., Black, Hispanic, Asian, Aboriginal, etc.) groups, age (childhood, adolescence, crossing ranges) or school grade, and sex.
- (iii) Methodological characteristics: measure (questionnaires consisting of 5 items or more, one-to-four items, peer nominations, Olweus's Bully/Victim Questionnaire, reporter (self-, parent-, peer-, teacher-, multiple), bullying and peer victimization subtypes (i.e., relational, ethnic, physical, direct, indirect), bullying definition (presence, absence).
- (iv) Statistical information for each ethnic group.

Effect size calculation. Effect sizes were calculated using Cohen's d , which is based on standardized mean differences. This statistic is appropriate for examining group differences

based on categorical group variables and mean differences between groups on continuous variables as a function of the standard deviation ($d = \frac{M1-M2}{SD_{pooled}}$; Card, 2011). Statistical results reported in other forms (i.e., proportions, odds ratios, chi square, p values) were converted into d . Overall effect sizes and conversions to d were computed in Comprehensive Meta-Analysis (CMA v.2; Borenstein, Hedges, Higgins, & Rothstein, 2005).

Homogeneity of effect sizes. In meta-analysis, heterogeneity of effect sizes refers to variation in true effect sizes across studies. Within-studies heterogeneity occurs because of sampling error and refers to within-study variability, and between-studies heterogeneity which refers to variability across studies that may be attributable to other factors (Hunter & Schmidt, 2000). Heterogeneity is typically assessed using the Q and I^2 statistics (Higgins, Thompson, Deeks, & Altman, 2003). The Q statistic

$$Q_{total} = \sum (w_i ES_i^2) - \frac{(\sum w_i ES_i)^2}{\sum w_i}$$

(Card, 2011) is calculated using the sum of each study's squared deviation weighted by the inverse-variance for each study overall studies it is evaluated against a chi-square distribution with $k-1$ degrees of freedom (k : number of studies; Borenstein, Hedges, Higgins, & Rothstein, 2009). The I^2 statistic refers to the percentage of variation across studies that indicates true differences in effect sizes, and is calculated based on the ratio between Q heterogeneity over the total variance across effect sizes. The I^2 estimate ($I^2 = 100\% \times \frac{(Q-df)}{Q}$) is evaluated on a 0-100% scale, with values closer to 0 indicating no heterogeneity and values over 75% indicated high heterogeneity (Higgins et al., 2003). Finally, a third index of

heterogeneity is the τ^2 ($\tau^2 = \frac{Q-df}{C}$), which represents the variance in effect sizes for an infinite number of studies.

Moderator analyses. In the presence of between-studies heterogeneity, moderator analyses are undertaken in order to examine variables or characteristics between studies that moderate the obtained effect sizes. In the present meta-analyses, methodological moderator variables were examined using a weighted multiple regression analysis in order to account for dependency between the variables. Categorical variables were dummy-coded and were entered in the analyses along with continuous variables (i.e., year of publication). A Q estimate was first obtained to calculate the heterogeneity across each ethnic group comparison using the formula $Q = SS_{reg2} - SS_{reg1}$ with $k-1$ as degrees of freedom (k =number of levels per moderator variable) and evaluated on a chi-squared distribution (Card, 2011). Follow-up of effect sizes were calculated by obtaining an effect size for each level of the moderator ($d = \text{constant} + B$), the adjusted standard error per effect size ($SE_{adj} = \frac{SE}{\sqrt{MS_{res}}}$, and confidence intervals (95% CI = $ES \pm (1.95 \times SE_{adj})$). In the present meta-analyses, the moderators were coded as follows: Year of publication (continuous), publication (published, unpublished), age (childhood, adolescence, crossing), definition (yes, no), measure (questionnaire, Olweus' BVQ, peer nominations, one-to-four items), and country (Canada, US, UK, European other, other).

Publication bias. Publication bias is a common problem in meta-analysis. Non-significant results are less likely to be published and thus bias may occur toward underrepresentation of the studies resulting in inflated effect sizes. In order to reduce publication bias, a search of the grey literature, backward and forward searches were

conducted to obtain unpublished findings. Statistically, Orwin's (1983) failsafe *N* was examined in CMA to assess the extent of publication bias in the present meta-analyses. Orwin's failsafe *N* is calculated based on the number of potential studies that would be needed in order to yield a trivial effect size (Borenstein et al., 2009).

Study 3: School Ethnic Composition, Bullying and Peer Victimization

The third study consisted of a hierarchical multilevel analysis on school ethnic composition and bullying and peer victimization among ethnic majority (White) and minority (non-White) youth. This survey study was conducted in a large sample of 11,649 6-18 year old students across 96 schools in Southern Ontario. The goal of the study was to examine whether (a) ethnic minority students are victimized more than ethnic majority students in schools where they are numerically underrepresented, and (b) ethnic minority students perpetrate more bullying in schools where they hold the numerical majority. Because the sample consisted of 76.9% White students, which is representative of the Canadian society (Statistics Canada, 2011), ethnic composition was assessed as a continuous variable ranging from 0-100%, with an average of 23% ethnic minority students in schools.

Because of the nested structure of the data (students nested within schools), two 2-Level models were constructed using Mplus (v. 6.12; Muthén & Muthén, 1998 –2012) in order to examine whether ethnic proportions at schools predicted bullying and peer victimization for ethnic majority and minority students. At Level 1, individual ethnicity was examined as a predictor of bullying and peer victimization respectively, and sex and grade division were entered as control variables. At Level 2, the proportion of ethnic minorities in the schools was examined as a predictor of bullying perpetration and victimization at the school level. Five subtypes of bullying perpetration and peer victimization were entered as

outcome variables (general, physical, verbal, social, and cyber). In order to control for the potential influence of bullying perpetration and victimization on each other, bullying subtypes were entered as control variables for the peer victimization model, and peer victimization subtypes were entered as control variables for the bullying perpetration analysis. It was hypothesized that ethnic majority and minority students would report greater bullying victimizations in schools with a low proportion of same-ethnicity peers, and conversely, both groups were expected to report lower bullying victimization in schools with a high proportion of same-ethnicity peers. With regards to bullying perpetration, it was hypothesized that a higher proportion of same-ethnicity peers would be associated with greater bullying perpetration for both ethnic groups.

Chapter 2 – Study 1

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Meta-Analytic Results of Ethnic Group Differences in Peer Victimization

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Research on the prevalence of peer victimization across ethnicities indicates that no one group is consistently at higher risk. In the present two meta-analyses representing 692,548 children and adolescents (age 6–18 years), we examined ethnic group differences in peer victimization at school by including studies with (a) ethnic majority–minority group comparisons ($k = 24$), and (b) White and Black, Hispanic, Asian, and Aboriginal comparisons ($k = 81$). Methodological moderating effects (measure type, definition of bullying, publication type and year, age, and country) were examined in both analyses. Using Cohen's d , results indicated a null effect size for the ethnic majority–minority group comparison. Moderator analyses indicated that ethnic majority youth experienced more peer victimization than ethnic minorities in the US ($d = .23$). The analysis on multiple group comparisons between White and Black ($d = .02$), Hispanic ($d = .08$), Asian ($d = .05$), Aboriginal ($d = -.02$) and Biracial ($d = -.05$) groups indicated small effect sizes. Overall, results from the main and moderator analyses yielded small effects of ethnicity, suggesting that ethnicity assessed as a demographic variable is not an adequate indicator for addressing ethnic group differences in peer victimization. Although few notable differences were found between White and non-White groups regarding rates of peer victimization, certain societal and methodological limitations in the assessment of peer victimization may underestimate differences between ethnicities. *Aggr. Behav.* 41:149–170, 2015. © 2014 Wiley Periodicals, Inc.

Keywords: peer victimization; ethnicity; race; children and youth; meta-analysis

INTRODUCTION

The prevalence of peer victimization and its negative effects on children and adolescents have been extensively researched across countries. There is an abundance of findings pertaining to peer victimization and developmental patterns, sex differences, psychosocial outcomes and risk factors (e.g., Brunstein-Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007; Pellegrini & Long, 2002; Strohmeier, Kärnä, & Salmivalli, 2011; Vaillancourt et al., 2010). In addition, several meta-analyses have been conducted on peer victimization or aggression and psychosocial outcomes, sex differences, and interventions (e.g., Card et al., 2008; Hawker & Boulton 2000; Wilson, Lipsey, & Derzon, 2003). With far less attention, researchers have also looked at the prevalence of peer victimization among ethnic minority and immigrant groups, both in Europe and North America (Juvonen, Graham, & Schuster, 2003; Larochette, Murphy, & Craig, 2010; Verkuyten & Thijs, 2002). Findings on ethnicity and peer victimization indicate varying results with no one group experiencing consistently more peer victimization than others. Yet, ethnicity as a demographic variable is frequently included in bullying and peer

victimization research. In the present meta-analyses, we investigated whether the prevalence of peer victimization varied across ethnicities by looking at ethnic majority and minority groups. Ethnicity was examined as a demographic variable as the majority of studies obtained did not assess other aspects of cultural affiliation such as ethnic identity or acculturation. We included methodological moderators (i.e., measures) that could explain variation between studies. Furthermore, researchers use different definitions of peer victimization, ethnicity/race, and methodologies to assess peer victimization; thus, in the sections that follow, we provide brief descriptions of the constructs examined in the present meta-analyses.

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PEER VICTIMIZATION

Children and adolescents experience peer victimization when they become the target of peer aggression. Researchers use different terms to describe peer victimization (i.e., bullying, peer harassment, peer abuse, and bullying victimization), and different measures to assess exposure to this type of abuse. Nevertheless, being victimized or bullied by peers can be defined as a “systematic abuse of power” (Smith & Sharp, 1994; p.2). Children who are bullied by their peers have less power than their abuser(s), and they are repeatedly, and purposefully aggressed upon by an individual or a group of individuals (Olweus, 1994).

Peer victimization covers a wide range of actions intended to harm another person, and can take many forms, such as *verbal* (e.g., name-calling), *relational* (social or indirect; e.g., exclusion, gossiping, and spreading rumours), *physical* (e.g., hitting and kicking), and *cyber* (e.g., Crick & Grotpeter, 1995; Österman et al., 1994; Rivers & Smith, 1994; Williams & Guerra, 2007). Peer victimization typically takes place at school in areas of low supervision such as on the playground, in washrooms, and hallways (Vaillancourt et al., 2010). Peer victimization occurs across different ages, although age differences in the forms and frequency of victimization have been consistently reported. For example, boys are more likely to engage in physical aggression (Côté, Vaillancourt, LeBlanc, Nagin, & Tremblay, 2006) and overt aggressive behavior is more prevalent in younger children, particularly among elementary school students (Pepler, Connolly, & Craig, 1999; Vaillancourt et al., 2010). In the present meta-analyses, we included studies that measured peer victimization both as general peer aggression and as bullying.

PEER VICTIMIZATION AND ETHNICITY

Researchers have examined ethnic majority and minority youths' inter-ethnic peer relationships (i.e., friendship formation and quality; Chan & Birman, 2009; Smith & Schneider, 2000), peer preferences for sharing activities and friendships (e.g., Boulton & Smith, 1992, 1996), and prejudice and ethnic in-group/out-group attitudes (e.g., Aboud, Mendelson, & Purdy, 2003). The majority of the findings suggest that children tend to select same-ethnicity peers as close friends or partners for sharing activities throughout development (Graham, Taylor, & Ho, 2009), and although inter-ethnic friendships do occur, they are characterized by less closeness than co-ethnic friendships (e.g., Schneider, Dixon, & Udvari, 2007). Friend selection in childhood and adolescence is based on similarities, such as a belief system and cultural background (Bagwell & Schmidt, 2011), whereas characteristics that appear different from

the norm, such as being overweight or physically weak, are associated with peer victimization (e.g., Hodges & Perry, 1999; Sentenac et al., 2011).

Ethnicity or race is often a visible characteristic that may become the target of peer aggression as certain features, such as clothing, physical appearance, and accent appear different from the norm (e.g., Eslea & Mukhtar, 2000; Liang, Grossman, & Deguchi, 2007). Theoretically, no one model fully explains why members of a different ethnic group become the target of peer aggression or bullying. According to the Social Identity Theory (SIT; Tajfel, 1978), which considers the role of the individual within an ethnic group, people derive a sense of identity and hold a positive perception of the group they belong to (in-group) but are biased toward out-group members. This “in-group favoritism” and need to maintain a sense of belongingness to one's in-group may result in prejudice or discrimination toward out-groups (e.g., Tajfel, 1978; Tajfel & Turner, 1979) and may explain children's negative ethnic attitudes toward other-ethnicity peers. Research on peer preferences, assessed primarily through sociometric ratings (i.e., peers liked most/least), indicates that children tend to like same-ethnicity peers more than other-ethnicity peers and to display favorable in-group biases toward their own ethnic group. For example, Jackson, Barth, Powell, and Lochman, (2006) found that White students were more accepted by peers than Black students, whereas Black students were more accepted in classrooms with a higher proportion of same-ethnicity peers. Similarly, Bellmore, Nishina, Witkow, and Juvonen (2007) found that ethnic majority and visible minority students displayed same-ethnicity biases in peer acceptance and rejection such that they were more likely to accept peers of the same ethnicity and reject peers of other-ethnicity.

In-group biases in children's peer preferences are consistent with the Social Identity Development Theory (SIDT; see Levy & Killen, 2008), which posits that children are more likely to identify with a social group and to hold more prejudiced attitudes when social threats toward the in-group are perceived (McGlothlin, Edmonds, & Killen, 2008). In multicultural societies, where children interact with members of other ethnic groups from an early age, the tendency to belong to a specific group and favor the in-group, but not the out-group, may be more pronounced. In particular, ethnic majority children are more likely to favor and have positive attitudes toward their in-group than ethnic out-groups (e.g., Griffiths & Nesdale, 2006). At the group level, findings suggest that school and classroom ethnic composition are associated with peer victimization, and can act either as a protective or a risk factor. For example, numerically under-represented groups in a

school context experience more peer victimization than students who belong to the numerically larger group (e.g., Graham, 2006; Graham & Juvonen, 2002). Ethnic minority children experience more peer victimization in schools where they are also the numerical minority, whereas the opposite is true when they are the numerical majority (Agirdag, Damanet, van Houtte, & van Avermaet, 2010; Hoglund & Hosan, 2013; Vervoort, Scholte, & Overbeek, 2010). In contrast, greater ethnic diversity, where no one group holds a numerical advantage, is associated with lower self-reported peer victimization and loneliness (Graham, 2006). Given these associations, it is not surprising that it was also found that as ethnic diversity increased, so did self-worth and perceived school safety. The pattern observed in Graham's study can occur not only for a national ethnic majority (e.g., European Americans) versus national ethnic minorities, but also a national ethnic minority group can hold the numerical majority in a context, and thus, possess more power than a national ethnic majority. In another study, Graham and Juvonen (2002) found that the numerical majority groups (Hispanic and African American) received more peer nominations as aggressors than as victims, whereas the numerical minority groups (e.g., White) received more nominations as victims. Hanish and Guerra (2000) reported that, although African American and White students did not differ in their victimization experiences, White children attending schools with low proportions of same-ethnicity peers were at greater risk of being bullied than White students attending predominantly White schools. In a multi-informant study, African American children were perceived by peers as engaging in more aggressive behavior than European American children, and African American girls were perceived by teachers as more aggressive and victimized than their European American peers (Putallaz et al., 2007). Juvonen, Nishina, and Graham (2006) studied 2,000 students in the US, taking into account the ethnic diversity of the school and classrooms, perceived school safety, and peer victimization. They found that greater ethnic diversity in the school and classroom was associated with less perceived peer victimization and predicted school safety. Similar findings have also been reported in Europe; Verkuyten and Thijs (2002) concluded that ethnic victimization depended on individual, as well as contextual factors. Specifically, a higher proportion of same-ethnicity peers was associated with less ethnic victimization for national ethnic majority students whereas a higher proportion of national ethnic majority students in the class was associated with more ethnic victimization for ethnic minority children.

Children and adolescents display racist and racially discriminatory behavior against peers that may stem

from family and societal attitudes toward the status of ethnic minorities, such as parental prejudice, general perceived cultural threat to the dominant group, and hostile attitudes toward high concentration of ethnic minorities (e.g., Chandler & Tsai, 2001; Dustmann & Preston, 2001, 2007; Sinclair, Dunn, & Lowery, 2005). According to SIDT, children younger than 4 years of age do not display signs of prejudice, but as they grow older it is more likely that they will identify with a social group and be exposed to prejudiced attitudes and social threat (McGlothlin et al., 2008). In addition to in-group/out-group attitudes and perceived threats to one's in-group, research on racial peer discrimination indicates that ethnic minority youth, and particularly visible minorities, experience discrimination from peers on varying levels. For example, Fisher, Wallace, and Fenton (2000) found that Asian and Hispanic students reported more racist peer discrimination compared to African American and White students, and Dubois, Burk-Braxton, Swenson, Tavendale, and Hardesty (2002) reported that Black youth experienced more prejudice and discrimination than White youth. Although peer discrimination and peer victimization stem from different theoretical backgrounds, there are similarities in the methods assessing students' experiences, suggesting that ethnicity becomes a factor for differential treatment, social exclusion and name-calling against minority youth. For example, Fisher et al. (2000) and DuBois et al. (2002) examined peer discrimination by assessing whether students had been called racially insulting names, excluded from peer activities or groups, and threatened because of their race. This behavior is consistent with relational and physical forms of peer victimization, however, in peer victimization research, participants are mostly asked about general experiences of peer abuse without focusing on ethnicity as a reason for being victimized. An exception to this pertains to ethnic peer victimization, a form of victimization scarcely examined in the literature, which indicates that ethnic minority students report higher peer victimization when asked specifically if they have been bullied, excluded, or physically hit because of their ethnicity (e.g., Verkuyten & Thijs, 2002).

Peer victimization and racial discrimination have not been frequently examined concurrently, however, there are findings suggesting that the two constructs are related in ethnically diverse samples. Verkuyten and Thijs (2006) reported that the latent factors of general and ethnic peer victimization were strongly associated among ethnic minority participants, suggesting that the experience of discrimination and personal peer victimization are closely associated for ethnic minorities. More recently, Seaton, Neblett, Cole, and Prinstein (2013) found that perceived racial discrimination among ethnic

minority youth was associated with peer nominations of victimization. Thus, peer victimization, and particularly the ethnic subtype, shares many characteristics in common with non-ethnic forms of peer victimization, as well as with racial discrimination and racism. Repeated incidents of racist name-calling against a child at school involves both the stability present in verbal bullying behavior, as well as the racist content of racial discrimination or racism. Ethnic bullying and racism or ethnic discrimination appear to be similar in children's behavior although the terms are difficult to differentiate due to assessments and the lack of a clear theoretical background for the role of ethnicity in peer victimization.

Findings from ethnic peer victimization research indicate that ethnic minorities tend to be bullied more often because of their cultural background than ethnic majorities (e.g., Verkuyten & Thijs, 2002), whereas findings on peer victimization without a focus on the ethnic subtype are mixed (Demaray & Malecki, 2003; Seals & Young, 2003). For example, European American students experienced the least amount of peer victimization compared to Asian, African American, and Hispanic/Latino students (Nishina, Juvonen, & Witkow, 2005), while findings from nationally representative data showed that Black students experienced the least amount of peer victimization compared to White and Hispanic students (Nansel et al., 2001). Bradshaw, Sawyer, and O'Brennan (2009) also found that African American and/or Hispanic participants reported less peer victimization. In the present meta-analyses, our aim was to explore whether ethnic majority and minority youth report different rates of peer victimization within schools. Although it was not possible to ascertain the ethnicity of the perpetrator as this was not assessed in primary research, our goal was to provide a comprehensive analysis on overall differences in reported peer victimization across ethnic majority and minority youth in order to examine whether findings from the peer victimization literature were similar to those observed in racial discrimination research.

METHODOLOGICAL IMPLICATIONS IN PEER VICTIMIZATION RESEARCH

Research on peer victimization with ethnic majority and minority samples has been on the rise since the early 1990s, with an increasing number of studies published over the last decade (Bradshaw et al., 2009; Vervoort, Scholte, & Overbeek, 2010). Ethnic differences have at times been addressed as a primary study focus (e.g., Agirdag et al., 2010; Graham & Juvonen, 2002; Verkuyten & Thijs, 2002), but more often they have been examined as part of descriptive analyses (e.g.,

Juvonen, Nishina, & Graham, 2000; Undheim & Sund, 2010). The methodologies employed in peer victimization research, such as definitions, reporters, and measures, may be associated with different rates of peer victimization experiences between ethnic groups. In the present meta-analyses, we included methodological variables as potential moderators (see below) in order to examine whether they account for differences in peer victimization across ethnic groups.

Definition

The definition of bullying includes three main characteristics: intention to cause harm, repetition over time, and a power imbalance between the children involved (e.g., Olweus, 1994). The vast majority of studies conducted on bullying victimization are based on the description or adaptations of Olweus' (1994) definition. We included the presence or absence of a definition as a moderator in order to examine whether ethnic majority and minority students' reports of victimization differ if presented with a definition of bullying. The variability in measurement across studies may under- or over-estimate the prevalence of peer victimization; definition-based measures have been shown to underestimate the prevalence of bullying compared to behavior-based measures (e.g., Sawyer, Bradshaw, & O'Brennan, 2008), whereas general peer victimization questions have been shown to be better at classifying non-involved students (Vaillancourt et al., 2010). Moreover, the provision of a definition has been shown to influence prevalence rates. For example, Vaillancourt et al. (2008) found that students who were provided a definition of bullying reported being victimized less often than students who were not given a definition.

Measurement and Reporter Type

The prevalence of peer victimization is assessed with self-ratings, adult-, and peer-reports. Self-reports are the most commonly administered measures and provide the individual's perspective on personal experiences with victimization (Ladd & Kochenderfer-Ladd, 2002), especially for covert behavior that is harder to detect. Peer nominations, parent- and teacher-reports offer alternative estimates for the identification of children who are targets of peer victimization (Branson & Cornell, 2009). In previous meta-analyses, reporter type has been shown to moderate the relation between aggression and sex (Archer 2004; Card et al., 2008). Self-, peer-, and teacher-reports have been used in research with ethnic minority or immigrant youth as well; for example, some peer-report findings indicate that national ethnic majority children (i.e., White, native Austrian) were most, and ethnic minority children least,

likely to be classified as victims (Juvonen et al., 2003; Strohmeier, Spiel, & Gradinger, 2008). In addition to the various sources of reports, peer victimization stems from aggression and bullying literatures, which use, to a large extent, similar questionnaires and response scales (i.e., dichotomous, forced-choice frequency options). For example, in peer aggression, where children are “recipients of aggressive behavior” or “aggrieved upon,” researchers use measures on direct (e.g., physical) and indirect (e.g., relational) actions, without necessarily involving repetition or power imbalance (e.g., Social Experiences Questionnaire; Crick & Grotpeter, 1995). Likewise, being bullied is assessed with measures involving the same behavior (e.g., Olweus’ Bully/Victim Questionnaire; Safe Schools Survey), with the addition of repetition and power imbalance in the definition of bullying. In addition, measures that consist of one-to-four items assessing general or specific types of peer victimization are used (e.g., Verkuyten & Thijs, 2002).

Age

Peer aggression and bullying are prevalent throughout the childhood and adolescent years, however, there are differences in the rates of aggression and the forms perpetrated between younger and older youth. Bullying and peer victimization are more prevalent in childhood (Brown, Birch, & Kancherla, 2005), and increase during the transition to middle school (Pellegrini & Long, 2002), while overall rates of peer victimization decrease from childhood to adolescence (Pepler et al., 1999). In addition, physical or direct forms of peer aggression are more prevalent in younger ages whereas verbal or relational forms are more prevalent in older ages (Björkqvist, Lagerspetz, & Kaukiainen, 1992). In the present study, we examined the moderating effect of age (childhood vs. adolescence) in peer victimization between ethnic majority and minority youth.

Country

The history of immigration, ethnic diversity, and status of ethnic minorities differ between European and North American countries, and country-level differences in racial attitudes toward specific ethnic groups (e.g., Hispanic vs. African American) may be associated with variations in youths’ peer relationships. In Canada, there is a general acceptance of multiculturalism policy, which has been in place for decades, and has resulted in positive outcomes such as the support of new migrants and their integration in the workforce (Reitz, 2012). Research across provinces has shown that most Canadians are tolerant of immigrants, although attitudes are guided by a hierarchical preference toward those who are more

similar to English or French Canadians (Berry, 2006). In the US, earlier findings suggested that attitudes toward immigrants were found to be rooted in economic reasons, such as the perceived effect of immigration on unemployment (Citrin, Green, Muste, & Wong, 1997), but more recent evidence indicates that anti-immigrant sentiment may be associated with cultural ideologies and ethnocentrism more so than economic reasons (Hainmueller & Hiscox, 2010). In Europe, multiculturalism policies and immigrants’ integration vary across countries and are influenced by the economic and cultural conditions in each country. In the UK, for example, a similar hierarchical preference as in Canada has been observed, where discrimination against immigrants varies based on whether one belongs to a group with cultural and political links to the UK or not (Ford, 2011). Considering the variations in attitudes toward immigrant populations across countries, we assessed country as a moderator in order to examine whether peer victimization across ethnic groups differed across countries with potentially different attitudes toward ethnic minorities.

Year of Study

Ethnic diversity in schools has increased with changing demographics and the growth of ethnic minority populations across countries. For example, the Hispanic population in the US has increased in the last decades, and it is expected to become the country’s largest ethnic group (Lopez, 2014). We included year of study as a moderating variable in order to examine whether ethnic majorities and minorities experience more or less peer victimization in studies conducted in more recent years compared to the 1990s and early 2000s.

CURRENT STUDY

The purpose of the present study was to collect and analyze findings spanning 20 years of research (1990–2011) in order to examine whether ethnicity was associated with more or less peer victimization. We included studies with both ethnic majority and minority samples in order to allow for between-group comparisons. We defined ethnic groups according to the ones sampled in research, and we addressed ethnicity as a demographic characteristic. Ethnicity is a heterogeneous concept that is measured differently across countries; however, we opted to use ethnic categories as they appeared in the primary studies. Categorical ethnic self-labeling is a common way to assess participants’ ethnicity (Phinney, 1996), and the ethnic categories in studies of peer victimization are drawn from Census-based, forced-choice options. Ethnic majority groups

were defined as those belonging to the mainstream or national ethnic group in the country where each study was conducted (e.g., White/European-American in the US). Ethnic minority groups were defined as those belonging to a visible (e.g., African American in the US) or a non-visible ethnic minority group (e.g., Former Yugoslavian in Austria). When immigrant and language status were used as a proxy of ethnic status, participants were classified as a majority (non-immigrant; English as first language) and minority (immigrant; first language other than English).

Children's and youths' experiences of peer victimization were assessed through (1) aggression and bullying measures; and (2) dichotomous and frequency response scales. Because research on peer victimization and ethnicity is more sporadic than non-ethnicity-based research, and because measurement of peer victimization varies across studies, we included a broad definition of peer victimization so as to include all possible outcomes in the analyses. Thus, the main terms we searched for were "victimized or harassed by peers" and "being bullied." We also included studies in which both general and ethnic forms of peer victimization were assessed. Due to the diverse measures, definitions, and rating scales mentioned earlier, which may lead to different prevalence rates, we opted to include measures and reporters to be examined as moderators. Specifically, we included the: (1) presence or absence of bullying definition; (2) reporter type; (3) type of measure; (4) publication type; (5) country; (6) age; and (7) year of study. Type of measure was coded as questionnaire, Olweus' Bully/Victim Questionnaire, one-to-four items, peer nominations, and other. Questionnaires were defined as validated surveys or any questionnaire-type measure with five or more items, including multiple behavioral items. One-to-four items were defined as measures of general questions on peer victimization (i.e., "Have you ever been bullied?"), short scales consisting of up to four items, or up to four items taken from other questionnaires. Publication type consisted of peer-reviewed, dissertations/theses and reports. For the final analyses, publication type was classified as published (peer-reviewed) or other, and country was categorized into US, Canada, Europe, and Other. Age was obtained through the sample descriptions and because not all studies reported age as a continuous variable (i.e., mean age), we classified age groups into three categories (under age 10, adolescence, crossing range 6–18).

Because research findings on ethnicity and peer victimization vary across ethnic groups, we did not expect any ethnic group to experience more peer victimization than others. Thus, the analyses were exploratory with the aim to examine whether certain

methodological variables and ethnicity were associated with peer victimization.

METHOD

Literature Searches

Research findings (1990–2011) were collected by searching electronic databases (PsycInfo, ERIC, ProQuest Dissertations & Theses, PubMed, Medline, Google Scholar), main conferences in the area of peer relationships (i.e., Society of Research on Adolescence, International Society for Research on Aggression, Society for Research in Child Development), and citations from studies included in the meta-analyses. In addition, government reports on peer victimization were reviewed. The keywords used separately and in combination were "bully*, victim*, relational/physical/verbal/overt/direct/indirect victim*, overt victim*, ethnic* or rac*, peer victim*, and peer harass*." The term harassment is used both in Europe and North America to describe sexual, peer, and racial forms of victimization. In the context of peer victimization, it has been used in peer nominations and self-report questionnaires similar to those used in bullying and aggression research (e.g., Graham & Juvonen, 2002; Nishina, Juvonen, & Witkow, 2005). The term "aggress*" was not included in the final keywords as initial searches yielded more than 50,000 results and our interest was specifically on peer victimization. Because ethnic differences in peer victimization have been examined either directly or indirectly, we included studies with a primary focus on ethnicity, as well as studies in which differences across groups were reported in descriptive analyses. Originally, the literature searches yielded over 20,000 results, which were narrowed down by limiting the age groups to 6–18 year-old, research in English, and excluding general violence and special populations (described below). The final sample of studies consisted of 10,000 titles (including duplicates) in the form of peer-reviewed articles, dissertations, reports, and chapters, which were obtained and examined for inclusion. Studies were reviewed for ethnic group differences in peer victimization by looking at the abstract, method, and results sections. If ethnicity was not mentioned in the abstract, the rest of the sections were examined for secondary references to ethnicity. Studies in which multiple ethnic groups were included but no results on ethnic differences were reported were excluded. Because ethnicity is almost always assessed as part of demographics, we only contacted authors who reported partial results to provide us with further statistical information. We also excluded studies if a majority group (e.g., White) was not included or if no results on peer victimization

were reported despite the presence of multiethnic samples.

Selection Criteria

The following criteria were examined in each study for inclusion: (1) identifiable samples of both national ethnic majority (i.e., European Canadian/American) and national ethnic minority school-aged children (i.e., non-White) and adolescents (6–18 years-old); and (2) peer victimization experienced at school measured by validated questionnaires, presence or absence of definition of bullying, and one-to-four-item measures. Studies with peer-, self-, and teacher- reports were included, as well as cross-sectional and longitudinal designs (averaged across time points).

Studies in which (1) gifted, foster, maltreated, disability, refugee, and clinical samples were used were excluded from the meta-analyses, as well as studies with only ethnic majority or only ethnic minority groups; and (2) school peer victimization was not clearly assessed (all studies were thoroughly examined for victimization perpetrated by peers within the school setting), were excluded from the meta-analyses. We excluded two studies in which the ethnic differences were based on politico-historical backgrounds (i.e., Arabic and Israeli). In order to ensure that the perpetrators of aggressive behavior were peers, we excluded cyber and neighborhood victimization. Finally, in cases where more than one paper was published from the same dataset, we included one source (established primarily through contacting authors). For findings reported in multiple papers or formats (peer-reviewed papers, dissertations), we included the source that provided the most information.

Sample of Studies and Coded Characteristics

A total of 105 studies were included in the meta-analyses and the following information was coded: (1) general information: authors, year, country (Canada, US, UK, Other European, Other), publication type (published, unpublished); (2) sample characteristics: sample size, number of participants per ethnicity, average age/age or grade range (categorized into childhood; up to age 10 or grade 5, adolescence; 11 years old and older or grades 6–12, crossing ranges; ages 9–18 or grades 4–12); (3) methodology: bullying definition (yes/no), form of peer victimization (general if composite score or if not otherwise specified, relational, verbal, physical, direct/overt, indirect/covert, ethnic); and (4) summary statistics used for effect size calculations.

Ethnicity was coded according to the categories provided in the primary studies. Twenty-four studies provided results for ethnic majority–minority groups and 70 for multiple group comparisons (e.g., White–

Asian). Eight studies provided separate sources of effect sizes, which were combined for the main analysis, but not the moderator analysis. The total sample size of the meta-analysis was $N = 692,548$, of which 364,395 were identified as national ethnic majority and 327,613 as ethnic minorities. The final sample size for ethnic minorities included in the moderator analyses was $N = 302,016$ (Black, Hispanic, Asian, Aboriginal, Bicultural, ethnic minority). Participants' age ranged from 6 to 18. Of all the studies included in the meta-analyses, 12 were conducted in Canada, 68 in the US, 22 in Europe, and 3 in other countries.

Inter-Coder Agreement

All studies were coded by the first author. A second coder, a graduate student, coded 13% of the total number of studies included in the meta-analyses in order to establish coding reliability. Cohen's kappa analysis indicated acceptable results, $\kappa = .70$ – 1.00 (Landis & Koch, 1977). Rater agreement, calculated based on percentage of agreement between coders, indicated agreement over 92%.

Effect Size Calculation and Overview of Analyses

Overall effect sizes were calculated for 105 studies using the software Comprehensive Meta-Analysis v2.2.064 (CMA; Borenstein, Hedges, Higgins, & Rothstein, 2005). Cohen's d was selected as an index of effect size, which provides the standardized mean differences between two groups on continuous measures (or artificially dichotomized measure) using a pooled standard deviation (Card, 2011). We excluded studies in which multilevel modeling techniques were used due to the presence of more than one predictor variables at level one and the difficulties in precise calculation of an effect size. This was a limiting factor for including studies in which variables, such as the social context (i.e., numerical proportions), have been examined as a factor in peer victimization and bullying. Results from studies on social context and peer victimization are typically based on multilevel modeling statistics, and the calculation of effect sizes from the statistics provided in these studies was not possible.

Two meta-analyses were conducted, one for ethnic majority–minority groups based on 24 studies and one for multiple group comparisons based on 81 studies. In the first analysis, participants were often grouped into one category in the original studies due to small sample sizes. Effect sizes were calculated for the ethnic majority–minority groups with peer victimization as a single outcome. In three of these studies, results were reported separately by subtype of peer victimization. Using CMA, analyses were conducted on these three

studies in order to (a) combine them into one score per study; and (b) examine whether results differ by subtype of victimization. No differences were found between different types of peer victimization versus one composite score for the ethnic majority–minority comparison. Thus, results are presented for a combined peer victimization outcome.

In the second meta-analysis, effect sizes were calculated for each ethnic group comparison (i.e., White–Black). Subtypes of peer victimization were examined where possible, and non-independence was assumed when testing for group differences. Overall, statistics for one general score (composite, or no subtype specified) were reported in the majority of the studies, verbal victimization was included in six, relational in nine, physical in seven studies, ethnic in nine, and “overt/direct” and “covert/indirect” victimization were assessed in five each. Similar to the first analysis, results for different types of peer victimization were collapsed into one score, but the ethnic subtype was examined separately as well.

Homogeneity of Effect Sizes

Homogeneity of effect sizes suggests a common effect across studies (Higgins, Thompson, Deeks, & Altman, 2003). Homogeneity tests assess whether variability across studies is due to sampling error or true differences in effect sizes. Heterogeneity was examined based on the Q and I^2 statistics (Borenstein, Hedges, Higgins, & Rothstein, 2009). The Q index was calculated based on the weighted squared deviations between studies and was interpreted as a χ^2 with $k-1$ degrees of freedom (k = number of studies). The I^2 index refers to the variability in effect sizes due to heterogeneity (Higgins et al., 2003). An $I^2 > 75\%$ suggests a large amount of heterogeneity, $I^2 \approx 50\%$ a moderate and $I^2 < 25\%$ a small amount of heterogeneity (Higgins et al., 2003). In the presence of heterogeneity, indicated by a statistically significant Q , results were based on the random-effects model which does not assume a common variance across studies, and moderators were examined to explain variability in effect sizes.

Moderator Analyses

In the presence of heterogeneity, we examined the significance of categorical and continuous moderators using the Q_{between} (Q_b) statistic (Lipsey & Wilson, 2001). Q_{between} was calculated using the formula $Q_{\text{between}} = Q_{\text{total}} - Q_{\text{within}}$. The statistic obtained was interpreted as a χ^2 , with $df = k - 1$ (where k = number of levels of moderator variable). A statistically significant Q_b value indicated significant differences between groups on the moderator levels. We examined moderator effects using a weighted multiple regression analysis in

SPSS following the procedures outlined by Card (2011) in order to account for dependency between the methodological moderator variables. Studies that provided more than one effect size (i.e., by age) were entered separately in order to examine moderator effects. Results from the moderator analyses are presented in Table I.

Publication Bias

We included an approximately equal number of studies with non-statistically significant and significant results (46 non-significant), and we further addressed the potential issue of publication bias and file-drawer problem by calculating Orwin's failsafe N . Orwin's failsafe N was calculated based on the number of potential studies that would be needed in order to yield a trivial effect size (Borenstein et al., 2009).

RESULTS

Preliminary Analyses

The majority of the studies included in the meta-analyses provided statistics on one composite score of peer victimization. Because in some studies results were also presented for different subtypes of peer victimization (e.g., relational and verbal), analyses were first performed for each ethnic majority–minority comparison on each subtype of peer victimization. For the ethnic majority–minority, White–Black, White–Hispanic, White–Asian, White–Aboriginal, and White–Biracial comparisons, there were similar findings with analyses using composite scores. The number of studies with results on each subtype of peer victimization for each ethnic group comparison (other than composite scores) was less than $k = 7$, thus, we present results on composite peer victimization scores only. In addition, in some of the moderator analyses, the number of studies included were less than 10; therefore, results should be interpreted with caution as the small number of studies per moderator level may not be generalizable to the population. Lastly, a negative effect size indicates higher outcome scores for the ethnic minority groups whereas a positive effect size indicates higher scores for the ethnic majority/White group.

Ethnic Majority–Minority Analysis

The first meta-analysis was performed on 24 studies with ethnic majority–minority groups followed by moderator analyses. Overall effect sizes and heterogeneity statistics were obtained in CMA and moderator analyses were performed in SPSS using weighted multiple regression. For studies in which statistics were reported for two time points or multiple outcomes per group, CMA was used to obtain a single effect size

TABLE I. Moderator Analysis Results from Multiple Group Comparisons Meta-Analysis

Ethnic Group Comparison	Q_{bet} (df)	k	d	95% CI
Ethnic Majority–Minority ($Q_{(df)}$, I^2 , τ^2)	269.22 (23)	91.46	0.05	
Random-effects			.01	
Moderators				
Publication type	8.00 (1) $p < .05$			
Peer-reviewed		15	.02	0.15, –0.10
Theses/Dissertations		10	–.16	–0.07, –0.25
Age	1.29 (1), ns			
Adolescence		17	–.01	0.10, –0.14
Crossing ranges		8	–.09	0.00, –0.18
Definition	6.86 (1), $p < .01$			
Yes		16	–.08	0.03, –0.20
No		9	.07	0.16, –0.01
Measure	2.14 (3), ns			
Questionnaire		11	–.00	0.10, –0.10
Olweus		4	–.09	0.00, –0.19
Peer nominations		1	–.06	0.05, –0.18
One-to-four items		9	–.04	0.01, –0.09
Country	66.99 (4), $p < .01$			
US		7	.23	0.44, 0.22
Canada		3	.13	0.35, –0.09
UK		6	–.16	0.02, –0.35
European Other		7	.17	0.07, –0.40
Other		3	.19	0.38, 0.00
White–Black ($Q_{(df)}$, I^2 , τ^2)	1048.16 (60)	94.27	.03	
Random-effects		61	.02	–0.03, 0.08
Moderators				
Publication type	257.12 (1), $p < .01$			
Peer-reviewed		39	.03	0.06, –0.00
Theses/Dissertations		24	–.25	–0.22, –0.27
Age	32.78 (2), $p < .01$			
Childhood		8	–.19	–0.13, –0.24
Adolescence		46	–.04	0.02, –0.10
Crossing ranges		9	.05	0.14, –0.03
Definition	68.64 (1), $p < .01$			
Yes		21	.06	0.09, 0.02
No		42	–.08	–0.07, –0.09
Measure	36.73 (3), $p < .01$			
Questionnaire		39	–.09	–0.05, –0.12
Olweus		4	.30	0.60, 0.02
Peer nominations		4	–.22	–0.10, 0.33
One-to-four items		16	–.00	0.01, –0.02
Country	20.71 (2), $p < .05$			
US		54	–.06	0.06, –0.18
Canada		8	.14	0.30, –0.00
Other		1	–.03	0.08, –0.15
White–Hispanic ($Q_{(df)}$, I^2 , τ^2)	588.18 (59), $p < .01$	89.87	.01	
Random-effects			.08	0.04, 0.12
Moderators				
Publication type	10.66 (1), $p < .01$			
Peer-reviewed		37	.07	0.10, 0.04
Theses/Dissertations		28	.01	0.05, 0.01
Age	17.73(2), $p < .05$			
Childhood		12	–.05	0.00, –0.12
Adolescence		40	.07	0.13, 0.00
Crossing ranges		13	.09	0.09, –0.07
Definition	27.41 (1), $p < .01$			
Yes		18	.15	0.19, 0.11
No		47	.05	0.05, 0.04

(Continued)

TABLE I. (Continued)

Ethnic Group Comparison	$Q_{\text{bet}} (df)$	k	d	95% CI
Measure	35.16 (3), $p < .01$			
Questionnaire		43	.07	0.10, 0.04
Olweus		4	.21	0.34, 0.06
Peer nominations		4	.31	0.43, 0.20
One-to-four items		14	.02	0.05, -0.00
White-Asian ($Q_{\text{df}}, F^2, \tau^2$)	302.56 (50), $p < .01$	83.80	.01	
Random-effects		50	.05	0.00, 0.10
Moderators				
Publication type	0.26 (1), ns			
Peer-reviewed		29	.08	0.12, 0.04
Theses/Dissertations		25	.07	0.10, 0.04
Age	11.93 (2), $p < .01$			
Childhood		10	-.00	0.05, -0.06
Adolescence		36	.09	0.16, 0.03
Crossing ranges		8	.00	0.10, -0.10
Definition	13.00 (1), $p < .01$			
Yes		19	.15	0.20, 0.11
No		35	.07	0.08, 0.06
Measure	126.60 (3), $p < .01$			
Questionnaire		29	.06	0.08, -0.61
Olweus		5	-.10	0.58, -0.80
Peer nominations		5	.88	1.60, 0.16
One-to-four items		14	.10	0.81, -0.59
Other		1	.05	0.73, -0.65
Country	14.95 (2), $p < .01$			
US		36	.06	0.23, -0.11
Canada		15	.16	0.35, -0.01
Europe (UK)		2	.30	0.78, -0.17
Other		1	.29	0.46, 0.11
White-Aboriginal ($Q_{\text{df}}, F^2, \tau^2$)	117.10 (18)	84.64	.02	
Random-effects		19	-.04	-0.14, 0.06
Moderators				
Publication type	1.46, ns			
Peer-reviewed		11	-.13	0.16, -0.04
Theses/Dissertations		10	-.01	0.10, -0.36
Age	0.76, ns			
Childhood		5	-.02	0.09, -0.14
Adolescence		14	-.10	0.07, -0.28
Crossing ranges		2	-.04	0.17, -0.26
Definition	6.99 (1), $p < .05$			
Yes		10	.01	0.09, -0.07
No		11	-.14	-0.06, -0.13
Measure	4.67 (2), ns			
Questionnaire		12	-.11	0.06, -0.30
Olweus		2	.32	0.83, -0.19
One-to-four items		5	-.18	-0.02, -0.35
Peer		1	-.13	0.24, -0.51
Country	4.99 (1), $p < .05$			
US		16	-.23	-0.01, -0.45
Canada		5	-.01	0.09, -0.07
White-Biracial ($Q_{\text{df}}, F^2, \tau^2$)	23.05 (9)	60.95	0.02	
Random-effects		10	-.06	-0.17, 0.05
Moderators				
Publication type	1.61 (1), ns			
Peer-reviewed		5	-.06	0.16, -0.29
Theses/Dissertations		7	-.08	0.27, -0.10
Age	0.45 (2), ns			
Childhood		1	.12	0.72, -0.46
Adolescence		9	-.05	0.53, -0.63
Crossing ranges		2	.00	0.67, -0.66

TABLE I. (Continued)

Ethnic Group Comparison	$Q_{\text{bet}} (df)$	k	d	95% CI
Definition	0.52 (1), <i>ns</i>			
Yes		3	-.16	0.24, -0.56
No		9	-.01	0.06, -0.56
Measure	7.30 (1), $p < .01$			
Questionnaire		10	.33	1.27, -0.62
One-to-four items		2	-.98	-0.28, 1.87
Country	13.12, $p < .05$			
US		9	-.38	0.64, -1.44
Canada		2	.40	0.38, -1.14
Other		1	.98	0.64, -1.44

estimate (assuming dependence where pertinent). The comparisons were entered as majority-minority, indicating that a positive d was in the direction of majority and a negative d in the direction of the minority group. Variation in effect sizes was estimated at $\tau^2 = .05$ and 91% of this variability could be explained by heterogeneity across studies ($I^2 = 91.46$). Homogeneity was assessed using the Q index, which was statistically significant, ($Q(23) = 269.22$, $p < .05$). Because heterogeneity was present, results were based on the random-effects model for basic effect size estimates. Based on the random-effects model, the magnitude of the weighted mean effect size was small and not statistically significant ($d = 0.01$, 95% CI $[-0.09, 0.10]$). Effect sizes across studies ranged from -0.54 to 0.69 . In order to examine publication bias, we compared effect sizes obtained through published and unpublished sources independently of other moderator variables in CMA. In addition, we obtained Orwin's failsafe numbers for all ethnic group comparisons.

Moderator analyses. Moderator analyses were performed using multiple regression in order to account for dependency between methodological variables. We included definition, measures, country, age, publication status, and year of study based on weighted mean effect sizes. Reporter type was excluded from all moderator analyses because all studies in this analysis were based on self-reports. First, multiple regression analyses were performed separately for each moderator controlling for all other moderator variables (centered) in order to examine statistically significant heterogeneity in effect sizes per moderator. In the presence of heterogeneity, follow-up analyses were performed using dummy-coded variables.

Results indicated that publication type ($Q(1) = 8.00$, $p < .05$) and country ($Q(4) = 66.99$, $p < .01$) contributed significantly to the effect sizes in peer victimization between ethnic majority and minority youth. Follow-up analyses indicated that, controlling for all other methodological moderators, ethnic minorities reported

more peer victimization than ethnic majorities in unpublished studies compared to published studies ($d = -.16$, $k = 10$, 95% CI $[-0.07, -0.25]$), and ethnic majorities reported more victimization than ethnic minorities in the US ($d = .23$, $k = 7$, 95% CI $[0.44, 0.22]$) than in other countries. Orwin's failsafe N was estimated at 442 studies.

Multiple Ethnic Group Comparisons

The next meta-analysis was performed on dyadic ethnic group comparisons (e.g., White-Black), which provides more detail on peer victimization rates by allowing specific comparisons between majority and minority groups. The main groups included were White, Black, Hispanic, Asian, and Aboriginal. Nine studies were entered two or three times in SPSS (for moderator analyses) because results on peer victimization were presented separately by age or sex (Buhs, McGinley, & Toland, 2010; Larochette, 2009; Mahlerwein, 2010; Menzer, Oh, McDonald, Rubin, & Dashiell-Aje, 2010; Park, 2005; Polasky, 2010; Sawyer et al., 2008; Tse, 2008; Vaillancourt). Fewer than five studies reported results by sex, thus, we did not examine this variable as a moderator. Three studies provided separate effect sizes for self- and peer-reports (Lieske, 2007; Putallaz et al., 2007; Strohmeier et al., 2008), which were combined into one estimate for the overall effect size in CMA. For two studies, the means and standard deviations were combined across time points and/or age groups (Menzer et al., 2010; Polasky, 2010). Last, for two studies (Larochette, 2009; Agirdag et al., 2010), multiple ethnic minority groups were collapsed into one category (i.e., European and Asian).

Across all studies including ethnic comparisons not followed-up due to small number of studies (e.g., White-Turkish), results on the composite peer victimization outcome indicated a small and non-statistically significant effect size ($d = .04$, $k = 84$, 95% CI $[-0.00, 0.08]$) based on the random-effects model. Variation in true effect sizes was $\tau^2 = 0.02$ and 81% of this variation was

due to differences between studies ($I^2 = 81.03$). Tests of homogeneity across effect sizes indicated a statistically significant Q index, suggesting the presence of heterogeneity ($Q(83) = 437.596, p < .01$). Analyses performed by removing each study that could be a potential outlier indicated similar results, thus, studies with higher observed values were retained in all analyses. Heterogeneity was present in all comparisons, thus, results were based on the random-effects model for effect sizes. We examined publication bias by comparing differences in effect sizes between published and unpublished sources. The analysis indicated that across all groups (White vs. all ethnic minorities), ethnic majorities reported more peer victimization than minorities in published studies ($d = 0.04$, 95% CI [0.03, 0.06], $Q(1) = 19.55, p < .05$). Next, we examined ethnic group differences for studies that provided sufficient number of studies per White-ethnic minority comparisons, specifically, White-Black, White-Hispanic, White-Asian, White-Aboriginal, and White-Biracial. Publication bias and moderator analyses were performed separately for each of the ethnic group comparisons. Reporter type was excluded from the moderator analyses due to overlap with measures on peer reports/peer nominations. All studies except one were based on self- or peer-reports, and the variable overlapped with measure type for peer nominations. Overall, analysis on the five main group comparisons included in the meta-analysis indicated an effect size $d = .06$ under the random-effects model ($Q(75) = 262.47, p < .05, k = 76$, 95% CI [0.02, 0.11], $\tau^2 = .02, I^2 = 79.31$).

White-Black. The overall effect size for the White-Black group comparison was small under the random effects model ($d = .02, k = 61$, 95% CI [-0.03, 0.08]) and heterogeneity across effect sizes was present ($Q(60) = 1048.16, p < .05$). Publication status examined as an index of publication bias indicated large heterogeneity ($Q(1) = 542.65, p < .05$) and was further followed-up in the moderator analyses. Moderator analyses indicated that all methodological moderators accounted for heterogeneity in effect sizes. Follow-up analyses indicated that, controlling for all other moderator variables, Black students reported more peer victimization in studies conducted toward 2011 ($d = -.08$, 95% CI [-0.07, -0.08]) whereas White students reported more peer victimization in earlier years ($d = 0.05$, 95% CI [0.06, 0.05]). Black students reported more peer victimization than White students in unpublished studies ($d = -.24, k = 24$, 95% CI [-0.22, -0.27]) and in studies without a definition of bullying ($d = -.08, k = 42$, 95% CI [-0.07, -0.09]). Further, younger Black students (age 6–10) reported more peer victimization ($d = -.19, k = 8$, 95% CI [-0.13, -0.24]) than White adolescents (11-years-old

and older) or in studies with crossing age ranges. Black students also reported higher peer victimization than White students in studies using questionnaires ($d = -.09, k = 39$, 95% CI [-0.05, -0.12]) and peer nominations ($d = -.21, k = 4$, 95% CI [-0.10, -0.33]). White students reported more peer victimization in studies using Olweus' Bully/Victim Questionnaire ($d = .30, k = 4$, 95% CI [0.60, 0.02]). Orwin's failsafe N was estimated at 3,585 studies.

White-Hispanic. Similar to the White-Black group comparison, results indicated a small but significant effect size under the random-effects model ($d = .08, k = 60$, 95% CI [0.04, 0.12]) and the presence of heterogeneity ($Q(59) = 588.17, p < .05$). Examination of publication status indicated the presence of publication bias ($Q(1) = 27.20, p < .05$). Moderator analyses revealed that, controlling for all other moderators, White participants reported more peer victimization than Hispanics in adolescence than other age groups ($d = .07, k = 40$, 95% CI [0.13, 0.00]). Hispanic students reported more peer victimization toward earlier publication years (i.e., 2000) ($d = -.01$, 95% CI [-0.01, -0.02]) whereas White students reported more victimization toward 2011 ($d = .08$, 95% CI [0.08, 0.07]). White students reported more peer victimization in published studies ($d = .07, k = 37$, 95% CI [0.19, 0.04]), in studies with ($d = .15, k = 18$, 95% CI [0.19, 0.11]) and without ($d = .05, k = 47$, 95% CI [0.05, 0.04]) a definition of bullying, and in studies assessing peer victimization via questionnaires ($d = .07, k = 43$, 95% CI [0.10, 0.04]), Olweus' Bully/Victim Questionnaire ($d = .21, k = 4$, 95% CI [0.34, 0.06]), and peer nominations ($d = .31, k = 4$, 95% CI [0.43, 0.20]). Orwin's failsafe N was estimated at 442 studies.

White-Asian. The Asian group included participants of East-, South-, and South-East-Asian origin. Inspection of studies indicated that the majority of studies in North America grouped these ethnicities together in the results section, as is often done in UK studies. Results indicated small effect sizes ($d = .05, k = 50$, 95% CI [0.00, 0.10] $Q(49) = 302.56, p < .05$) and the absence of publication bias ($Q(1) = 0.12, p > .05$). Overall, analyses indicated that, controlling for all other moderators, White participants experienced more peer victimization than Asian participants according to peer nominations ($d = .88, k = 5$, 95% CI [1.60, 0.16]), in adolescence compared to other age groups ($d = .09, k = 36$, 95% CI [0.16, 0.03]), and in studies with and without a definition of bullying (Table I). Orwin's failsafe N was estimated at 3,395 studies.

White-North American Aboriginal. We found no statistically significant effect size for the White-Aboriginal group comparison according to the random effects model ($d = -.04, k = 19$, 95% CI [-0.14, 0.06]).

Heterogeneity was estimated at ($Q(18)=117.19$, $p<.05$) and publication bias was present ($Q(1)=5.09$, $p<.05$). Moderator analyses indicated that, controlling for all other moderators, Aboriginal students reported higher peer victimization than White students in studies without a definition of bullying ($d=-.10$, $k=11$, 95% CI $[-0.06, -0.13]$), and in the US compared to Canada ($d=-.23$, $k=16$, 95% CI $[-0.01, -0.45]$). Follow-up analysis on publication status did not indicate a statistically significant moderating effect. Orwin's failsafe N was estimated at 1,451 studies.

White–Biracial. Twelve studies provided statistics that allowed for a White–Biracial group comparison. Results indicated a small effect size under the random effects models ($d=-0.05$, $k=12$, 95% CI $[-0.17, 0.05]$). Heterogeneity was present ($Q(9)=23.42$, $p<.01$). Controlling for all other moderators, Biracial students reported more peer victimization in studies using one-to-four items ($Q(1)=7.30$, $d=-.98$, $k=2$, 95% CI $[-1.03, -1.95]$). Orwin's failsafe N was estimated at 292 studies.

We further conducted similar analyses for White and Arabic, Persian, Former-Yugoslavian, and Turkish ethnic groups. Results indicated small effect sizes. Given that the number of studies was small ($k<9$) follow-up results are not presented.

Ethnic peer victimization. Nine studies provided results on ethnic peer victimization for the ethnic majority and an ethnic minority group. Results indicated that ethnic minority students reported more ethnic peer victimization than ethnic majorities ($d=-.34$, $k=9$, 95% CI $[-0.58, -0.10]$, $Q(1)=69.08$, $p<.05$). Due to more predictors than cases, moderator analyses were

performed separately. Results indicated that ethnic minorities experienced more ethnic peer victimization across all levels of all moderators (Table II).

DISCUSSION

We examined differences peer victimization between ethnic majority and minority groups by conducting two meta-analyses on research findings with ethnically diverse samples. Our findings suggest that ethnicity alone, assessed as a demographic variable, was not strongly associated with peer victimization. The overall effect sizes obtained in both analyses were small and non-significant; however, when methodological variables were examined, results indicated differences in peer victimization between White and Black, Hispanic, Asian, Aboriginal, and Biracial students.

In the first meta-analysis on the ethnic majority–minority group comparison, the effect sizes obtained were small indicating that being an ethnic minority was not associated with higher peer victimization than being an ethnic majority. Moderator analyses revealed that ethnic minority students reported more peer victimization than ethnic majorities in unpublished studies, whereas ethnic majority youth reported more peer victimization than minorities in the US than other countries. This suggests that there might be a tendency to not report significant results in published studies, especially if ethnicity is not the primary focus of the studies. Regarding the higher prevalence of peer victimization among ethnic majorities in the US, the results revealed a small effect size, suggesting that ethnic minorities are not victimized more than ethnic majorities. It is possible that the increased ethnic diversity in

TABLE II. Moderator Analysis Results for Ethnic Peer Victimization

	Q_{bet} , (df)	k	d	95% CI
Ethnic peer victimization (Q_{df} , F^2 , τ^2)	69.08 (7)	88.42	0.10	
Random-effects		9	-.34	-0.58, -0.10
Moderators				
Publication type	6.37 (1), $p<.01$			
Peer-reviewed		5	-.44	-0.56, -0.32
Theses/Dissertations		4	-.27	-0.32, -0.22
Definition	8.69 (1), $p<.01$			
Yes		3	-.26	-0.31, -0.21
No		6	-.45	-0.56, -0.34
Measure	34.55 (2), $p<.05$			
Questionnaire		4	-.07	-0.25, -0.10
Olweus		2	-.36	-0.31, -0.20
One-to-four items		3	-.65	-0.79, -0.52
Country	38.17 (2), $p<.05$			
Canada		4	-.58	-0.74, -0.42
US		3	-.23	-0.28, -0.17
Other European		2	-.68	-0.85, -0.51

the US and changing demographics, with large proportions of non-White students in the schools, may result in the national ethnic majority being a numerical minority and thus experiencing more peer victimization. Research on the numerical proportions of ethnic groups indicates that White students, who are numerically underrepresented in a school setting, are more likely to be nominated as victims than Latino or African American peers (e.g., Graham & Juvonen, 2002). In addition to changing demographics, definitions and perceptions of bullying in schools in particular may change over time as well; however, we examined the presence or absence of a bullying definition only as a moderator variable.

In the multiple-group meta-analysis, which allowed for specific ethnic group comparisons, we found few differences between White and Black, Hispanic, Asian, Aboriginal, and Biracial youth in the overall effect size estimates. Follow-up moderator analyses revealed several significant effects based on the methodologies used across ethnic groups, particularly for the White–Black and White–Hispanic comparisons. However, the analyses were based on a small number of studies per moderator level and results should be interpreted with caution. Black students reported more peer victimization than White students in childhood, in unpublished studies, and studies without a definition of bullying, and in studies using peer nominations and questionnaires. White students reported more peer victimization than Black students in studies using the Olweus' Bully/Victim Questionnaire. Although we cannot infer the race of the perpetrator from the meta-analyses, as it was not assessed in primary studies, the results are consistent with findings on peer nominations and peer racial discrimination among Black youth, which suggest that they are faced with more prejudice and negative behavior by peers, particularly in younger ages. For example, Aboud et al. (2003) reported that White children with higher prejudice levels had fewer-cross race friendships than students with lower prejudice levels, and tended to exclude cross-race classmates when they held prejudicial beliefs. Other findings indicate that African American students are more disliked by other-ethnicity peers, particularly when they are the numerical racial minority in the classroom (Wilson & Rodkin, 2011). In addition, when students segregate their peer groups and prefer same-ethnicity peers, they are more likely to dislike and not befriend peers from an ethnic minority group. Research on peer racial discrimination with African American samples indicates that they experience particularly high discriminatory behavior (Greene, Way, & Pahl, 2006), such as name-calling and exclusion, which are similar to those measured in peer victimization studies. Such preferences in in-group/out-

group ethnic peer relations are also consistent with the higher levels of prejudice observed in childhood (Raabe & Beelman, 2011), and may be associated with more peer victimization among ethnic minorities. Children engage in bullying behavior and target characteristics that are different from the norm, such as physical appearance and lack of social skills (e.g., Cook, Williams, Guerra, Kim, & Sadek, 2010). Findings on bullying and ethnic discrimination among ethnic minority youth show that they are victimized by peers because of their appearance or stereotypes about their culture (Eslea & Mukhtar, 2000; Liang et al., 2007). Therefore, the constructs of racial discrimination and peer victimization appear to overlap in the ways researchers measure this behavior in ethnic minorities (i.e., repeated violence by racial discrimination), potentially resulting in an underestimation of school peer victimization. In addition, children may be victimized because of more pronounced characteristics that stand out from the norm. For example, von Grünigen, Perren, Nägale, and Alsaker (2010) found that ethnic minority children with foreign mothers experienced more victimization than those with Swiss mothers, and language competence was a significant risk factor for peer victimization. Similarly, Yu, Huang, Schwalberg, Overpeck, and Kogan (2003) found that ethnic minority young children who did not speak English at home experienced more peer victimization than those who did. It seems that considering the two concepts simultaneously may provide a more complete assessment of ethnic peer victimization.

In contrast to the White–Black group comparison in the analysis, White students reported more peer victimization than Hispanic students in unpublished sources, in studies with and without a definition of bullying, and in studies using peer nominations, Olweus' measure and questionnaires. The results indicated a tendency toward higher victimization rates among a national ethnic majority group. The Hispanic population in the US has increased fourfold in the last decade, and is currently the second largest ethnic group after European Americans (Martin & Fogel, 2006). Although it was not possible to examine the proportion of White and Hispanic students in the schools, it may be that American White students are becoming the minority group in areas with large Hispanic populations, contributing to a higher numerical imbalance between ethnic groups and, thus, higher inter-ethnic peer aggression. The moderator analysis indicated that White students reported more peer victimization than Hispanics toward 2011, which may be associated with the increase in the Hispanic population. According to the Pew Research Centre (2014), Latinos have surpassed Whites as the largest ethnic group in California and New Mexico (Lopez, 2014). Hispanic

students also experienced more peer victimization in childhood, although the effect size was very small, which is similar to the White–Black comparison, and may be explained by the higher prevalence of peer prejudice in younger ages.

We did not find that Asian students experienced more peer victimization than White students across all moderators. Intra-ethnic bullying and peer victimization are becoming more prevalent in multiethnic schools, and findings pertaining to ethnic minority students in Europe indicate that they are often bullied by other ethnic minorities more than by White peers (Eslea & Mukhtar, 2000; Tolsma, van Deurzen, Stark, & Veenstra, 2013). In addition, the Asian sample included in the meta-analysis was heterogeneous due to the collapsed groups either in the original studies, or for the purposes of the current analysis, and thus, results may mask peer victimization experiences across specific ethnicities (i.e., East-Asian vs. South-Asian).

North American Aboriginal students reported more peer victimization than White students in studies without a definition of bullying and in the US. The findings on North American Aboriginal youths' peer victimization are surprising considering the unfavorable status of Aboriginals and the issues faced by both adults and youth across settings. Aboriginals are more likely than non-Aboriginals to be involved in violence incidents, to live in poverty, abuse more substances, and to have high rates of physical and mental health problems (Kaspar, 2013; Perrault, 2011). Although individual studies show that they experience more bullying than other ethnic groups (e.g., Carlyle & Steinman, 2007) this pattern was not supported in the present meta-analysis, suggesting that within the school context, Aboriginal students who attend multicultural schools are no more likely to experience peer victimization than other ethnic groups. Nevertheless, effect sizes with non-significant heterogeneity indicated that Aboriginals reported more peer victimization than White students.

Lastly, Biracial students experienced more peer victimization than White students in studies using one-to-four items to assess peer victimization, however, the results are based on a small number of studies. Although research on Biracial students is scarcer than other ethnic groups, it seems that they tend to report more violence, substance abuse, and delinquent behavior compared to monoracial youth (e.g., Choi, He, Harrenkhol, Catalano, & Toubourou, 2012; Jackson & LeCroy, 2009). Thus, at-risk Biracial youth may be more likely to experience victimization and be involved in negative peer relationships.

Overall, the results of the meta-analyses showed weak associations between ethnicity and peer victimization, which may be due to general decrease in inter-ethnic

aggression and bullying with increased contact between groups, in addition to limitations in the study of ethnic differences in the literature. Although prejudicial attitudes and beliefs play a role in ethnic teasing, in-group favoritism and out-group bias do not always lead to peer aggression, and the small effect sizes obtained throughout the meta-analyses suggest that ethnicity, unless studied specifically, becomes less relevant to general peer victimization. Prejudice decreases with increased intergroup contact (Pettigrew & Tropp, 2006), and cross-ethnic friendships are associated with more positive out-group evaluations among ethnic majority children (Feddes, Noack, & Rutland, 2009). Other findings suggest that factors such as empathy, protective friendships, and strong social networks are associated with less intergroup prejudice and peer victimization among minority students (Stefanek, Strohmeier, van de Schoot, & Spiel, 2011). It appears that the prevalence of peer victimization among ethnic majority versus minority youth has been more successfully captured in studies using nested models by looking at the proportion of ethnic majority–minority youth in a school setting. Research on school ethnic composition suggests that a numerical imbalance between ethnic groups influences the prevalence of peer victimization in that the numerical ethnic minority groups experience more peer victimization than the numerical ethnic majorities (e.g., Graham, 2006; Graham & Juvonen, 2002). Aggressive behavior is more prevalent in settings where there is power imbalance or during transitions periods (Pellegrini & Long, 2002; Pepler, Jiang, Craig, & Connolly, 2008), when students try to establish a dominant position among their peers. Sidanius and Pratto (1999) and Padilla (2008) have suggested that group conflict (e.g., racism, ethnocentrism) is a manifestation of people's tendency to form group-based social hierarchies, and to maintain or achieve a higher position of dominance, and thus, peer aggression may act as a means of establishing a higher status in the school setting but may not necessarily be stable over time (see Vaillancourt, Hymel, & McDougall, 2003).

The lack of statistically significant differences between ethnic groups does not conclusively suggest that ethnic minorities are more or less victimized than ethnic majorities. An important limitation in the literature pertains to the assessment of ethnicity as a demographic variable without in-depth study of ethnic identity, generation level or acculturation in peer victimization studies, as well as the lack of assessment of the race of the perpetrator. Nevertheless, the moderator analyses suggest that the measures used in assessing peer victimization, particularly questionnaires and peer nominations, capture differences in reported peer victimization between ethnic groups to some extent.

Questionnaires, including Olweus' Bully/Victim Questionnaire, peer nominations and presence/absence of a bullying definition yielded the most consistent differences in peer victimization in most ethnic group comparisons included in the analysis. Self-reports are accurate in assessing peer victimization (Soldberg & Olweus, 2003), as it is more likely that indirect and relational forms of aggression are not always observable to external observers (i.e., peers). Peer nominations provide an objective estimate of peer victimization, and as suggested from our results, ethnic groups' victimization is also captured by peer ratings. However, the lack of precision in the content and reference to ethnicity in measures overall may underestimate the prevalence of peer victimization among ethnic minorities. Ethnic teasing and racist victimization do occur in childhood, and these most often take the form name-calling (Verkuyten & Thijs, 2002; Whitney & Smith, 1993). Self-reports or peer nominations on bullying, aggression, and peer victimization do not typically include items on ethnicity and cultural variables as the target of aggressive behavior, and children may be less inclined to report such incidents as repeated peer victimization. In addition, researchers rarely focus on ethnicity and peer victimization together, yet results from the few studies examining ethnic peer victimization indicate that ethnic minority children experience this form more than ethnic majority children, suggesting that when tackling ethnicity as a target of peer aggression students may be more inclined to perceive racist events as victimization. Green, Felix, Sharkey, Furlong, and Kras (2013) suggested that students are more likely to report their peer victimization experiences through measures such as the Olweus' Bully/Victim Questionnaire, which assess different forms of victimization in detail. Hence, measurement and assessment issues may underestimate the prevalence of peer victimization among minorities, and the consideration of cultural aspects and addition of ethnic victimization as part of assessment items may yield different prevalence rates.

Limitations and Implications

In the present meta-analyses, we examined dyadic ethnic group differences in peer victimization between White and non-White youth. Although we explored methodological moderators, we were not able to investigate other variables that have been previously shown to play a role in peer victimization such as sex and socioeconomic status (SES; e.g., Menzer & Torney-Purta, 2012). The majority of the studies included in both analyses did not provide a breakdown of sex or SES by ethnicity in order to examine these factors as moderators. Children's cognitive development regarding prejudice and ethnicity is not as complex in younger ages as it is in

adolescence. Therefore, covert forms of peer victimization because of one's ethnicity might not be as prevalent at a developmental stage when overt bullying behavior in general is at its peak. Finally, although peer aggression often occurs within ethnic groups or between ethnic minorities without the involvement of an ethnic majority (e.g., Eslea & Mukhtar, 2000), examining intra-ethnic peer victimization was beyond the scope of the present meta-analyses.

Our findings are also limited by the availability of studies included in the analyses. Because demographic information is almost always obtained in quantitative research, there is a potentially large amount of unpublished findings that were not accessible for inclusion. Nevertheless, the number of studies included in the meta-analysis was sufficient to provide preliminary results. In addition, ethnicity was not the primary focus in the majority of the studies included in the meta-analyses, thus, it is possible that the file-drawer problem may not be exacerbated. Most of the effect sizes obtained were not statistically significant, and accordingly, additional unpublished non-significant results would not have likely changed the pattern of results. Further examination of Orwin's failsafe number indicated that, on average, a very large amount of excluded studies would be required to reduce the average effect size to non-statistical significance. The interpretability of the results may also be limited to North American societies, as the majority of the studies were conducted in Canada or the US.

Researchers have examined ethnicity in the area of peer aggression for over 20 years, yet the present meta-analyses are the first to systematically address differences in peer victimization between ethnic majority and minority groups. In addition to including ethnic majority-minority groups, in which minorities are collapsed into one category, we were able to examine separately the dominant ethnic minority groups in North America and Europe and to provide an overall description of peer victimization findings per group. Furthermore, the moderator analyses demonstrated that different methodologies (i.e., measures and definition) can account for differences between ethnic groups, suggesting that methodological aspects provide unique information per ethnic group which can be used as guidelines in future research.

The small effect sizes obtained in both analyses indicate that ethnic groups may or may not differ in their peer victimization experiences. Additional factors, such as ethnic identification, acculturation, and societal context and attitudes, potentially play a bigger role in inter-ethnic peer aggression than ethnicity alone. In addition, ethnic diversity which has been shown to be associated with peer victimization between ethnic

groups was not examined in the current meta-analyses as few studies provided relevant information measured by using different indices. This is a limitation, as we expect that lower proportions of ethnic minorities in schools to be associated with higher peer victimization. Finally, it is important to acknowledge that ethnicity of the perpetrator was not assessed in the primary studies, thus, although the incidence of peer victimization may vary across ethnic groups, it is not possible to ascertain whether it was ethnic majorities who targeted ethnic minorities or if ethnic minorities were victimized by peers of the same ethnicity. Our results suggest that ethnicity as a demographic variable is not sufficient to draw conclusion on inter- or intra-ethnic peer victimization. The inclusion of additional variables that are pertinent to ethnic identity, acculturation and immigration status may be more relevant in inter-ethnic peer aggression.

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Chapter 3 – Study 2

Ethnic Group Differences in Bullying Perpetration: A Meta-Analysis.

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Abstract

Research suggests that several characteristics are associated with being a perpetrator of bullying, ranging from experiencing mental health problems to having good social skills, being popular, and socially competent. Demographic characteristics, such as socioeconomic status and age, have also been investigated, yet, ethnicity has been examined less frequently and results are inconclusive regarding ethnic minority students' involvement in bullying perpetration. In the present meta-analysis we collected findings on bullying perpetration among ethnic majority and minority groups in order to examine whether ethnicity as a demographic characteristic was associated with higher prevalence of bullying perpetration among White or non-White youth. Thirty-eight studies with a sample of 353,808 students (6-18 years) were included in the meta-analysis. Results indicated that Black ($d=.11$) and Aboriginal ($d=.19$) students perpetrated more bullying than White students, but effect sizes across all comparisons were small and non-significant. Methodological moderator analyses (e.g., measures, definition present) indicated several differences in reported bullying by ethnicity. Our findings suggest that ethnicity as a demographic variable is not strongly associated with bullying behaviour, yet the measurement of bullying across groups may play a role in the reporting of bullying. Additional factors that may account for ethnic differences are discussed.

A Meta-Analysis on Bullying Perpetration across Ethnic Groups

Bullying has received considerable research and media attention, particularly because of the increase in incidents of cyberbullying and suicide in North America and Europe. In large-scale studies, bullying perpetration has been estimated as high as 53.6% in the US (Wang, Iannotti, & Nansel, 2009), 31.7% in Canada (Vaillancour et al., 2010), and 45.2% in Europe (Craig et al., 2009). Previous meta-analytic research has focused on children who are victims of bullying or aggressive behaviour and the correlates and consequences of peer victimization (e.g., Card & Hodges, 2008; Gini & Pozzoli, 2013; Hawker & Boulton, 2000; Reintjes, Kampuis, Prinzie, & Telch, 2010; Tippet & Wolke, 2014; Van Geel, Vedder, & Tanilon, 2014). Findings do suggest that several different characteristics are associated with being a perpetrator of bullying, ranging from experiencing mental health problems to having good social skills, being popular and socially competent (Garandeau & Cillessen, 2006). Demographic characteristics, such as socioeconomic status and age (Cook, Williams, Guerra, Kim, & Sadek, 2010; Tippet & Wolke, 2014) have also been investigated in the bullying literature; however, ethnicity has been examined less frequently. The role of ethnicity in bullying has been assessed either with single ethnic samples or comparisons between multiple groups, yet results are inconclusive regarding the incidence of bullying between ethnic groups (Barbosa et al., 2009; Seals & Young, 2003; Wang et al., 2009). In the present meta-analysis we collected findings on bullying perpetration (referred to as bullying henceforward) among ethnic majority and minority groups in order to examine whether ethnicity as a demographic characteristic is associated with higher prevalence of bullying between White and non-White youth.

Definition of Bullying

Researchers define bullying as repetitive and intentional actions of aggression associated with an imbalance of power between the perpetrator(s) and targeted child (Olweus, 1999). Bullying is considered as a subtype of aggressive behaviour that is distinguished from general peer aggression because of the specific characteristics of power imbalance and repetition (e.g., Roland & Idsøe, 2001). Earlier research suggested that children who bully were rejected by peers, had conduct or behavioural problems, and experienced poor mental health symptoms such as depression and anger (e.g., Austin & Joseph, 1996; Bosworth, Espelage, & Simon, 1999). Children who bully others have also been found to have poorer communication with parents and experience lower emotional warmth, to come from a lower socioeconomic status, and to be influenced by negative peer relationships or deviant peers (Espelage, Bosworth, & Simon, 2000; Haynie, 2001; Veenstra et al., 2005). In addition, they tend to exhibit other forms of aggression such as sexual or dating aggression (Pepler et al., 2006). Although some bullies do fit these profiles, other studies indicate that bullies are not necessarily marginalized youth. They can be smart, popular, athletic, and highly socially competent (Vaillancourt, Hymel, & McDougall, 2003), and can have good theory of mind, social and cognitive skills (e.g., Sutton, Smith, & Sweetnam, 1999). Youth who bully others tend to belong to social clusters or groups (Salmivalli, Huttunen, & Lagerspetz, 1997) and although they may hold a high social status they are not well-liked by peers (Farmer et al., 2010; Vaillancourt et al., 2003). Yet, little is known about the ethnicity of bullying perpetrators and whether ethnic group membership is a salient characteristic in bullying behaviour between groups.

Peer Aggression and Ethnicity

Peer aggression research with multiethnic samples has revealed varying results on the association between ethnicity and perpetration. In North America, where Black, Hispanic and Asian² youth are the most frequently studied ethnic minority groups, African American children are rated by peers as more overtly and relationally aggressive than European American children (David & Kistner, 2000; Putallaz et al., 2007). In comparison to other ethnic groups, and specifically Hispanic/Latino or Asian youth, African Americans are more likely to be considered as tough, aggressive, or bullies, and to be involved in violence (Clubb, 2001; Juvonen, Graham, & Schuster, 2003; Reingle, Maldonado-Molina, Jennings, & Komro, 2012; Rodkin, Farmer, Pearl, & Van Acker, 2006). Maldonado-Molina, Jennings, and Komro (2010) found that Black youth were more likely to belong to a chronic aggressive group compared to Hispanic youth. However, White students have also been found to be more aggressive than their African American and Asian peers (Barbosa et al., 2009), suggesting that no one ethnic group is consistently more likely to engage in aggressive behaviour. Asian American youth seem to be the least aggressive (e.g., Kawabata & Crick, 2013), although some findings indicate no differences in bullying between ethnic groups (Mouittapa, Valente, Gallaher, Rohbarh, & Unger, 2004; Seals & Young, 2003).

Bullying and Ethnicity

The study of ethnicity in *bullying* has received more research attention in the last decade, and although there are fewer studies compared to non-ethnicity related bullying and peer victimization research, findings indicate different prevalence rates across ethnic groups. For example, non-White students have been found to engage in more bullying behaviour

² We use ethnic groups terms (e.g., Asian, European-American) as they appear in the original sources.

than White students (e.g., Bradshaw, Sawyer, and O'Brennan, 2009; Holt & Espelage, 2007), Hispanic youth have been found to physically bully others more than White students (Wang et al., 2009), and African American elementary school students have been shown to be more likely to bully others compared to other ethnic groups (Glew, 2005; Wang et al., 2009). In addition, Larochette, Murphy, and Craig (2010) reported that African Canadian students were more likely to engage in racial bullying, a form that targets one's cultural background. The higher perpetration by African Americans seems to be more pronounced in earlier grades. Carlyle and Steinman (2007) found that Black youth were more likely than other youth to bully others, but this effect did not remain significant in 12th grade. In contrast, Barbosa et al. (2009) found that African American and Asian adolescents were less likely than their White peers to perpetrate bullying, and Nansel, Overpeck, Pilla, Ruan, Simons-Morton and Scheidt (2001) reported that Hispanic youth engaged in slightly more bullying behaviour than Black and White youth.

In Europe, researchers have found varying rates on bullying between ethnic majority and minority groups. Tippet, Wolke, and Platt (2013) found that Bangladeshi and Caribbean youth living in the UK were more likely to be bullies compared to other ethnic groups, and Boulton's (1995) findings, also in the UK, showed that White girls were more likely to be nominated as bullies than Asian girls. In addition, Vervoort, Scholte, and Overbeek (2010) reported that ethnic minority students were more likely to bully others than ethnic majority students in Dutch schools, and similar findings were found by Fandrem, Strohmeier, and Roland (2009) in a Norwegian sample of native Norwegian and immigrant adolescents. In contrast, Strohmeier and colleagues found that native Austrian students scored higher on bullying perpetration than Former Yugoslavian and Turkish students (Strohmeier & Spiel,

2003; Strohmeier, Spiel, & Gradinger, 2008). Considering the diverse findings on bullying and ethnicity, our goal was to examine whether directional group differences exist between White and non-White youth in order to ascertain the importance of ethnic group membership in bullying perpetration.

Theoretical Bases for Inter-Ethnic Bullying

The ethnic differences described suggest that inter-ethnic bullying is a complex phenomenon and no one group is consistently more aggressive than others. This variability in findings suggests that other factors may account for ethnic group differences in bullying. Ethnic prejudice and racial attitudes develop early in childhood (Aboud, 1988), and although these do not necessarily lead to bullying, perceived threat and attitudes toward ethnic out-groups may be associated with inter-ethnic conflict. According to the Social Identity Theory (SIT; Tajfel, 1970), people derive a sense of social identity and belongingness from their in-group, and research on the Social Identity Developmental Theory supports the tenets of SIT in children as well (Nesdale, Durkin, Maas, & Griffiths, 2004). Nesdale and colleagues (2004) suggest that ethnic prejudice in children emerges when they identify with an in-group that may hold prejudicial attitudes and when a threat is perceived to the group (Nesdale et al., 2004). Research on peer processes and in-group/out-group attitudes indicates that children tend to like the out-group less when the in-group holds a norm of exclusion, but when the school norms endorse inclusion, perceptions of out-group members become more positive (Nesdale & Lawson, 2011). Additionally, ethnic majority children tend to like less and to hold more negative views of ethnic minority out-groups (Nesdale, Maass, Durkin, & Griffiths, 2005; Verkuyten, 2002), but ethnic minority students do not necessarily evaluate ethnic majority out-groups negatively (Griffiths & Nesdale, 2006). In regards to bullying,

Duffy and Nesdale (2008) found that children were more likely to engage in bullying behaviour when the norms of the group favoured bullying. In addition, Ojala and Nesdale (2004) suggested that children were more likely to endorse bullying when the aggressive behaviour was targeted at a member of an out-group. Taken together, a threat perception to one's group and holding a positive view of bullying behaviour appear to be associated with more bullying, which may potentially extend to ethnic intergroup conflicts.

The numerical proportions of ethnic majority and minority youth in a school, or the percentage of ethnic diversity, appear to also influence inter-ethnic peer aggression. Research on bullying and peer victimization between ethnic groups suggests that the ethnic composition of schools plays a critical role in peer inter-ethnic relationships such that being the numerical ethnic majority in a school is associated with higher perpetration of bullying whereas being the numerical ethnic minority is associated with more peer victimization. Students who belong to the proportionately majority ethnic group were perceived by peers as more aggressive even if they were members of a national ethnic or visible minority (i.e., African American, Latino; Graham & Juvonen, 2002). In contrast, Hanish and Guerra (2000) reported that White children attending schools with a lower proportion of same-ethnicity students were at greater risk of being bullied than White children attending schools with a higher proportion of White students. Graham and Juvonen (2002) also found that Latino and African American children received more peer nominations as aggressors than as victims in contexts where they were the numerical majority, whereas the numerical minority groups (e.g., White) received more nominations as victims. Gregory, Cornell, Fan, Sheras, Shih, and Huang (2010) found that a lower proportion of minority students in a school setting was associated with higher bullying perpetration. In Canada, Larochette and

colleagues (2010) found that ethnic diversity was not associated with bullying perpetration, and in Europe, Vervoort and colleagues (2010) did not find a significant association between the proportion of ethnic minorities and bullying. These findings, however, are not sufficient to draw conclusions on bullying perpetration and ethnic proportions. The ethnic composition hypothesis has been primarily supported in peer victimization research (e.g., Agirdag, Demanet, Van Houtte, & Van Avermaet, 2011; Graham, 2006; Hanish & Guerra, 2000); however, in regards to bullying perpetration, findings are mixed as some studies indicate that ethnic diversity is not significantly associated with bullying (e.g., Larochette et al., 2010; Stefanek, Strohmeier, van de Schoot, & Spiel, 2011). Ethnic diversity in schools where no one group holds a numerical proportion appears to act in favour of ethnic minority youth. According to Graham (2006) and Juvonen, Nishina, and Graham (2006), ethnic minority students experienced less peer victimization, vulnerability and loneliness, and higher self-worth and safety at school in ethnically diverse schools. Increased contact with other ethnic groups can be a protective factor, considering that intergroup contact decreases prejudice between groups (Pettigrew & Tropp, 2006). In childhood, Crystal, Killen, and Ruck (2008) found that students with more contact with ethnic minorities were more likely to consider racial-based exclusion as wrong compared peers with less contact with ethnic minorities.

Current Study

In the present meta-analysis we examined differences in the prevalence of bullying by assessing ethnic group membership as a demographic variable. We included ethnic majority-minority group comparisons, as well as White and Black, Hispanic, Asian, Aboriginal, and Biracial. In addition, we assessed methodological moderators in order to

examine whether bullying differs among groups according to methods used (i.e., year of publication; measure), country, and age. Estimates of bullying rates are often obtained through self-reports or peer-nominations (e.g., Crothers & Levinson, 2004), which may yield different prevalence rates. Findings indicate low agreement rates between self- and peer-reports on bullying involvement (e.g., Branson & Cornell, 2009; Cornell & Brockenbrough, 2004), while parent- or teacher- reports yield low agreement with self-reports as well (e.g., Rønning, Sourander, Kumpulainen, Tamminen, Niemelä, et al., 2009; Totura, Green, Karver, & Gesten, 2009). In addition to reporter type, the different measures used in the study of bullying may also yield different prevalence rates. For example, participants are presented with a definition of bullying followed either by a single item (i.e., Nansel et al., 2001) or a questionnaire with several types of aggressive behaviour (e.g., Solberg & Olweus, 2003), which may also reveal different rates between ethnic majority and minority children. We focused on bullying perpetration by including studies with a definition of bullying in order to differentiate bullying perpetration from general peer aggression. In some studies, however, researchers assessed bullying without the presence of a definition but only by referring to aggressive behaviour as bullying (e.g., Carlyle & Steinman, 2007; Glew, 2005), thus, we examined the presence/absence of a bullying definition as a moderator as well. Lastly, we included country, year of publication, and age as potential moderators. Changing demographics across countries with an increase of ethnic minority groups results in higher numbers of ethnic minority students in schools (e.g., National Center for Educational Statistics, 2014), and youths' inter-ethnic peer relationships and bullying behaviour may be influenced by the greater proportion of same- or other-ethnicity peers. In addition, bullying and peer victimization have been consistently found to

be more prevalent among middle school students and during school transitions (Pepler et al., 2006; Xie, Dawes, Wurster, & Shi, 2013), thus we examined whether age differences exist in all ethnic group comparisons in the analyses.

Method

Literature Searches

Studies conducted between 1990-2011 were retrieved from electronic databases (PsycInfo, ERIC, ProQuest Dissertations & Theses, Pubmed, Medline, Google scholar), conferences in the areas of peer relationships, and references from studies considered for inclusion in the meta-analysis. We used search terms that included both peer victimization and bullying perpetration terms in order to ensure the inclusion of studies from different literatures (e.g., “bully*, victim*, relational/physical/verbal/overt/direct/indirect victim*, overt victim*, ethnic* or rac*, peer victim*, and peer harass*). Approximately 10,000 (including duplicates) published and unpublished studies were examined for inclusion. The abstract, method, and results sections were inspected for findings on bullying perpetration by ethnic group.

Selection Criteria

Our goal was to examine group differences in the prevalence of bullying between ethnic majority and minority students, and the ethnic groups included in the analysis were based on self-reported ethnicity as a demographic characteristic. The main selection criteria included were (a) the presence of both a national ethnic majority (i.e., European American) and minority samples (i.e., African American) and (b) explicit reference to “bullying” in the measures and/or a definition of bullying in order to differentiate bullying from studies on peer aggression in general. We included studies that examined school bullying among 6-18

year old students in research conducted between 1990-2011, and excluded studies (a) with special populations (i.e., gifted, maltreated, clinical samples); (b) in which bullying outside of school was assessed; and (c) with insufficient statistical information to calculate effect sizes. Authors were contacted for additional statistical analyses where possible. Studies in which the terms “bullying” or “bullies” were used but did not include a definition of bullying were retained in order to examine whether the results differ from studies with a definition of bullying. All studies were retrieved and coded by the first author. A graduate student doubled-coded 10% of the studies to establish inter-coder agreement. Cohen’s kappa analysis indicated acceptable results within $k=.80-1.00$ (Landis & Koch, 1977), and the percentage of agreement between coders was over 95%.

Sample of Studies

Thirty-eight studies were included in the meta-analysis. Information on demographics and sample characteristics, publication type, measures, and types of bullying were coded (see Appendix B). Ten studies provided results for ethnic majority-minority comparisons, and four included a definition of bullying. Twenty-eight studies were included with results on White and Black, Hispanic, Asian, Aboriginal, and Biracial ethnicity. The final sample size of the meta-analysis was $N=353,808$. For the ethnic majority-minority analysis, 32,272 participants belonged to the ethnic majority group and 3,215 to the ethnic minority group. For the multiple group analysis 173,006 were White, 91,916 were Black, 25,272 were Hispanic, 13,446 were Asian, 1,594 were Aboriginal, and 1,733 were Biracial. Seven studies were conducted in Canada, 19 in the US, two in the UK, seven in other European countries, and two in Other countries (e.g., Australia, Africa). Three studies were entered twice for the moderator analyses because of results reported by different grade/sex.

Moderators. The following methodological variables were included:

presence/absence of a bullying definition, publication type, measure name, age, year of publication, and country. Originally, we coded reporter type as a potential moderator (i.e., self, peer); however, this variable was not included in the moderator analyses because the majority of the studies were based on self- and peer-reports. These studies were identical to the coded moderator variable ‘measurement type’ (peer nominations, self-reports). In addition, we examined whether estimates would differ based on questionnaires (i.e., Safe Schools Survey), Olweus’ Bully/Victim questionnaire, one-to-four items (items assessing bullying) and peer nominations. The Olweus’ Bully/Victim Questionnaire was included as a separate moderator because of Olweus’ pioneer work in the bullying field (Olweus, 1994, 1995, 2013) and in order to examine how this measure compared to other bullying questionnaires. Lastly, we examined whether results differed across countries (Europe, Canada, United States), by published (peer-reviewed) and non-published findings, year of publication, and age (up to grade 5, grade 6-12, studies with crossing grade ranges).

Overview of Analyses

Standardized mean differences were calculated using the software Comprehensive Meta-Analysis v2.2.064 (CMA; Borenstein, Hedges, Higgins, & Rothstein, 2005). Cohen’s *d* was selected as an index of effect size, which is appropriate for continuous or dichotomous outcome measures (Card, 2011). Most findings were reported in means and standard deviations or proportions, which were converted into *d*. Studies with multilevel modeling results were not included in the meta-analysis because of the lack of sufficient statistical information to calculate effect sizes. Heterogeneity across effect sizes was assessed by using the *Q* and I^2 statistical indices (Borenstein, Hedges, Higgins, & Rothstein, 2009), which

assess the relevant weight of each study and the variability in effect sizes, respectively (Higgins, Thompson, Deeks, & Altman, 2003). In the presence of heterogeneity, moderators were examined using a weighted multiple regression analysis in SPSS in order to account for dependency between the methodological variables (Card, 2011). Lastly, publication bias was assessed by comparing studies based on published and unpublished findings, as well as Orwin's failsafe N (Orwin, 1983). Orwin's failsafe N is calculated based on the number of potential studies that would be needed in order to yield a trivial effect size (Borenstein et al., 2009).

Results

Majority-Minority Analysis

Results on ten studies with an ethnic majority and minority group indicated a small effect size $d = -.06$ (95% CI [-0.18, 0.06]) under the random effects model. Variation in effect sizes was estimated at $\tau^2 = 0.02$ and 77% of this variability could be explained by heterogeneity across studies ($I^2 = 77.5\%$). Homogeneity was assessed using the Q index, which was statistically significant, ($Q(9) = 40.00$, $p < .05$). Moderator analyses indicated that, accounting for all other moderators, ethnic minority students reported more bullying perpetration in European countries (i.e., Netherlands; $d = -.10^3$, $k = 3$, 95% CI [-0.01, -0.20]) compared to North America or other countries. No other statistically significant moderator effect was observed, including publication status. Orwin's N was calculated at 819 studies.

Multiple Group Comparisons

The next analysis was performed on multiple ethnic group comparisons, in which White participants were compared to ethnic minority groups (Black, Hispanic, Asian,

³ Direction of effect sizes: A negative effect size indicates higher outcome scores for the ethnic minority groups whereas a positive effect size indicates higher scores for the ethnic majority/White groups.

Aboriginal, and Biracial). Across all studies (including those with comparisons other than the ones described below) results indicated small effect sizes under the random-effects model ($d=-.02$, 95% CI [-0.13, 0.07]). Variation in true effect sizes was $\tau^2=0.05$ and 88% of this variation was because of differences between studies ($I^2=88.65$). Tests of homogeneity across effect sizes indicated a statistically significant Q index, suggesting the presence of heterogeneity ($Q(31)=258.31$, $p<.01$). Next, results are presented for each White-ethnic minority group comparison.

White-Black. Results indicated an effect size of $d=-.11$ under the random effects model ($Q(23)=1956.65$, $p<.05$, 95%CI [-0.28, 0.06]). Moderator analyses were performed for definition, country, age, year of publication and measure type. Results indicated that, accounting for all other moderators, Black students reported more bullying behaviour in studies conducted toward 2001 (i.e., 2001; $d=-.65$, 95% CI [-0.62, -0.67], $Q(1)=46.82$), whereas White students reported more bullying behaviour toward more recently published research (i.e., 2011; $d=.12$, 95% CI [0.13, 0.09]). In addition, Black students reported more bullying perpetration in unpublished studies ($d= -.27$, $k=12$, 95% CI [-0.24, -0.30], $Q(1)=105.97$) and in studies without a definition of bullying ($d=-.08$, $k=12$, 95% CI [-0.07, -0.09], $Q(1)=56.36$). White students reported more bullying in studies with a definition of bullying ($d=.05$, 95% CI [0.08, 0.01]) and in Canada ($d=.17$, $k=7$, 95% CI [0.33, 0.01], $Q(2)=57.69$). Orwin's failsafe N was estimated at 316 studies.

White-Hispanic. The overall effect size was not statistically significant ($d=.02$, $Q(13)=588.47$, $k=14$, 95% CI [-0.21, 0.25]). Moderator analyses indicated that, accounting for all other moderators, White participants reported more bullying perpetration than Hispanic participants in studies conducted more recently (i.e., 2011; $d=.56$, 95% CI [0.59,

0.54], $Q(1)=181.28$) whereas Hispanic students reported more bullying in studies published toward 2001 (i.e., 2001; $d=-1.38$, 95% CI [-1.35, -1.41]). In addition, White students reported more bullying in unpublished studies ($d=.39$, $k=7$, 95% CI [0.45, 0.33], $Q(1)=26.79$), and across all age groups, measures, and presence or absence of a definition (see Table 3 for effect sizes). Orwin's failsafe N was estimated at 3767 studies.

White-Asian. Results on the White-Asian group comparison indicated a small effect size estimate as well ($Q(17)=155.92$, $k=18$, $d=.07$, 95% CI [-0.04, 0.18]). Accounting for all other moderators, White participants reported more bullying toward more recent years of publication ($d=.26$, 95% CI [0.29, 0.23], $Q(1)=19.14$) whereas Asian students reported more bullying in studies conducted toward the early 1990s ($d=-.88$, 95% CI [-0.85, -0.90]). White students reported more bullying across all levels of publication and definition moderators (see Table 3), in studies using questionnaires ($d=.23$, $k=6$, 95% CI [0.31, 0.14], $Q(3)=24.66$) and peer nominations ($d=.57$, $k=2$, 95% CI [1.03, 0.12]). Orwin's failsafe N was estimated at 2402 studies.

White-North American Aboriginal. For the White-Aboriginal group comparison effect size estimate was $d=-.19$ ($Q(10)=82.07$, 95% CI [-0.37, -0.01]). Moderator analyses indicated that, controlling for all other moderators, Aboriginal students reported more bullying in studies without a definition of bullying ($d=-.61$, $k=7$, 95% CI [-0.46, -0.75], $Q(1)=33.94$), and in studies using one-to-four items ($d=-.36$, $k=5$, 95% CI [-0.23, -0.48], $Q(2)=7.09$). Orwin's failsafe N was estimated at 2300 studies, suggesting that a large number of studies that would be needed for the effect size to reach non-significance.

White-Biracial. Four studies provided statistics for a White-Biracial group comparison. Results indicated a small effect size under the random-effects models ($d=-.12$,

95% CI [-0.24, 0.00]). Given the small number of studies, moderator analyses were not performed.

Discussion

In the current meta-analysis, we examined demographic ethnic group differences in bullying perpetration between White and non-White school students. Overall, results indicated small effect sizes across group comparisons; however, moderator analyses revealed significant differences between ethnic majority/White students and ethnic minorities, Black, Hispanic, Asian, and Aboriginal students.

In the ethnic majority-minority group analysis, we found a statistically significant moderating effect of country on bullying. Results indicated that ethnic minority students reported more bullying behaviour than ethnic majorities in European countries such as the Netherlands. Although ethnic minorities do not seem to experience more peer victimization than ethnic majorities in Europe (Vitoroulis & Vaillancourt, 2014), it appears that they do engage in more bullying behaviour. Fandrem and colleagues (2009) suggested that ethnic minority youth bully others in order to affiliate and fit in with peers. Furthermore, classroom ethnic composition is also associated with higher bullying perpetration among ethnic minorities. Vervoort and colleagues (2010) found that ethnic minorities engaged in more bullying only when ethnic composition was taken into account such that they bullied others more in classes with a higher proportion of same-ethnicity peers, although it is not known if bullying is directed toward ethnic majority children only.

In the subsequent analyses, we compared White and Black, Hispanic, Asian, Aboriginal, and Biracial youth on bullying perpetration. Similar to the first analysis, overall effect size estimates were small, but moderator analyses indicated that certain

methodological variables accounted for differences between ethnic groups. For the White-Black comparison, we found that Black students reported more bullying toward 2001, in unpublished studies, and in studies without a definition of bullying. In contrast, White students reported more bullying toward 2011, in studies with a definition, and in Canada.

In the literature, African American youth are rated as more overtly, physically, or relationally aggressive by peers and teachers than other ethnic groups, including White youth (David & Kistner, 2000; Jackson, Barth, Powell, & Lochman, 2006; Xie et al., 2013). Research on cognitive social schemas on race and aggression suggests that African American students are rated as more aggressive than White students because of popular social schemas or stereotypes (Clemans & Graber, 2013), and such perceptions may be associated with increased racial bias and various stereotypes of African Americans or higher delinquent, violent, and gang or neighbourhood crime involvement (e.g., Copping, Rutz-Costes, Rowley, & Wood, 2013; McNulty & Bellair, 2003; Peguero & Williams, 2011; Sampson, Morenoff, & Raudenbusch, 2005). However, the results of the meta-analysis suggest that in the more severe case of bullying it seems that Black students are no more likely than their White peers to bully others. In addition ethnic minority students in the US, and specifically African Americans, Hispanic Americans and Asian Americans are no more likely to be victimized than White youth (Vitoroulis & Vaillancourt, 2014), therefore, ethnicity assessed as a demographic variable does not seem to determine group differences in the bullying and victimization experiences of ethnic minorities. In addition, African Americans perceive higher racial discrimination by teachers or peers (Sanders-Phillips, 2009), thus they may exhibit more externalizing behaviour, such as aggression, in response to others' discrimination and aggressive behaviour. Recent findings from a Canadian

multiethnic sample suggest a developmental trajectory path from peer victimization to later bullying perpetration (Haltigan & Vaillancourt, 2014), and it may be possible that African American students who experience peer victimization or racial discrimination in earlier years become more aggressive in adolescence. It is not clear why White and Black students report different rates of bullying based on different methodologies. Because no information is provided on immigration status or cultural conceptualizations of bullying across groups, we cannot draw conclusions as to why reported rates of bullying vary over time or in the presence of a definition. For instance, ethnic minorities have been found to report higher levels of peer victimization in behaviour-based measures which provide detailed descriptions of bullying behaviour, compared to definition-based measures in which a definition with global items are administered (Sawyer, Bradshaw, & O'Brennan, 2008).

For the White-Hispanic comparison, we found that Hispanic students were more likely to bully others toward earlier years of publication whereas White students were more likely to bully toward later years of publication and across all levels of all other moderators. The Hispanic population in the US has grown in the last decade, and the enrollment of Hispanic students in schools has increased by 5% while the proportion of White students' enrollment has decreased by 12% (National Center of Educational Statistics, 2014). Over the last decade, the Hispanic population has increased by 43% and it accounts for more than half of the US population growth (US Census Bureau, 2010). Although an increase in the Hispanic population would be expected to be associated with more bullying behaviour considering the higher representation of same-ethnicity peers, it seems that White students report higher involvement in bullying across all methodologies used in research. In a recent meta-analysis on peer victimization and ethnicity, Hispanic students were found to

experience less victimization than White students (Vitoroulis & Vaillancourt, 2014), thus it may be that Hispanic students in general are not as involved in bullying as other ethnic groups. In addition, approximately 24% of youth under 18 years are of Hispanic origin (US Census Bureau, 2010), and with the changing demographics, it is possible that a large proportion of Hispanic students in schools are recent immigrants or born to first generation immigrant parents in the US. Thus, difficulties relevant to immigration may be associated with peer victimization or bullying. For example, Peguero (2008) reported that although first generation Hispanic students reported less peer victimization compared to second- and third-generation Hispanics, they felt more unsafe in school and experienced more peer victimization as non-native English speaking students.

The language barrier may also be associated with differences in the understanding of bullying questions in research, as well as with different perceptions of what constitutes bullying. In a cross-country comparison Smith, Cowie, Olafsson, and Liefhoghe (2002) found that the meaning of bullying differed across countries, and the endorsement of the terms “bullying” or “harassment” was lower in non-English speaking countries compared to England. In contrast, “social exclusion” was more likely to be endorsed by non-English speaking countries. Similarly, in a study with parents across countries, Smorti, Manensini, and Smith (2003) found that Spanish parents were less inclusive of various bullying behaviour, and the Spanish term for “bullying” had lower inclusiveness of severe aggressive behaviour (i.e., fighting, physical/verbal aggression) but more related to exclusion. Thus, for immigrant Hispanics, as well as members of other ethnic groups, cultural differences in the perception of bullying may result in under-reported involvement.

White students reported more bullying perpetration than Asian students across most moderator analyses. Asian children have been shown to be generally less aggressive than other groups (e.g., Kawabata & Crick, 2013), but this is not particularly surprising considering that the norms and values of Asian cultures discourage expressions of emotions and misconduct behaviour that disrupt social harmony and show disrespect (e.g., Chen & French, 2008). Asian American students, particularly of Chinese descent, are generally stereotyped as a model minority because of their higher academic achievement and ability compared to White students (Goyette & Xie, 1999; Wong & Haglin, 2006), but they often experience more peer discrimination than other ethnic minorities because of physical characteristics and language-barriers (Fisher et al., 2000; Qin, Way, & Rana, 2008). In addition, Asian American youth in general are less involved in violent and delinquent behaviour compared to other groups (Grunbaum, Lowry, Kann, & Pateman, 2000), but they are more likely to exhibit high risk behaviour as they assimilate more to the mainstream society (Smokowski, David-Fenton, & Stroupe, 2009). Furthermore, inter-ethnic bullying appears to be prevalent among Asian groups (Boulton, 1995; Eslea & Mukhtar, 2000), and bullying behaviour does not necessarily occur between Asians and the ethnic majority.

Lastly, Aboriginal students reported more bullying perpetration in studies without a definition of bullying and in studies using one-to-four items to assess bullying behaviour. Although, similar to the other ethnic group comparisons, we cannot ascertain why they report more bullying based on these methodological variables, it is evident in the literature that Aboriginal youth are overrepresented in justice system with higher incarceration rates, substance and drug abuse, school drop-out and lower academic achievement, and are at high risk to live in poverty (Beavon & White, 2007; Calverley, Cotter, & Halla, 2010; Totten,

2009). In addition, recent evidence indicates that bullying among Aboriginal students is associated with perceived discrimination, anger and poorer communication with parents (Melander, Hartshorn, & Whitbeck, 2013). Thus, their involvement in bullying may be associated with the same factors as other ethnic minority youth (i.e., skin colour, immigration status) as well as be a consequence of more disadvantaged psychosocial conditions compared to White students.

Although we assessed measurement, year of publication, age and country effects, we did not examine other factors that have been consistently shown to be associated with bullying. Bullying is associated with various factors across ethnic groups, and ethnicity alone is not necessarily a risk factor for higher involvement. For example, for African American youth, socioeconomic status (Peskin, Tortolero, & Markham, 2006), low school success (Lovegrove, Henry, & Slater, 2012), and general violence and delinquency (e.g., Fitzpatrick, Dulin, & Pico, 2007) are strongly associated with bullying. Parenting behaviour, and particularly psychological control and low supervision, also seem to be important in explaining African American and Hispanic youths' aggressive behaviour. In addition, alcohol use in the neighbourhood, mental health symptoms and fighting are significant predictors of aggressive behaviour (Reingle et al., 2012). It has also been suggested that the racial socialization of African American youth plays a protective role in peer self-esteem and a stronger ethnic identity is associated with lower aggression (DeGruy, Kjellstrand, Briggs, & Brennan, 2011; McMahon & Watts, 2002). Among Hispanic American youth, factors such as poverty, low school connectedness, peer substance abuse, family functioning and parental involvement (Dinh, Roosa, Tein, & Lopez, 2002) appear to be particularly important in aggressive and delinquent behaviour, and gang involvement. In addition,

Loukas, Paulos, and Robinson (2005) found that maternal control was associated with aggression in European-American and Latino boys, and Reingle and colleagues (2012) reported that alcohol abuse, negative peer influences, fighting behaviour and low academic achievement were significant predictors of aggression among Hispanic youth. Nevertheless, differences in bullying do exist among ethnic minorities, and researchers should examine additional factors such as acculturation, immigrant status, language barriers, and race/ethnicity of the perpetrator in inter-ethnic bullying. Our findings provide initial support that bullying between ethnic groups is not based on demographic differences alone, and the assessment of ethnicity as a descriptive, self-categorization variable is not sufficient to account for ethnic differences in bullying.

Overall, our results point to the importance of methodological variables in explaining ethnic differences in bullying behaviour between ethnic groups. Although basic demographic differences did not yield strong effect sizes, the presence or absence of a bullying definition and different measures (i.e., one-to-four items) provided significant results between White and non-White students. We cannot infer why the presence/absence of a definition is associated with higher bullying reports among ethnic minorities, but it can be speculated that different norms and perceptions of bullying varies across ethnic groups. Importantly, students' understanding of bullying definitions have been found to be discordant with the standard definition used by researchers, therefore, the presence or absence of a definition may influence participants' reporting of bullying. Vaillancourt and colleagues (2008) found that only a small percentage of students included power imbalance, repetition, and intentionality in their conceptualization of bullying particularly in childhood, whereas adolescents were more likely to incorporate power imbalance as a characteristic of

bullying than younger children. In regards to ethnic minority youth, it may be the case that developmental differences in combination with cultural differences in what constitutes bullying behaviour can influence students' reports and potentially account for variation across ethnic samples. The present meta-analysis included a large and representative sample of ethnic majority and minority students across countries, and is the first to systematically address the effect of ethnicity in bullying perpetration. However, interpretation of results is limited to a demographic description as the examination of ethnic identity, acculturation, and societal factors that may account for ethnic differences in bullying perpetration were not considered. In addition, the ethnicity of the targets of bullying was not assessed, hence, we cannot address whether bullying occurs inter- or intra-ethnically. Across most ethnic group comparisons, White students appeared to engage in more bullying than ethnic minorities. In the group comparisons reported in this study, the overall sample size of White students was at least twice as large as that for each of the minority groups. It is possible that bullying is more common among national ethnic groups which hold the numerical majority and power in the larger society compared to visible and ethnic minorities. In addition, we were not able to examine ethnic diversity, as well as visible minority status, which may conceal the incidence of bullying. For example, in European countries, ethnic minorities can belong to another European ethnic group (i.e., Former Yugoslavian) who may not appear as a visible minority but are still considered as immigrants in the host country. Researchers need to address differences in conceptualizations of bullying particularly among immigrant and non-immigrant students, normative beliefs and cultural socialization practices regarding bullying across ethnic groups, as well as the extent to which bullying is more likely to occur between children of the same ethnicity.

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Table 3.

Moderator Analysis Results from Multiple Group Comparisons Bullying Perpetration Meta-Analysis

Ethnic Groups Comparison	Q_b , (df)	k	d	95% CI LL, UL
White-Black ($Q_{(df)}$, I^2 , τ^2)	1956.68 (23)	98.82	.14	
Random-effects		24	-.11	-0.28, 0.06
Moderators				
Publication type	105.97 (1), $p < .01$			
Peer-reviewed		12	.03	0.07, -0.00
Theses/Dissertations		12	-.27	-0.24, -0.30
Definition	56.36 (1), $p < .01$			
Yes		12	.05	0.08, 0.01
No		12	-.08	-0.07, -0.09
Measure	10.04 (3), ns			
Questionnaire		8	-.10	-0.06, -0.13
Olweus		4	.32	0.61, 0.03
Peer nominations		2	-.21	-0.06, -0.36
One-to-four items		10	-.00	0.02, -0.02
Country	57.69 (1), $p < .01$			
US		16	-.06	0.05, -0.18
Canada		7	.17	0.33, 0.14
Age	4.64 (2), ns			
Young		2	-.20	-0.14, -0.26
Old		20	-.05	0.01, -0.11
Cross-ranges		2	.01	0.14, -0.11

(continues)

Table 3. Moderator Analysis Results from Multiple Group Comparisons Bullying Perpetration Meta-Analysis (continued)

Ethnic Groups Comparison	$Q_b, (df)$	k	d	95% CI LL, UL
White-Hispanic ($Q_{(df)}, I^2, T^2$)	588.47 (13), $p < .01$		97.79	0.17
Random-effects			.02	-0.21, 0.25
Moderators		14		
Publication type	26.79 (1), $p < .01$			
Peer-reviewed		7	.10	0.21, -0.00
Theses/Dissertations		7	-.39	0.45, 0.33
Definition	20.34 (1), $p < .01$			
Yes		7	.10	0.19, 0.01
No		7	.31	0.19, 0.01
Measure	89.9 (3), $p < .01$			
Questionnaire		5	.59	0.73, 0.46
Olweus		2	-.11	0.12, -0.34
Peer nominations		2	1.34	1.75, 0.91
One-to-four items		5		
Country	2.42(1), ns			
US		1	.28	0.32, 0.25
Canada		13	.49	0.74, 0.23
Age	42.71 (1), $p < .01$			
Young		1	.76	1.03, 0.50
Old		12	.21	0.49, -0.06
Cross-ranges		1	1.11	1.42, 0.81

(continues)

Table 3. Moderator Analysis Results from Multiple Group Comparisons Bullying Perpetration Meta-Analysis (continued)

Ethnic Groups Comparison	Q_b , (df)	k	d	95% CI LL, UL
White-Asian ($Q_{(df)}$, I^2 , T^2)	155.92 (17), $p < .01$		89.09	0.04
Random-effects			.07	-0.04, 0.18
Moderators		18		
Publication type	0.73 (1), ns			
Peer-reviewed		10	.14	0.26, 0.02
Theses/Dissertations		8	.09	0.14, 0.03
Definition	0.68 (1), ns			
Yes		7	.15	0.13, 0.04
No		11	.09	0.25, 0.04
Measure	24.66 (3), $p < .01$			
Questionnaire		6	.23	0.31, 0.14
Olweus		2	.22	0.79, -0.34
Peer nominations		2	.57	1.02, 0.12
One-to-four items		8	.02	0.06, -0.02
Country	14.86(2), $p < .01$			
US		9	.17	0.39, -0.05
Canada		6	-.18	0.22, -0.26
Europe (UK)		2	.41	1.03, -0.21
Age	0.53(2), ns			
Young		2	.16	0.35, -0.01
Old		13	.09	0.32, -0.14
Cross-ranges		3	.13	0.44, -0.18

(continues)

Table 3. Moderator Analysis Results from Multiple Group Comparisons Bullying Perpetration Meta-Analysis (continued)

Ethnic Groups Comparison	$Q_b, (df)$	k	d	95% CI LL, UL
White-Aboriginal ($Q_{(df)}, I^2, T^2$)	82.07 (10)		87.81	0.07
Random-effects		11	-.19	-0.37, -0.01
Moderators				
Publication type	3.08 (1), ns			
Peer-reviewed		5	-.12	0.10, -0.35
Theses/Dissertations		6	-.12	0.16, 0.39
Definition	33.94(1), $p < .01$			
Yes		8	.03	0.24, -0.18
No		3	-.61	-0.46, -0.75
Measure	7.05 (2), $p < .05$			
Questionnaire		4	-.12	0.05, -0.29
Olweus		2	-.10	0.42, -0.65
One-to-four items		5	-.36	-0.23, -0.48
Country	0.32 (1), ns			
US		7	-.28	-0.05, -0.50
Canada		4	-.08	-0.03, -0.13
Age	0.48 (1), ns			
Young		3	-.12	0.06, -0.30
Old		8	-.12	0.08, -0.32

Chapter 4 – Study 3

School Ethnic Composition and Bullying in Canadian Schools

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Abstract

Bullying in ethnically diverse schools varies as a function of the ethnic composition and degree of diversity in schools. Although Canadian society is highly multicultural, few researchers have focused on the role of context on ethnic majority and minority youths' bullying involvement. In the present study, 11,649 European-Canadian/ethnic majority (77%) and non-European Canadian/ ethnic minority (23%) students in grades 4 to grade 12 completed an online Safe Schools Survey on general, physical, verbal, social, and cyber bullying. HLM analyses indicated significant interactions between proportion of non-European Canadian children in a school (Level 2) and individual ethnicity (Level 1) across most types of bullying victimization. Non-European Canadian students experienced less peer victimization in schools with higher proportions of non-European Canadian students, but ethnic composition was not related to European Canadian students' peer victimization. No differences in bullying perpetration were found as a function of school ethnic composition across groups. Our findings suggest that ethnic composition in Canadian schools may not be strongly associated with bullying perpetration and that a higher representation of other ethnic minority peers may act as a buffer against peer victimization.

Keywords: school ethnic composition, bullying, victimization

School Ethnic Composition and Bullying in Canadian Schools

The increase of immigration and native-born immigrant students in North America and Europe has led to a higher representation of ethnic minorities in schools. In Canada, 20% of the population is comprised of foreign-born individuals and immigrant children account for approximately 19% of newcomers (Statistics Canada, 2011). Ethnic minority groups identifying as South Asian, Chinese, and Black are the three largest visible minority groups in the country, and approximately 45% of visible minority youth were born in Canada (Statistics Canada, 2011). As a result, interethnic peer relationships are becoming more common, and bullying is as likely to occur between ethnic majority and minority youth as it is between ethnic majority students only.

Research on ethnic differences has yielded varying results regarding the prevalence of bullying among groups. For example, findings from Austria and the United Kingdom (UK) indicate that ethnic minority youth, such as African or Turkish, were less likely to be victimized than native White youth (e.g., Stefanek, Strohmeier, van de Schoot, Spiel, 2012; Tippet, Wolke, & Platt, 2013), whereas Norwegian findings showed that ethnic minorities were more likely to be victimized than ethnic majorities (e.g., Fandrem, Strohmeier, & Jonsdottir, 2012). Nevertheless, ethnicity examined as a demographic (individual-level) variable without taking into consideration contextual factors is not strongly associated with bullying involvement (Vitoroulis & Vaillancourt, 2015).

Considering the large variability in observed findings and the complexity of interethnic relations in childhood and adolescence, research focus has shifted toward the study of contextual variables and intergroup contact theories to account for differences in bullying prevalence rates. In particular, ethnic diversity and the numerical representation of

ethnic groups in schools have been suggested to influence bullying dynamics between ethnic majorities and minorities (e.g., Graham, 2006; Graham, Bellmore, Nishina, & Juvonen, 2009). In Europe and the United States (US), several studies indicate that numerically smaller ethnic groups in a school setting are more likely to experience peer victimization compared to larger groups (e.g., Agirdag, Demanet, Van Houtte, & Van Avermaet, 2011; Hanish & Guerra, 2000), whereas members of larger ethnic groups in the classroom have been rated by peers as more aggressive than as victims (e.g., Graham & Juvonen, 2002). Despite Canada's multicultural population and school ethnic diversity, little research has been conducted on the association between ethnicity and bullying, and particularly, school ethnic composition and bullying involvement of ethnic majority and minority students. In the present study, we examined school ethnic composition and students' reports of general, physical, verbal, social, and cyber bullying perpetration and victimization. Drawing from a large population-based study of over 11,000 students, we examined whether European Canadian (i.e., White) and ethnic minority students experienced or perpetrated more bullying behaviour in schools with higher and lower proportions of same-ethnicity peers.

Bullying and Intergroup Attitudes

Bullying, which is defined as repetitive aggression with the intention to cause harm within a dynamic of power imbalance between the children involved (Olweus, 1999), is often described as a group process (Salmivalli, 2010). At the group level, the norms held by primary and peripheral members influence behaviour and attitudes, such that children are more likely to be involved in and support and hold positive attitudes toward bullying when the peer group holds pro-bullying norms (e.g., Duffy & Nesdale, 2008; Ojala & Nesdale, 2004). Peer relationships are formed based on shared characteristics, including bullying

attitudes and ethnicity, and a sense of belongingness and common identity with a group with similar values (Aboud, 2003; Bagwell & Schmidt, 2011; Nesdale, Maass, Griffiths, & Durkin, 2003). Stemming from intergroup contact and social identity theories, children tend to display in-group favouritism and out-group bias in order to preserve their group identity, establish a high status position, or as a defense against perceived threat to the in-group (e.g., McGlothlin, Edmonds, & Killen, 2010; Nesdale & Scarlett, 2004). Children and adolescents tend to rate their in-group more positively and hold negative attitudes toward the out-group, particularly when intergroup conflict or comparison emerge and bullying or discrimination against out-groups are used as a means to establish a higher status (Gini, 2006; Nesdale & Scarlett, 2004; Nesdale, Durkin, Maass, & Griffiths, 2004).

Ethnicity is a salient characteristic in peer group formation, and children tend to hold more prejudicial attitudes toward out-groups (Nesdale, Maass, Durkin, & Griffiths, 2005). This in-group preference and out-group discrimination appears to be particularly prominent in ethnic majority youth compared to ethnic minorities. Ethnic majority children have been found to rate their ethnic in-group members more positively than ethnic out-groups (e.g., Griffiths & Nesdale, 2006; Vervoort, Scholte, & Sheepers, 2010) and to select same-ethnicity friends more often than peers of different ethnicities (e.g., Hamm, Brown, & Heck, 2005). In contrast, ethnic minority children rate their ethnic in-group and out-groups equally positive (Griffiths & Nesdale, 2006; Verkuyten & Martinovic, 2006) and although they identify more strongly with their ethnic in-group than ethnic majority peers do, they report more out-group friendships (Verkuyten & Martinovic, 2006; Vermeij, van Duijn, & Baerveldt, 2009). In addition, Black students in the US have been found to display same-ethnicity bias for both positive and negative attributes, such as acceptance, rejection, and

‘coolness’, whereas Hispanic and White students displayed only positive in-group bias (Bellmore, Nishina, Witkow, & Juvonen, 2007). These findings suggest that ethnic bias may be more characteristic of ethnic majorities who might perceive higher threat or be more prejudicial in the presence of ethnic minorities.

Ethnic Diversity and Bullying

Ethnic diversity inevitably leads to frequent interethnic contact, which may result in positive or negative interactions between students. Research indicates that cross-race friendships are frequently formed, and prejudice and discrimination decrease with increased contact with other-ethnicity peers (Pettigrew, 1998; Pettigrew & Tropp, 2006; Tropp, O’Brien, & Migacheva, 2014). However, it is often the case that the coexistence of multiple groups in the same setting may result in aggressive or bullying behaviour. Although individual ethnicity does not seem to be strongly associated with bullying prevalence rates, numerically disproportionate ethnic diversity has been linked with peer victimization at the classroom and school levels (e.g., Graham, 2006). That is, ethnic minority groups with a smaller numerical representation in a school are more likely to experience peer victimization compared to ethnic majority students who comprise a larger percentage of the school population (Hanish & Guerra, 2000; Verkuyten & Thijs, 2002). Parallel to the definition of bullying, any form of imbalance, such as ethnic representation, may be associated with higher levels of bullying. According to the ethnic composition hypothesis (Graham, 2006), ethnic diversity in schools, where no one group holds the numerical majority, is associated with lower levels of peer victimization and anxiety, and higher perception of school safety (e.g., Bellmore, Witkow, Graham, & Juvonen, 2004; Graham, 2006; Juvonen, Nishina, & Graham, 2006). In contrast, disproportionate numerical ethnic group representation may

result in interethnic conflict and bullying regardless of the ethnicity of the numerical minority groups (e.g., Graham & Juvonen, 2002). Bigler and Liben (2007) suggest that because proportionately smaller groups are more distinct than larger groups they may become the target of stereotypes and prejudice. However, the percentage of ethnic proportions in schools appears to play a twofold role at the mid-point (i.e., around 50% diversity), where moderate levels of ethnic diversity may be associated with more bullying behaviour or ethnic discrimination (e.g., Bellmore, Nishina, You, & Ma, 2012). Although a larger gap in numerical proportions (i.e., 80/20%; Durkin et al., 2012) is more clearly associated with peer victimization, moderate levels of ethnic diversity may exacerbate interethnic conflict in contexts in which groups might strive to achieve a socially dominant position or where group and friendship segregation are more noticeable (e.g., Moody, 2001).

The relation between school ethnic composition and bullying has been supported in the literature, although some studies report no association between ethnic diversity and bullying perpetration or victimization. For example, American and British research showed that ethnic majority-minority status and ethnic diversity were not related to peer victimization (Durkin et al., 2012; Mehari, & Farrell, 2013; Stefanek et al., 2012), except for the discriminatory subtype which was reported more frequently by ethnic minorities as the proportion of ethnic minority peers increased (Durkin et al., 2012). Vervoort, Scholte, and Overbeek (2010) found that ethnic minorities scored significantly higher on bullying than ethnic majority members at the individual level; however, the relation between ethnic minority proportion in class and bullying was not significant. In Belgium, Agirdag and colleagues (2011) found that immigrant children reported less peer victimization than native Belgian students in schools with a higher ethnic minority population, and the relation

between school context and peer victimization was mediated by interethnic school climate, such as the number of interethnic friendships and interethnic conflict. More recently, Thijs, Verkuyten, and Grundel (2014) examined the moderating role of in-group bias peer victimization and classroom ethnic composition, and found that the association between these two variables was moderated by out-group negative attitudes toward the victimized group.

These findings suggest that ethnic context alone may not be sufficient to account for differences in bullying between ethnic groups. Nevertheless, a number of studies support that disproportionate ethnic diversity in classrooms and schools is associated with more bullying victimization. In Europe, Verkuyten and Thijs (2002) found that a higher proportion of native Dutch children was associated with more racist peer victimization for ethnic minorities (Turkish, Moroccan), and a higher proportion of same-ethnicity peers in the classroom was associated with less racism among immigrant children. In contrast, a higher proportion of native Dutch students in the classroom was associated with less racist victimization for Dutch students. Similarly, Vervoort et al. (2010) found that ethnically heterogeneous classes were associated with higher levels of victimization, although native Dutch students reported more peer victimization overall than ethnic minorities regardless of ethnic composition. In the US, Black and White students' peer victimization rates did not differ; however, White students were more likely to be victimized in predominantly non-White schools than in predominantly White schools (Hanish & Guerra, 2000). Studies employing peer nominations have also shown that Black and Latino students were more likely to be nominated as aggressive when they were the numerical majority in the classroom (Graham & Juvonen, 2002; Jackson, Barth, Powell, & Lochman, 2006), whereas

numerical minority youth, such as White and Persian, were more likely to be nominated as victims (Graham & Juvonen, 2002). Interestingly, White students were more likely to receive favourable peer nominations irrespective of the classroom ethnic composition (Jackson et al., 2006). More recently, Barth and colleagues (2013) reported that White students were nominated as bullies more in schools with a greater proportion of Black students, whereas Black students received more nominations for ‘fights’ and victims with increased percentage of same-ethnicity peers (Barth et al., 2013).

Overall, studies in the US and Europe generally support the association between school or classroom ethnic composition and bullying victimization. Although Canada is a multicultural society with a large percentage of ethnic minorities, few studies have examined bullying in the context of ethnicity. Research suggests that Canadian ethnic minority youth perceive more racial discrimination by teachers and peers than ethnic majority peers (Dyson, 2005; Oxman-Martinez et al., 2012), and consequently, they report lower social competence in peer relationships. In addition, adolescents who recently immigrated to Canada reported greater discrimination, fear of teasing or exclusion and lower school safety compared to adolescents living in Canada for more than two years, and racial discrimination reports were negatively associated with the proportion of same-ethnicity peers in schools (Closson, Darwich, Hymel, & Waterhouse, 2014).

With regards to bullying, studies on ethnicity as an individual-level variable indicate that ethnic minorities report more peer victimization than ethnic majority youth (e.g., Chen & Tse, 2008; Pepler, Connolly, & Craig, 1999), although few studies have examined the role of school or classroom ethnic composition in the prevalence of bullying. Larochette, Murphy, and Craig (2010) investigated individual- and school-level variables in racial

bullying among European Canadian and African Canadian adolescents, and found that student and teacher diversity alone, as well as school climate, were not associated with racial bullying or victimization at the school level. At the individual level, African Canadian students engaged in more racial bullying compared to European Canadian students. For victimization, Larochette and colleagues found that being African Canadian, East Asian Canadian, South East Asian Canadian, and Native Canadian was associated with racial victimization at the individual-level; however these effects diminished at the school-level with the exception of African Canadian students. Hoglund and Hosan (2012) examined peer aggression and victimization within ethnically diverse classrooms and found that lower ethnic diversity was associated with higher levels of aggression. In addition, Aboriginal and Asian adolescents who experienced more peer victimization also reported higher levels of depression and anxiety compared to Whites. Lastly, Schumann, Craig, and Rosu (2014) found that individual-level factors, such as gender and socioeconomic status, and community-level factors, such as low community involvement, predicted peer victimization for ethnic minority youth.

Current Study

Despite the aforementioned findings, there is a lack of large-scale research on ethnic composition and bullying in Canadian schools. In the present study, we examined students' reported bullying perpetration and victimization within ethnically diverse schools by using a nested model to account for contextual effects. The present study replicates previous American and European research on school ethnic composition and bullying in the Canadian context and extends previous research by including the assessment of separate subtypes of bullying behaviour in a large study of over 11,000 participants. Behaviour-based measures

that include specific bullying behaviour and definitions are more accurate at assessing prevalence rates compared to general questions, such as “Have you been bullied/bullied others”, which are more accurate at classifying non-involved students (Vaillancourt et al., 2010). Pertaining specifically to ethnic minorities, Sawyer and colleagues (2008) found that ethnic minority youth were more likely to endorse peer victimization items when explicitly presented with several subtypes compared to generic questions. Thus, we expected that bullying reports would differ across subtypes. In addition to differences related to measurement specificity, differences exist between direct (i.e., physical) and indirect (i.e., relational) forms of bullying. For example, ethnic minority students are more likely to experience name-calling and social exclusion (e.g., Moran, Smith, Thompson, & Whitney, 1993; Verkuyten & Thijs, 2002), whereas physical bullying appears to be the least frequent form of bullying regardless of ethnicity, particularly in older ages (e.g., Rivers & Smith, 1994). Finally, we expected that ethnic minority youth would report more bullying victimization in schools with low levels of ethnic diversity, whereas ethnic majority students were expected to report more bullying perpetration in schools with a higher proportion of same-ethnicity peers. Lastly, the majority of studies on school ethnic composition and bullying have assessed peer victimization but less is known about bullying perpetration specifically and school ethnic composition. In the present study, we examined both bullying perpetration and victimization in the context of school ethnic composition.

Method

Participants

An ethnically diverse sample of 11,649 (5,673 girls and 5,976 boys) was recruited from 114 schools from a large public school district in urban/suburban and rural Southern

Ontario. The sample was derived from an entire public school board which included smaller, more rural schools. However, these “rural” schools were within an hour driving distance to the major urban area. Thus they were rural, but not isolated. For the analyses, 96 schools were retained with 20 or more participants with complete data on ethnicity and bullying per school in order to perform the multilevel modelling analyses. At the school level, there were no differences in the proportions of bullying and victimization between the included and excluded schools. The majority of participants were White/European Canadian (76.9%), Asian Canadian (7.5%), South Asian Canadian (5.1%), African Canadian (5.5%), Aboriginal, (3.8%), and Other/Biracial (1.2%) in Grades 4 to 12 (age range: 8-20, $M=12.79$, $SD=2.49$). For the analyses, participants were grouped into European Canadian (ethnic majority/White; $n=8960$) and non-European Canadian (ethnic minority/non-White; $n=2689$).

Procedure

All students with parental permission and who agreed to participate (98% of sample) completed online a 30-minute online Safe School Survey (Vaillancourt et al., 2010), supervised by their classroom (elementary division) and homeroom teachers (secondary division), in the computer labs of their respective schools in January (elementary) and February (secondary) of 2008. Less than 5% of students declined or withdrew from the study.

Measures

Demographics. Participants completed a basic demographic questionnaire on age, sex, and ethnic background. Ethnicity was assessed from a list of options including African/Caribbean (Black), Asian (Chinese, Japanese, Vietnamese, Korean, etc.), European

Canadian (White), First Nations (Native, Indian, Aboriginal), South Asian (Indo-Canadian, East Indian, Pakistani, etc.), Other (please describe), “I don’t know”.

Bullying. Following recommendations by Vaillancourt et al. (2008), participants were presented with Olweus’ (1996) definition of bullying adapted by Whitney and Smith (1993).

“We say a student is being bullied when another student, or a group of students say nasty and unpleasant things to him or her. It is also bullying when a student is hit, kicked, threatened, locked inside a room, sent nasty notes, when people don't talk to him or her and things like that. These things may take place frequently and it is difficult for the student being bullied to defend him/herself. It is also bullying when a student is teased repeatedly in a negative way. But it is not bullying when two students of about the same strength quarrel or fight (p.7)”.

Students were then asked to report the frequency of their own bullying experiences in the past three months based on a 5-point frequency scale ranging from 1 (never) to 5 (several times a week). Ten items assessing general (global item), physical (e.g., hit, kicked, pushed), verbal (e.g., name-calling, threatening), social (e.g., gossip, being left out) and cyber (e.g., have you been bullied via email, text messages, or other technological means) bullying perpetration ($\alpha=.82$) and victimization ($\alpha=.90$) were adapted from Olweus (1996) (e.g., “At school, how often have other students physically bullied you? Examples: hit, kicked, pushed, spat on or otherwise physically hurt you”).

School ethnic composition. We assessed school ethnic diversity based on the proportion of ethnic minority students in the schools. The variable was calculated by taking

the number of ethnic minorities in each school over the total number of students in each school ($M=.23$ $SD=.15$). Proportion of ethnic minorities in schools ranged from 2.7-85.48%, and the variable was used as a Level 2 predictor for school ethnic composition.

Analytic Plan

We examined the association between school ethnic composition and ethnic majority (European Canadian) and minority (non-European Canadian) students' experiences of bullying by constructing 2-Level multilevel models. Multilevel models draw from the hierarchical nature of the data in which one level is nested within another, for example, students (Level 1 or individual-level) nested within schools (Level 2 or school-level). In particular, we assessed whether non-European Canadian students reported more bullying perpetration or victimization than European Canadians depending on the proportion of other ethnic minorities in the schools. At Level 1 participants' sex, grade and bullying perpetration (for the victimization analysis) or victimization (for the bullying analysis) were entered as control variables, and individual ethnicity was examined as a predictor. We controlled for bullying perpetration and victimization in each analysis in order to obtain results on true bullies and victims. At Level 2, school ethnic composition (% ethnic minority/non-White students) was entered as a predictor, and interactions between individual ethnicity and school ethnic composition on each bullying/victimization outcome were examined. We also included school size as a control variable at Level 2 in order to rule out differences between larger and smaller schools. Analyses were conducted in Mplus (v. 6.12; Muthén & Muthén, 1998–2012). A robust maximum likelihood estimator was used in order to correct for the assumption of normality violation. Models were compared using the log likelihood ratio test ($\Delta-2LL$) and evaluated against a chi-squared distribution. Bullying outcome variables were

grand-mean centered and control variables were coded using unweighted effects coding (-1 = boy; -1 = ethnic majority). Intraclass Correlation Coefficients (ICCs), individual and school-level variances were calculated in order to obtain the amount of variance in bullying accounted for by within-individual and between-school differences.

Results

Means and standard deviations for all outcome variables (bullying perpetration and victimization) are presented in Table 4 and bullying prevalence rates across and within schools are presented in Table 5. European Canadian students reported more social victimization ($F_{(1,11648)}=5.57, p< .05, d=.05$) than non-European Canadian students. Non-European Canadian participants also reported more physical ($F_{(1,11648)}=22.40, p< .001, d=-.10$) and cyber ($F_{(1,11648)}=17.20, p< .001, d=-.09$) bullying perpetration than European Canadian participants. No other statistically significant differences between ethnic groups were found.

Multilevel Models

Multilevel modeling analyses were performed in order to examine differences in bullying between ethnic majority and minority students as a function of school ethnic composition. At Level 1, sex, grade and bullying perpetration subtypes were entered as control variables. School ethnic composition, defined as the percentage of non-European Canadian students in schools, was entered as a Level-2 predictor. Two separate analyses were conducted for bullying perpetration and bullying victimization including physical, verbal, social, cyber and general subtypes. In each analysis, Model 1 included an intercept-only model in order to determine the amount of variance at Level 1 and Level 2. Model 2 included all Level-1 control variables (sex, grade, bullying perpetration or victimization) to

examine the amount of variance accounted for by within-school differences. Model 3 included individual ethnicity (European Canadian, non-European Canadian) at Level-1 and school ethnic composition (% minority) at Level-2, and lastly, Model 4 included interactions between Level-1 and Level-2 variables (individual ethnicity, % non-European Canadian).

A total of 96 schools were included in the analyses, and the average number of students per school was 121 (range: 20-973). Results were not statistically significant for bullying perpetration across both ethnic groups (Table 6). For bullying victimization, the proportion of non-European Canadians in the schools was a significant predictor for non-European Canadian students (Table 7). The obtained intraclass correlations ranged from $\rho=0.009-0.026$, indicating that 0.9-2.6% of the variability in bullying victimization was accounted by between-school differences (Table 7). In Model 1, results of the null model indicated that 0.2-1.4% of the variance in all victimization outcomes could be accounted for by between-school differences. In Model 2, the addition of sex, grade, and bullying perpetration subtypes improved the model fit for all victimization subtypes, $\Delta-2LL = 11531.75$, $df=60$, $p<.001$. In Model 3, the addition of individual ethnicity and proportion of non-European Canadians at school indicated a better fit for the model $\Delta-2LL = 40.85$, $df=10$, $p<.001$. Proportion of non-European Canadians in schools predicted all peer victimization outcomes except for the general subtype. In Model 4, the interaction term proportion non-European Canadian x individual ethnicity (European Canadian, non-European Canadian) improved the model $\Delta-2LL = 28.98$, $df=5$, $p<.001$.

We conducted follow-up tests to examine individual ethnicity as a moderator between proportion of non-European Canadians in schools at Level 2 and bullying victimization outcomes. Results indicated that school ethnic composition did not predict

increases or decreases in European Canadian students' bullying victimization for the general ($b=0.00$, $SE=0.00$, $p>.05$), physical ($b=-0.001$, $SE=0.001$, $p>.05$), verbal ($b=0.001$, $SE=0.001$, $p>.05$), social ($b=-0.001$, $SE=0.001$, $p>.05$), and cyber ($b=0.001$, $SE=0.001$, $p>.05$) subtypes. For non-European Canadian participants, results indicated that as the proportion of ethnic minorities in schools increased, rates of bullying victimization decreased for the general ($b=-0.004$, $SE=0.001$, $p<.01$), physical ($b=-0.003$, $SE=0.001$, $p<.01$), verbal ($b=-0.004$, $SE=0.001$, $p<.01$), social ($b=-0.004$, $SE=0.001$, $p<.001$) subtypes but not for cyber ($b=-0.001$, $SE=0.001$, $p=.05$).

Lastly, the proportion of variance accounted for by the full model for each type of victimization was 13.9% for general, 22.4% for physical, 18.8% for verbal, 17.1% for social, and 31% for cyber victimization.

Discussion

The present research is one of the first Canadian studies on school ethnic composition and bullying involvement among European Canadian and non-European Canadian youth. Descriptive mean group differences indicated that non-European Canadian participants reported more physical and cyber bullying perpetration than European Canadian participants, whereas European Canadians reported more social victimization – but the effect sizes obtained were small, ranging from .05 to -.10. Differences in the bullying subtypes between groups may be due to intra- or inter-ethnic bullying, such that physical perpetration and victimization may occur between ethnic minority students only or between ethnic majority and minority students; however, we cannot infer inter- or intra-ethnic bullying from our findings. Further research on the ethnicity of the perpetrators and victims of bullying is needed as recent findings indicate that inter-ethnic bullying is less frequent

than intra-ethnic bullying in more ethnically diverse classrooms (Tolsma, van Dreuzen, Stark, & Veenstra, 2013). Interestingly, mean differences indicated that non-European Canadian participants reported more cyber bullying perpetration than European Canadian students. Cyber bullying has emerged as a new form of bullying and is correlated with involvement in traditional forms of bullying (Kowalski, 2014; Modecki, Minchin, Harbaugh, Guerra, & Runions, 2014). Our results indicated that this form is prevalent among non-European Canadian students as well, although it occurs at lower levels compared to other forms of bullying for most students. Previous research has yielded different prevalence rates in cyber bullying between White and non-White youth, with some findings showing no differences between ethnic groups (Smith, Thompson, & Bhatti, 2012) and others showing that White or ethnic minority students are more likely to cyber-bully (Kupczynski, Mundy, & Green, 2013; Low & Espelage, 2013; Shapka & Law, 2013). Considering the variability in cyberbullying prevalence among ethnic groups, further systematic studies are necessary to examine whether there are true and strong differences between ethnicities.

Similar to European and American findings, results indicated that non-European Canadian (ethnic minority) students experienced less peer victimization in schools with a higher proportion of other non-European-Canadian (ethnic minority) peers. However, we did not find any differences in bullying perpetration and school ethnic composition across both ethnic groups. This is consistent with Vervoort and colleagues' (2010) study who found no differences in bullying perpetration in relation to classroom ethnic composition.

Non-European Canadian students reported lower levels of bullying victimization across most subtypes in schools with a higher proportion of non-European Canadians.

Although no causal relation between bullying and school ethnic composition can be inferred, previous research supports that a higher representation of same-ethnicity or other ethnic minority peers may be associated with more supportive networks that can act as a buffer against bullying. In particular, findings from the Netherlands suggest that Turkish students reported having more friendship networks and higher support from same-ethnicity peers (Baerveldt, Van Duijn, Vermeij, & Hermet, 2004) and minority students also report having both inter- and intra- ethnic friendships compared to ethnic majority students, who have fewer inter-ethnic friendships (Vermeij et al., 2009). In addition, ethnic minority youth have been found to report lower levels of victimization in ethnically diverse schools, both in Europe and the US (e.g., Graham & Juvonen, 2002; Agirdag et al., 2011) and ethnic diversity may reduce peer risk of peer victimization (Juvonen et al., 2006). Our results replicate previous studies, and extend findings by including several forms of bullying behaviour. In previous studies on peer victimization and ethnic diversity, outcome measures have been combined into a composite score (e.g., Juvonen et al., 2006; Vervoort et al., 2010), which does not allow for the examination of, or comparison between, specific types of behaviour such as verbal, physical, cyber, or social bullying.

The non-significant results on bullying perpetration among ethnic majority and minority students may not be surprising considering that European Canadian youth are members of the national majority group, which may be implicitly associated with higher status and power in the larger society, and thus, ethnic diversity may not pose a direct threat to the ethnic majority. In addition, bullying does not necessarily occur between ethnic majority and minority students but between ethnic majorities or ethnic minorities only. For example, Eslea and Mukhtar (2000) found that South Asian students reported they were

more frequently bullied by other South Asian peers and Tolsma and colleagues (2013) found that both inter- and intra-ethnic bullying are equally common in ethnically diverse classrooms. Thus, although we found no differences in bullying perpetration between groups, it is possible that bullying behaviour occurs between members of the same ethnicity rather than ethnic out-groups. Also, recent research indicates that intergroup relations within the context of school ethnic composition may be moderated by personality traits and negative attitudes (Thijs et al., 2014; van Zalk & Kerr, 2014), therefore, ethnic proportions alone may not account for the intergroup processes in bullying between ethnic groups.

Canada has a high level of immigration and diversity and the multicultural policy established in the 1970s supports cultural maintenance, ethnic diversity and integration of immigrants into the society (Berry, Phinney, Sam, & Vedder, 2006). Compared to other countries, such as the US, the UK, and France, Canada ranks higher on multiculturalism and acceptance of immigrants (Berry, 2013). Immigrant selection in Canada is based on a point system that screens attributes such as education, age, and job skills (Beiser, 2005), and a large percentage of newcomers are more educated than their Canadian counterparts (Statistics Canada, 2010). Thus, the system of entry to the Canadian society, as well as the positive multicultural attitudes, may be related to lower prevalence rates of bullying against ethnic groups due to the general acceptance and strong ethnic communities. In addition, attitudes toward immigrants are more favourable in Ontario where this study was conducted compared to other provinces (Berry & Kalin, 1995), therefore, positive attitudes may extend to youth and peer relationships in schools. Indeed, Sabatier and Berry (2008) found that immigrant adolescents in Canada reported lower levels of racial discrimination compared to adolescents in France, a country with moderate levels of ethnic diversity and a lengthier

process of obtaining citizenship. Nevertheless, immigrant status was not assessed in the present study, therefore, this discussion point is a general one in order to be inclusive of Canadian and non-Canadian ethnic minority youth.

Growing up in a community that is supportive of cultural diversity creates opportunities for contact early on and intergroup contact has been shown to reduce prejudice (Pettigrew & Tropp, 2006). Thus, ethnicity might not necessarily become a target for bullying in ethnically diverse schools. Ethnic majority children exhibit more positive out-group attitudes and tolerance with increased cross-ethnic friendships (Feddes, Noack, & Rutland, 2009; van Zalk & Kerr, 2014) and in the presence of positive intergroup school climate, ethnocentrism and prejudice may decrease (Dejaeghere, Hooghe, & Claes, 2012). Canadian studies with immigrant youth in Ontario have shown no differences in general peer victimization between Canadian non-immigrant and immigrant youth at the individual-level; however, White youth and immigrant youth of Canadian-born parents were grouped into one category (McKenney, Pepler, Craig, & Connolly, 2006). In addition, McKenney and colleagues (2006) reported that their results were positively skewed across all outcome variables, indicating that students did not have significant problems with peer victimization. School-level factors, such as school climate, were also not associated with racial bullying in African and White students (Larochette et al., 2010). Although Canada ranks high in bullying prevalence rates (UNICEF Office of Research, 2013), ethnic diversity in particular may not be a strong factor in bullying perpetration, and considering the few differences in victimization between European and non-European Canadian students in our study it may be that the rates of bullying perpetration and victimization are not alarmingly high among ethnic minorities.

Nevertheless, there is little research on bullying and ethnicity in Canada, and inter-ethnic bullying may be more prevalent than previously reported. Attitudes toward immigrants or ethnic minorities in Canada are based on a hierarchy of groups, with those of European origin regarded more highly compared to visible minorities (Berry & Kalin, 1995). Hoglund and Hosan (2012) found that aggression levels were higher in less ethnically diverse Canadian classrooms. In addition, visible minority youth report experiencing more bullying because of their ethnicity. Bullying and racial discrimination may overlap in students' experiences and not be adequately assessed in research. Future research should incorporate measures of bullying and racial discrimination simultaneously, as well as assessments of perceived reasons for bullying others or being victimized by peers (i.e., because of one's ethnicity/cultural background). Social support, however, helps youths' adjustment to the Canadian society, especially friendship formation with peers of immigrant background (Ochocka, 2006). Therefore, higher ethnic diversity in Canadian schools may provide opportunities for contact with peers of similar backgrounds and consequently may be associated with higher levels of support and lower levels of peer victimization.

The present study is among the first to demonstrate that school ethnic composition is associated with lower bullying victimization rates among ethnic minority students in Canadian schools, and the full model accounted for 13.9-31% of the variance across victimization types. In addition, our findings are supported across general and specific subtypes of bullying behaviour, suggesting that ethnic diversity influences bullying victimization across a large spectrum of behaviour. However, we did not assess the association between ethnic diversity and bullying at the classroom level, which may provide a more pragmatic picture of bullying in smaller settings. In addition, the ethnicity of the

perpetrators was not assessed, and thus, it was not possible to examine the extent of inter- and intra- ethnic bullying among ethnic majority and minority students. Although ethnic diversity appears to play an important role in bullying, additional factors such as ethnicity of the perpetrator, attitudes toward minorities and the link between discrimination and bullying should be investigated.

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Table 4.

Descriptive Statistics for Level-1 Variables

	European Canadian (n=8960)		Non-European Canadian (n=2689)	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Bullying				
Victimization				
Physical	.36	.65	.40	.70
Verbal	.67	.81	.65	.83
Social	.47	.70	.43	.71
Cyber	.15	.48	.19	.56
General	.49	.75	.47	.77
Bullying				
Perpetration				
Physical	.22	.53	.28	.61
Verbal	.44	.67	.44	.69
Social	.35	.60	.36	.66
Cyber	.12	.44	.15	.53
General	.40	.65	.41	.72
Sex (%)				
Boys	50.2		55	
Girls	49.8		45	
Grade (%)				
ES/MS	65.4		76.9	
HS	34.6		23.1	

ES/MS: Elementary/Middle schools; HS: High schools

Table 5.

Bullying Perpetration and Victimization Prevalence

	Across Schools %	Within Schools % (range)
Bullying Victimization		
Physical	29.9	33.60 (9-62)
Verbal	50.5	51.95 (32-78)
Social	36.9	38.05 (16-64)
Cyber	12.2	11.73 (0-28)
General	37.1	40.04 (19-70)
Bullying Perpetration		
Physical	19.0	19.18 (5-38)
Verbal	37.0	34.91 (12-53)
Social	29.7	28.26 (4-47)
Cyber	9.8	8.55 (0-23)
General	32.5	30.93 (3-57)

Table 6.

HLM Results for Bullying Perpetration

Bullying Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
General	Fixed effects				
	Intercept	0.385(0.012)***	0.422(0.011)***	0.424(0.013)***	0.413(0.011)***
	Individual				
	Sex_c		-0.039(0.007)***	-0.058(0.007)**	-0.039(0.007)***
	Grade		0.063(0.01)***	0.091(0.018)***	0.065(0.01)***
	Physical_vic		0.101(0.01)***	0.1(0.016)***	0.101(0.016)***
	Verbal_vic		0.089(0.016)***	0.108(0.015)***	0.089(0.013)***
	Social_vic		0.163(0.019)**	0.074(0.011)*	0.07(0.01)***
	Cyber_vic		0.163(0.019)*	0.121(0.013)***	0.162(0.019)*
	General_vic		0.114(0.015)***	0.129(0.018)***	0.115(0.016)***
	Ethnicity_c			0.006(0.011)	0.002(0.008)
(continues)					

Table 6. HLM Results for Bullying Perpetration (continued)

Bullying Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
School Level					
	School size		0.00(0)	0.00(0)	0.00(0)
	L2 % minority			-0.001(0.001)	0.001(0.001)**
Interaction	L1 * RL2Min				0.001(0.001)
Random effects					
	Individual	0.443(0.016)***	0.374(0.012)***	0.838(0.011)***	0.42(0.013)***
	School	0.009(0.001)***	0.005(0.001)***	0.004(0.001)**	0.005(0.002)**
ICC		0.019			
Physical	Fixed effects				
	Intercept	0.234(0.008)***	0.243(0.006)***	0.252(0.008)***	0.253(0.009)***
	Individual				
	Sex_c		-0.059(0.006)***	-0.058(0.006)***	-0.058(0.006)***
	Grade		0.026(0.007)***	0.031(0.009)***	0.031(0.007)***
	Physical_vic		0.237(0.018)***	0.237(0.018)***	0.237(0.018)***
	Verbal_vic		0.034(0.01)***	0.034(0.01)***	0.034(0.01)***
(continues)					

Table 6. HLM Results for Bullying Perpetration (continued)

Bullying Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
	Social_vic		0.02(0.011)	0.021(0.012)	0.021(0.011)
	Cyber_vic		0.194(0.02)***	0.192(0.02)***	0.192(0.02)***
	General_vic		0.01(0.015)	0.01(0.011)	0.01(0.011)
	Ethnicity_c			0.014(0.008)	0.006(0.008)
	School Level				
	School size		0.00(0)	0.00(0)	0.00(0)
	L2 % minority			-0.001(0.001)*	0.01(0)**
	Interaction L1 * RL2Min				-0.00 (0)
	Random effects				
	Individual	0.302(0.014)***	0.242(0.011)***	0.798(0.011)***	0.255(0.008)***
Verbal	School	0.009(0.001)**	0.002(0.001)	0.001(0.001)	0.001(0.002)
	ICC	0.01			
	Fixed effects				
	Intercept	0.425(0.012)***	0.465(0.011)***	0.462(0.01)***	0.454(0.01)***
(continues)					

Table 6. HLM Results for Bullying Perpetration (continued)

Bullying Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
Individual					
	Sex_c		-0.025(0.006)***	-0.025(0.006)***	-0.025(0.006)***
	Grade		0.059(0.013)***	0.063(0.012)***	0.072(0.01)***
	Physical_vic		0.127(0.019)***	0.127(0.019)***	0.1275(0.018)***
	Verbal_vic		0.174(0.012)***	0.174(0.012)***	0.174(0.012)***
	Social_vic		0.069(0.013)*	0.07(0.012)***	0.069(0.012)***
	Cyber_vic		0.198(0.02)**	0.197(0.02)***	0.198(0.019)**
	General_vic		0.003(0.015)	0.003(0.015)	0.002(0.015)
	Ethnicity_c			-0.006(0.008)	-0.008(0.008)
School Level					
	School size		0.00(0)*	0.00(0)*	0.00(0)
	L2 % minority			-0.00(0.00)*	0.001(0.001)*
Interaction	L1 * RL2Min				0.001(0.001)
Random effects					

(continues)

Table 6. HLM Results for Bullying Perpetration (continued)

Bullying Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
Social	Individual	0.447(0.018)***	0.367(0.014)***	0.815(0.012)***	0.458(0.014)***
	School	0.007(0.002)***	0.003(0.002)	0.003 (0.001) *	0.003(0.003)**
	ICC	0.015			
	Fixed				
	Intercept	0.339(0.011)***	0.367(0.008)***	0.372(0.008)***	0.372(0.009)***
	Individual				
	Sex_c		0.029(0.006)***	0.029(0.005)***	0.029(0.006)***
	Grade		0.04(0.008)***	0.04(0.009)***	0.045(0.008)***
	Physical_vic		0.079(0.014)***	0.079(0.014)***	0.079(0.014)*
	Verbal_vic		0.058(0.01)***	0.058(0.01)***	0.058(0.01)***
	Social_vic		0.156(0.012)***	0.156(0.012)***	0.156(0.012)***
	Cyber_vic		0.223(0.023)***	0.223(0.023)***	0.223(0.023)***
	General_vic		-0.003(0.013)	-0.003(0.013)	-0.003(0.013)
	Ethnicity_c			0.009(0.007)	0.011(0.007)
	School Level				

(continues)

Table 6. HLM Results for Bullying Perpetration (continued)

Bullying Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
Cyber	School size		0.00(0)	0.00(0)	0.00(0)
	L2 % minority			0.002(0.001)**	0.00 (0.001)
	Interaction L1 * RL2Min				0.00(0)
	Random effects				
	Individual	0.377(0.015)***	0.319(0.011)***	0.841(0.012)***	0.375(0.009)***
	School	0.007(0.001)***	0.003(0.001)	0.003(0.002)	0.003(0.002)*
	ICC	0.017			
	Fixed effects				
	Intercept	0.122(0.007)***	0.146(0.005)***	0.154(0.006)*	0.156(0.006)***
	Individual				
	Sex_c		-0.039(0.013)**	-0.013(0.005)*	-0.013(0.005)*
	Grade		0.038(0.006)***	0.041(0.007)***	0.045(0.005)*
	Physical_vic		0.073(0.013)***	0.073(0.014)***	0.073(0.013)***
	Verbal_vic		0.015(0.008)	0.015(0.009)	0.015(0.008)*
	Social_vic		0.023(0.01)*	0.024(0.01)*	0.024(0.01)*
					(continues)

Table 6. HLM Results for Bullying Perpetration (continued)

Bullying Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
	Cyber_vic		0.39(0.01)***	0.388(0.022)***	0.388(0.022)***
	General_vic		-0.012(0.01)	-0.011(0.01)	-0.011(0.01)
	Ethnicity_c			0.014(0.004)**	0.015(0.005)**
	School Level				0.00(0)
	School size		0.00 (0)	0.00(0)	
	L2 % minority			0.001(0)	0.001(0.001)
	Interaction L1 * RL2Min				0.00 (0)
Random effects					
	Individual	0.213(0.014)***	0.163(0.01)***	0.759(0.02)***	0.156(0.01)***
	School	0.002(0.001)***	0.00(0)	0.0(0.002)	0.00(0.002)
	ICC	0.01			
Model comparison					
	change -2LL(df)		13478.86(60)***	34.48(10)***	2.05(5)

*** $p < .001$, ** $p < .01$, * $p < .05$. ICC=Intraclass Correlation Coefficient; sex_c=Sex centered; Physical_vic=Physical victimization; Verbal_vic=Verbal victimization; Social_vic=Social victimization; Cyber_vic=Cyber victimization; General_vic=General victimization; Sex centered; Physical_perp=Physical perpetration; Verbal_perp=Verbal perpetration; Social_perp=Social perpetration; Cyber_perp=Cyber perpetration; General_perp=General perpetration; Ethnicity_c=Ethnicity centered; L1= Level 1; L2=Level 2; L1*RL2Min=Interaction between Level-1 ethnicity and Level-2 proportion minority; change

-LL=Change in log-likelihood ratio. *Note.* Change in -2LL tested using the Satorra-Bentler scaled Chi-Square for robust standard errors

Table 7.

HLM Results for Bullying Victimization

Victimization Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
General	Fixed effects				
	Intercept	0.513(0.015)***	0.456(0.011)***	0.442(0.011)***	0.456(0.012)***
	Individual				
	Sex_c		0.027(0.008)**	0.026(0.008)**	0.026(0.008)**
	Grade		-0.083(0.011)***	-0.087(0.01)***	-0.086(0.01)***
	Physical_perp		0.097(0.022)***	0.098(0.022)***	0.097(0.022)***
	Verbal_perp		0.098(0.015)***	0.098(0.015)***	0.098(0.016)***
	Social_perp		0.047(0.017)**	0.047(0.017)*	0.046(0.017)**
	Cyber_perp		0.055(0.027)*	0.057(0.027)***	0.056(0.027)*
	General_perp		0.226(0.021)***	0.226(0.021)***	0.227(0.021)***
	Ethnicity_c			-0.019(0.001)	-0.009 (0.01)
					(continues)

Table 7. HLM Results for Bullying Victimization (continued)

Victimization Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
Physical	School Level				
	School size		0.00 (0)**	0.00 (0)**	0.00 (0)*
	L2 % minority			-0.001(0.001)*	-0.002(0.001)*
	Interaction	L1 * RL2Min			-0.002(0.001)**
	Random effects				
	Individual	0.548(0.019)***	0.482(0.02)***	0.482(0.02)***	0.381(0.02)***
	School	0.014(0.003)***	0.007(0.002)**	0.006(0.002)**	0.007(0.002)**
	ICC	0.026			
	Fixed effects				
	Intercept	0.401(0.013)***	0.341(0.01)***	0.34 (0.01)***	0.347(0.011)***
Physical	Individual				
	Sex_c		-0.041(0.07)***	-0.041(0.007)***	-0.041(0.007)***
	Grade		-0.085(0.012)***	-0.089(0.01)***	-0.088(0.011)***
(continues)					

Table 7. HLM Results for Bullying Victimization (continued)

Victimization Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
	Physical_perp		0.305(0.021)***	0.306(0.021)***	0.305(0.021)***
	Verbal_perp		0.08(0.014)***	0.08(0.014)***	0.081(0.014)***
	Social_perp		0.023(0.012)*	0.023(0.012)*	0.022(0.012)
	Cyber_perp		0.105(0.022)***	0.106(0.022)***	0.105(0.022)***
	General_perp		0.081(0.017)***	0.081(0.017)***	0.082(0.017)***
	Ethnicity_c			0.001(0.008)	0.006(0.008)
	School Level				
	School size		0.00 (0.00)*	0.00 (0)**	0.00 (0)**
	L2 % minority			-0.002(0.001)*	-0.002(0.001)*
	Interaction L1 * RL2Min				-0.001(0)*
	Random effects				
	Individual	0.426(0.015)***	0.349(0.016)***	0.349(0.016)***	0.349(0.016)***
	School	0.011(0.002)***	0.004(0.002)	0.003 (0.002)**	0.004(0.00)**
	ICC	0.024			

(continues)

Table 7. HLM Results for Bullying Victimization (continued)

Victimization Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
Verbal	Fixed effects				
	Intercept	0.683(0.015)***	0.452(0.01)***	0.63(0.011)***	0.647(0.012)***
	Individual				
	Sex_c		0.027(0.009)**	0.026(0.009)**	0.026(0.009)**
	Grade		-0.068(0.011)***	-0.07(0.011)**	-0.07(0.011)***
	Physical_perp		0.066(0.026)*	0.067(0.026)**	0.065(0.026)**
	Verbal_perp		0.263(0.016)***	0.263(0.016)***	0.263(0.016)***
	Social_perp		0.07 (0.015)*	0.07(0.015)***	0.069(0.015)***
	Cyber_perp		0.078(0.023)**	0.079(0.023)**	0.078(0.023)**
	General_perp		0.166(0.022)***	0.166(0.022)***	0.166(0.022)***
	Ethnicity_c			-0.017(0.009)	-0.005(0.008)
	School Level				
	School size		0.00 (0)*	0.00 (00)*	0.00 (0)**
	L2 % minority			-0.001(0.001)	-0.002(0.001)*

(continues)

Table 7. HLM Results for Bullying Victimization (continued)

Victimization Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
	Interaction	L1 * RL2Min			-0.002(0.001)***
	Random effects				
	Individual	0.485(0.014)***	0.547(0.013)***	0.547(0.013)***	0.546(0.013)***
	School	0.014(0.003)***	0.006(0.002)**	0.006(0.002)**	0.004(0.002)*
	ICC	0.022			
Social	Fixed				
	Intercept	0.467(0.013)***	0.452(0.01)***	0.432(0.01)***	0.453(0.01)***
	Individual				
	Sex_c		0.075(0.008)***	0.074(0.008)***	0.074(0.008)***
	Grade		-0.021(0.013)	-0.027(0.014)*	-0.026(0.01)
	Physical_perp		0.035(0.017)*	0.037(0.017)*	0.036(0.017)*
	Verbal_perp		0.099(0.014)***	0.099(0.014)***	0.099(0.014)***
	Social_perp		0.195(0.012)***	0.194(0.012)***	0.194(0.012)***
	Cyber_perp		0.106(0.02)***	0.108(0.02)***	0.108(0.02)***

(continues)

Table 7. HLM Results for Bullying Victimization (continued)

Victimization Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
Cyber	General_perp		0.119(0.015)***	0.119(0.015)***	0.119(0.016)***
	Ethnicity_c			-0.013(0.007)	-0.006(0.008)
	School Level				
	School size		0.00 (0)*	0.00 (0)**	0.00 (0)**
	L2 % minority			0.002(0.001)**	-0.002(0.001)**
	Interaction L1 * RL2Min				-0.001(0)***
	Random effects				
	Individual	0.485(0.014)***	0.414(0.11)***	0.414(0.011)***	0.414(0.011)***
	School	0.01(0.003)***	0.005(0.003)	0.003(0.003)	0.004(0.003)
	ICC	0.019			
	Fixed effects				
	Intercept	0.158(0.007)***	0.156(0.005)***	0.163(0.006)***	0.168(0.006)***
	Individual				
	Sex_c		0.025(0.006)***	0.025(0.006)***	0.025(0.006)***

(continues)

Table 7. HLM Results for Bullying Victimization (continued)

Victimization Type	Covariates	Model 1 Intercept only/variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
	Grade		-0.012(0.005)**	-0.013(0.005)**	-0.013(0.005)*
	Physical_perp		0.055(0.018)*	0.055(0.018)**	0.054(0.018)**
	Verbal_perp		0.03(0.012)*	0.03(0.012)**	0.031(0.012)**
	Social_perp		0.048(0.011)***	0.048(0.011)***	0.048(0.011)***
	Cyber_perp		0.413(0.023)***	0.412(0.023)***	0.412(0.022)***
	General_perp		0.029(0.011)*	0.029(0.011)*	0.029(0.011)**
	Ethnicity_c			0.011(0.005)*	0.014(0.005)**
	School Level				
	School size		0.00 (0.00)	0.00 (0)	0.00 (0.)**
	L2 % minority			-0.001(0)	-0.001(0.001)**
	Interaction L1 * RL2Min				-0.001(0)
	Random effects				
	Individual	0.245(0.011)***	0.187(0.009)***	0.187(0.009)***	0.187(0.009)***
	School	0.002(0.001)***	0.001(0)*	0.001(0)*	0.001(0)*

(continues)

Table 7. HLM Results for Bullying Victimization (continued)

Victimization Type	Covariates	Model 1 Intercept only/ variance	Model 2 Control Variables	Model 3 Ethnicity	Model 4 Interactions ethnicity x % min
	ICC	0.009			
	Model comparison				
	change -2LL(df)	df	11531.75 (60)***	40.85(10)***	28.98(5)***

*** $p < .001$, ** $p < .01$, * $p < .05$. ICC=Intraclass Correlation Coefficient; sex_c=Sex centered; Physical_vic=Physical victimization; Verbal_vic=Verbal victimization; Social_vic=Social victimization; Cyber_vic=Cyber victimization; General_vic=General victimization; Sex centered; Physical_perp=Physical perpetration; Verbal_perp=Verbal perpetration; Social_perp=Social perpetration; Cyber_perp=Cyber perpetration; General_perp=General perpetration; Ethnicity_c=Ethnicity centered; L1= Level 1; L2=Level 2; L1*RL2Min=Interaction between Level-1 ethnicity and Level-2 proportion minority; change -LL=Change in log-likelihood ratio. *Note.* Change in -2LL tested using the Satorra-Bentler scaled Chi-Square for robust standard errors

Chapter 5 – General Discussion

School bullying among ethnic majority and minority youth is a complex problem that has been largely overlooked in peer relations research. Attempts to address the role of ethnicity as a risk factor in bullying have yielded inconsistent findings, which suggest that ethnic differences are a multifaceted issue that goes beyond descriptive demographic effects. Researchers have addressed ethnicity in the bullying literature in two major ways: (1) some have examined demographic differences between ethnic majority minority youth by comparing bullying prevalence rates based on Census-driven self-categorization ethnic group membership (e.g., Bosacki et al., 2006; Juvonen, Nishina, & Graham, 2000; Sontag, Clemans, Graber, & Lyndon, 2011; Undheim & Sund, 2010), (2) others have focused on contextual effects and ethnic diversity as a contributing factor in group-based bullying (Graham & Juvonen, 2002; Hanish & Guerra, 2000; Larochette et al., 2010; Vervoort, Scholte, & Overbeek, 2010). In order to address the gap in the literature and the largely inconsistent findings in bullying between ethnic groups, two meta-analyses were conducted based on ethnic group membership, bullying and peer victimization. Considering the variability in individual-level ethnicity and bullying, in the third dissertation study, the role of school ethnic composition in bullying between ethnic majority and minority youth in Canadian schools was assessed.

Studies 1 and 2 are the first meta-analyses in the field to examine ethnic group membership, peer victimization and bullying perpetration between ethnic majority and minority youth, spanning twenty years of research. In both studies, comparisons between ethnic groups were assessed by including ethnic majority and minority youth as originally sampled in research, as well as comparisons between White (e.g., European, European

American, European Canadian) and multiple visible minority groups (i.e., Black, Hispanic, Asian, Aboriginal and Biracial). In addition to providing the first systematic analyses on ethnicity and bullying, the strengths of the meta-analyses extend to the assessment of multiple methodological moderators which explained a significant amount of variability in the results. Methodological moderators included measurement type (e.g., questionnaire, peer nominations), age of participants, year of study, presence or absence of a bullying definition, and country (Europe, US, Canada).

In Study 1, ethnic differences in peer victimization as measured by peer aggression and bullying instruments were examined. Because of the large variability in measurement approaches, a broad range of measures was included that captured peer victimization, harassment, and bullying across ethnic groups and across countries. In Study 2, a similar approach to Study 1 was used, with the exception of this time focusing on bullying perpetration. Results from the main analyses indicated small and non-significant differences in effect sizes on the differences between groups. Moderator analyses, however, yielded several statistically significant results across comparisons. In particular, presence/absence of a definition of bullying, measures such as peer nominations, one-to-four items, Olweus' Bully/Victim Questionnaire, and country differences, emerged as significant moderators across most ethnic group comparisons. Black students reported more bullying perpetration and peer victimization than White students toward later years of publication, in unpublished studies, and studies without a definition of bullying, and in childhood (for peer victimization). Similarly, Hispanic students reported more bullying and peer victimization in earlier years of publication and in childhood (for peer victimization). Asian students reported more peer victimization than White students in earlier years of publication, and

Aboriginal students reported more bullying and peer victimization than White students in studies without a definition of bullying and in studies using one-to-four item measures (for bullying perpetration). Lastly, Biracial students reported more peer victimization in earlier years of publication, in published studies, in studies using one-to-four item measures, and in the US. Overall, White students reported more bullying perpetration and peer victimization across most comparisons and moderator variables.

The results from both meta-analyses suggest that ethnicity assessed as a demographic variable, without taking into account contextual or immigration-related variables such as acculturation or ethnic identity, is not a strong factor in bullying and peer victimization. Although individual studies across countries and samples indicate that either ethnic majority or minority youth are at higher risk for bullying perpetration and victimization (e.g., Abada et al., 2008; Bradshaw et al., 2009; Craig et al., 2000; Demaray & Malecki, 2003; Monks et al., 2008; Mooney et al., 1991; Seals & Young, 2003; Spriggs et al., 2007; Verkuyten & Thijs, 2002) these effects were diminished in the present meta-analyses. Nevertheless, it appears that the methodological approaches used in bullying and peer victimization play an important role in disentangling differences between groups.

Previous studies indicated that measures assessing bullying and victimization via general questions are less sensitive at assessing prevalence rates in bullying and victimization, regardless of ethnicity, whereas measures that provide specific examples of bullying behaviour, such as verbal or physical, are better at capturing students' experiences (Sawyer et al., 2008; Vaillancourt et al., 2010). In addition, different frequency response scales and divergence between self-reported questionnaires and peer nominations suggest that prevalence rates of bullying and peer victimization vary significantly across measures.

Although self-reports are more appropriate for assessing subtle and covert types of bullying and peer victimization, peer nominations provide more objective information on more overt forms (Archer & Coyne, 2005; Scholte, Burk, & Overbeek, 2013). Results from the meta-analyses indicated that certain measurement approaches, such as peer nominations, questionnaires, and particularly Olweus' Bully/Victim Questionnaire, would most consistently yield differences in bullying between White and non-White students (e.g., Black). Although effect sizes were moderate in magnitude, they were among the strongest obtained in the meta-analyses.

An examination of specific subtypes of bullying behaviour indicated no differences between ethnic groups. Accordingly, subtypes were converted into one composite score in both meta-analyses. One exception, however, was ethnic peer victimization, which assesses specifically students' experiences of victimization targeting their ethnicity and cultural background. Results from Study 1 indicated that all ethnic minority youth experienced this form of victimization more than ethnic majorities. This finding provides significant insights into ethnic minority students' reports of peer victimization and has further implications for the assessment of bullying. It appears that ethnic minority students are more likely to report experiencing bullying when explicitly asked about being targeted because their ethnicity, suggesting that they are more likely to report bullying and aggressive behaviour compared to measures that assess general forms of bullying and victimization without a focus on ethnicity.

Research also indicates that students' definitions and conceptualizations of bullying differ from the definitions used in research or adults across countries (Naylor et al., 2006; Smith et al., 2002; Smorti et al., 2003; Vaillancourt et al., 2008), thus ethnic minority

students and particularly new immigrants may be less familiar with the bullying definitions and measures used in European and North American research. Thus, the inclusion of ethnicity-related items may capture ethnic minority students' experiences better than general questions, as ethnic bullying and victimization appear to emerge as a separate subtype of aggressive behaviour. In conjunction with the construct of ethnic peer victimization, the combination of bullying and racial discrimination concepts may further unravel differences between ethnic majorities and minorities. Visible minority youth report more being victims of racial discrimination (e.g., Greene, Way, & Pahl, 2006), and although assessment of the latter resembles that of bullying in some studies (Bellmore, Nishina, You, & Ma, 2012; Dubois, Burk-Braxton, Swenson, Tavendale, & Hardesty, 2002; Fisher, Wallace, & Fenton, 2000), the two are rarely considered simultaneously in research.

In the present meta-analyses, ethnicity emerged as a significant moderator in childhood for both Black and Hispanic youth, which indicates developmental trends consistent with those observed in bullying research. Both general bullying behaviour and ethnic prejudice are more prevalent in childhood compared to adolescence, which may be attributable to children's cognitive development, as well as the decrease in explicit prejudicial behaviour in late childhood and adolescence (Levy & Killen, 2008; Raabe & Beelmann, 2011). Lastly, we found few differences in bullying and peer victimization across countries. The general societal context in which bullying takes place influence students' experiences and may be further contingent upon attitudes toward immigrants, xenophobia and discrimination across countries.

The meta-analyses suggest that ethnicity alone is not sufficient to account for ethnic differences in bullying and peer victimization. Researchers have relied on in-group/out-

group attitudes stemming from social identity and intergroup theories to explain the role of ethnicity in peer relationships (Killen, Mulvey, & Hitti, 2013; Nesdale, 2008; Tarrant, 2002). Based on these theoretical approaches, students tend to favour their ethnic in-group more than ethnic out-groups, and to exhibit aggressive behaviour when they perceive threat to the in-group's status. Stemming from these approaches, researchers have examined the role of school ethnic composition which may provide a setting for more segregated ethnic group affiliations. According to the ethnic composition hypothesis (Graham, 2006), numerically smaller groups in a school setting are more likely to experience peer victimization compared to larger groups. Research in Europe and the US supports this tenet (e.g., Hanish & Guerra, 2000; Vervoor et al., 2010); however, little research exists on school ethnic composition and bullying between ethnic groups in Canada. Although Canada is a multicultural country, with a large history of immigration, surprisingly few studies have examined ethnicity in bullying research. In Study 3, the role of school ethnic composition in bullying was examined in a large, population-based study of 11,649 children and adolescents in Canada. A particular strength of this study was the assessment of several subtypes of bullying in a sample of ethnic minority students. Previous studies on school ethnic composition and bullying have relied on a composite measure (e.g., Juvonen et al., 2006; Vervoort et al., 2010), therefore lacking the specificity provided across different types of behaviour. Ethnic minority students reported less bullying victimization across all subtypes in schools with a higher proportion of ethnic minority peers. These findings are consistent with previous research elsewhere, although no differences were found in bullying perpetration between majority and minority youth as a function of school ethnic composition. It may be the case that bullying among ethnic minority and majority youth in

Canada occurs intra-ethnically. In addition, Canada is supportive of ethnic minorities and immigrants' integration, thus, bullying between majority and minority youth may not be as pronounced as in countries with more interethnic tension and conflict. Future research is necessary to address the ethnicity of the perpetrator in the context of intergroup bullying.

Limitations

The present studies offer significant implications, however, there are some limitations that should be addressed in future research. Although the meta-analyses included a large number of studies and moderator variables, the availability of research on ethnicity and bullying may have inadvertently under- or over-estimated the results. Ethnicity is almost always included in primary studies as a demographic variable, yet ethnic differences are not consistently reported or published in research. Thus, although Orwin's failsafe number supports the adequacy of our sample size in both meta-analyses, it is possible that several findings, particularly from European countries, could have provided additional differences between ethnic groups. Furthermore, additional factors such as sex and socioeconomic (SES) were not assessed in the meta-analyses because of the lack of information provided in the primary studies. These factors have been shown to account for differences in bullying (e.g., Carbone-Lopez, Esbensen, & Brick, 2010) Tippet & Wolke, 2014), yet little research exists on ethnicity and sex or SES. Lastly, because the ethnicity of the perpetrator was not assessed in primary studies, the results of the meta-analyses are descriptive and not conclusive as to whether bullying occurs intra- or inter-ethnically.

Similar to previous research and the present meta-analyses, we were not able to assess the ethnicity of the bullying perpetrator in Study 3; therefore, it was not possible to examine the extent of inter-ethnic bullying. In addition, immigration-related factors, such

acculturation and generation status, which have been previously shown to account for differences in bullying (e.g., Tse, 2008; Yu, Huang, Schwalberg, Overpeck, & Kogan, 2003) were not included in Study 3. Finally, we did not measure ethnic bullying which is more prevalent among ethnic minority students (e.g., Verkuyten & Thijs, 2002) and could have further provided stronger differences between ethnic majority and minority students.

Future Directions

The present studies offer significant implications for future research. Results from the meta-analyses suggest that there is a need to re-assess the measurement of ethnicity in bullying research. Ethnicity assessed simply as a demographic variable is not an adequate proxy in bullying research and does not offer sufficient insight into ethnic minority students' status, which may influence their bullying experiences. For example, the degree of integration into the host society and ethnic identification with one's heritage culture may account for differences in bullying between youth of different generation levels. Furthermore, the results from the three studies suggest that researchers should expand assessments to include contextual factors and immigration-related variables in bullying, such as acculturation, and inter-ethnic attitudes. Additional implications for measurement pertain to the inclusion of ethnicity-related items in bullying and peer victimization measures and the simultaneous assessment of ethnic discrimination and bullying, as they appear to capture ethnic minority students' victimization experiences. Furthermore, Study 3 was among the first population-based studies in Canada examining bullying and ethnicity at the school-level. Although no differences were found in bullying perpetration, our findings provide support that higher ethnic minority representation in schools may act as a buffer against bullying victimization for ethnic minority students. Future research should examine inter-

and intra-ethnic bullying as the unique multicultural Canadian society may provide a context for less discrimination and victimization of youth.

Implications

Research implications. The findings from the three dissertation studies suggest several methodological implications for future research pertaining to the measurement of ethnicity, bullying, and the role of ethnic diversity in schools. The results of the meta-analyses indicated that ethnicity as a demographic variable is not strongly associated with bullying behaviour. Nevertheless, it cannot be concluded that ethnicity does not play a role in bullying considering the methods by which ethnicity is assessed in research, and the extent to which a true association between bullying and demographics exists. Ethnicity assessed as a descriptive variable is not necessarily indicative of participants' cultural affiliation, attachment, or ethnic identity. Thus, a causal relation with bullying cannot be inferred.

Future research should incorporate aspects of immigration, such as ethnic identity, acculturation, and immigrant status in the assessment of ethnic minorities' experiences with bullying, in order to explore the degree to which immigration plays a role in its incidence. In addition, the measurement of ethnic bullying is of particular significance in examining whether students perceive their bullying and peer victimization experiences to occur because their cultural background. The results of Study 1 indicated stronger effect sizes and differences between White and non-White students when explicitly asked about perceptions of victimization because of their ethnicity; therefore, this form of bullying appears to be a crucial addition to research with ethnically diverse samples. Furthermore, implications regarding the definition and measures of bullying can be inferred from the meta-analyses, as

these variables were significant moderators in the relation between bullying and ethnicity. In particular, it is important to take into account the cultural background and perceptions of bullying in students' heritage cultures, particularly for newcomers, as students may hold different views of what behaviour constitutes bullying. Adaptations of the definition to accommodate immigrant students should be examined in future research as well as the specific measures (i.e., questionnaires, single items) and how these are differentially interpreted by non-White students.

Lastly, an important consideration is the examination of perpetrator's ethnicity, in order to investigate whether bullying takes place intra- or inter-ethnically. Current measurements do not assess the ethnicity of the perpetrator and therefore, we can not deduce that White students bully non-White peers or vice versa. This extends to studies on ethnic diversity and bullying as well. Although at a descriptive level increased ethnic diversity is associated with less bullying victimization among ethnic minorities, it is not known whether this association reflects inter-ethnic relationships. The inclusion of White and non-White student's prejudice and out-group racial bias in future studies may reveal the extent to which children and adolescents consider ethnicity as a factor for bullying behaviour.

Theoretical implications. Research on bullying and ethnicity is generally lacking a consistent theoretical framework to explain for inter-ethnic bullying. Although social identity theories and in-group/out-group attitudes provide a strong initial basis, a more comprehensive approach is needed in order to provide an in-depth explanation for the role of ethnicity in bullying. The incorporation of racial discrimination theories into bullying may be of particular interest as it appears that the measurement of peer ethnic discriminatory behaviour overlaps significantly with bullying behaviour.

Applied implications. Inter-ethnic bullying and particularly the experiences of ethnic minorities have been examined infrequently in the literature. Accordingly, ethnicity-related aspects may not be as commonly included in bullying intervention and awareness programs. Awareness among teachers, parents, and policy-makers should be raised regarding inter-ethnic relationships and the potential risk of ethnic bullying among immigrant youth. Further implications pertain to counselors working with newcomer and ethnic minority youth; the experience of bullying because of one's ethnicity, particularly among those who have newly immigrated to a new country, may further impede psychosocial and school adjustment. Thus, awareness and cultural components to intervention and therapy programs should be considered.

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Appendix A – Studies included in Study 1

Studies Included in the Ethnic Majority-Minority Peer Victimization Meta-Analysis.

Study (1 st author) Year	Country	Publication Type	Age	Measure	Definition	<i>N</i> Majority	<i>N</i> Minority	<i>d</i>
Anderson (2005)	US	2	3	1	1	4185	1159	-.13
Cline (2002)	UK	2	3	1	2	2885	217	-.05
Del Barrio (2006)	EU	1	2	1	1	278	12	-.54
D’Esposito (2006)	US	2	2	1	1	149	84	.28
Fandrem (2010)	EU	1	2	4	1	97	59	-.02
Fandrem (2009)	EU	1	2	4	1	2938	189	.11
Greeff (2008)	S. Africa	2	3	2	1	180	180	.52
Hoglund (2005)	CA	2	2	1	2	268	68	-.24
Holt (2007)	US	1	2	1	2	415	333	.24
Lambert (2008)	UK	1	2	4	2	24388	589	-.14
MMWR (2009)	US	2	2	4	2	1915	962	.33
Monks (2008)	EU	12	2	4	1	523	91	-.12

(continues)

Studies Included in the Ethnic Majority-Minority Peer Victimization Meta-Analysis (continued)

Study (1 st author)	Country	Publication Type	Age	Measure	Definition	<i>N</i> Majority	<i>N</i> Minority	<i>d</i>
Nguy (2004)	Australia	2	2	1	2	179	299	.30
Norris (2008)	US	2	3	1	2	418	262	.02
Pepler (1999)	CA	2	3	1	1	1093		.00
Oliver (2003)	UK	2	3	1	1	469	406	-.18
Siann (1994)	UK	2	2	4	1	498	641	-.13
Sweeting (2001)	UK	1	3	4	2	2148	89	.00
Stanton (2011)	CA	2	3	1	1	455	54	.00
Strohmeier (2011)	EU	1	3	5	1	4957	456	-.26
Unnever (2004)	US	1	2	2	1	1323	1149	.00
Vieno (2009)	EU	1	2	4	1	6245	481	-.13
Wiens (2010)	US	1	2	1	2	950	433	.69
Wolke (2001)	EU	1	2	3	1	3263	652	-.13

(continues)

Canadian and American Studies Included in the Multiple Group Comparison Peer Victimization Meta-Analysis*

Study (1 st author) Year	Publication Type	Age	Measure	Definition	<i>N</i> White	<i>N</i> Black	<i>N</i> Hispanic	<i>N</i> Asian	<i>N</i> Aboriginal	<i>N</i> Biracial	<i>d</i>
<i>United States</i>											
Bailey (2008)	2	2	1	2	128	53	390	16		46	-.10
Bauman (2008)	1	2	1	1	1487	174	1007	67	213		.12
Bellmore (2004)	1	3	3	2	156	467	751	144			.00
Buhs (2010)	1	2	1	2	144		126				-.08
Bungeroth (2011)	2	3	1	2	46		40				.76
Carbone (2010)	1	2	4	2	452	161	610				-.02
Carlyle (2007)	1	2	1	2	49535	15863	1689	2464	570		-.00
Chang (2007)	2	2	1	2	157	406	796	179			-.42
Cornell (2011)	1	2	1	1	278	83	48	22			.26
Dare (2011)	2	2	1	2	1202	83	35	80		53	.40
DeVoe (2007)	2	2	4	2	4595	1037	1410				.11
Engert (2001)	2	2	3	1	35	163	135	12			-.08
Esbensen (2009)	1	2	4	2	391	134	436				.00
Demaray (2003)	1	2	1	2	19	44	348	12			.16

(continues)

Canadian and American Studies Included in the Multiple Group Comparison Peer Victimization Meta-Analysis (continued)

Study (1 st author)	Publication Type	Age	Measure	Definition	<i>N</i> White	<i>N</i> Black	<i>N</i> Hispanic	<i>N</i> Asian	<i>N</i> Aboriginal	<i>N</i> Biracial	<i>d</i>
Farhat (2010)	1	2	4	2	3519	1573	1869				.10
Felix (2011)	1	2	1	2	50107	7043	60717	12492	1820		-.06
Felix (2009)	1	2	1	2	21321	2496	30487	8529	968		-.02
Frerichs (2009)	2	2	1	2	683	52	42	37	10	58	-.12
Gabel (2008)	2	2	1	2	4449	169	142	823			-.11
Glew (2005)	1	3	4	2	1285	964	382	833	64		-.27
Goldammer (2011)	2	2	4	2	83058	65658	12296	5878			-.28
Golshani (2004)	2	2	1	2	188	511	910	212			-.34
Green-Grief (2011)	1	2	1	1	150	717	560	142			.15
Hanish (2000)	1	3	3	2	352	782	822				.00
Herzig (2011)	2	2	1	2	137	54	54	3			.00
Iyer (2006)	2	1	5	2	143		149				.05
Juvonen (2000)	1	2	1	2	32	44	56	29			.00
Juvonen (2003)	1	2	3	2	188	511	910	212			.12
Green (2007)	2	2	1	2	1110		1016				.20

(continues)

Canadian and American Studies Included in the Multiple Group Comparison Peer Victimization Meta-Analysis (continued)

Study (1 st author)	Publication Type	Age	Measure	Definition	<i>N</i> White	<i>N</i> Black	<i>N</i> Hispanic	<i>N</i> Asian	<i>N</i> Aboriginal	<i>N</i> Biracial	<i>d</i>
Kerr (2011)	1	2	1	2	581	771					.37
Kochenderfer-Ladd (2002)	1	1	4	2	275	62					.00
Klein (2010)	1	1	4	1	4496	1587	381	226	84		.01
Lieske (2007)	2	3	1	2	127		146				-.41
Mahlwerwein (2010)	2	2	2	1	128	71	1994		53		.52
Menzer (2010)	1	2	3	2	396			120			.05
LaGreca (2005)	1	2	1	2	73	38	282				.00
Moore (2002)	2	2	1	1	337	2	10	19	1		.86
Nansel (2001)	1	2	4	1	9007	2602	3101				.33
Nishina (2002)	2	3	4	2	58		80	19		26	-1.16
Peguro (2011)	1	2	3	2	5820	1630	1730	1190			.17
Petrosino (2010)	2	2	1	2	1193	221	263				.00
Polasky (2010)	2	1,2	1	2	157		160				.19
Prinstein (2001)	1	2	1	2	123	60	282				.00
Putallaz (2007)	1	1	1, 3	2	119		119				.37

(continues)

Canadian and American Studies Included in the Multiple Group Comparison Peer Victimization Meta-Analysis (continued)

Study (1 st author)	Publication Type	Age	Measure	Definition	<i>N</i> White	<i>N</i> Black	<i>N</i> Hispanic	<i>N</i> Asian	<i>N</i> Aboriginal	<i>N</i> Biracial	<i>d</i>
Raskauskas (2010)	1	1	4	2	19	15	44	5			.00
Reuter-Rice (2006)	2	2	1	1	119	98	998				-.09
Rueger (2011)	1	3	1	2	463	44		183	79	79	-.46
Sawyer (2008)	1	1,2,3	1	1	15548	4196	1057	782			.37
Seals (2003)	1	2	1	2	80	359					-.00
Seay (2010)	2	1	1	2	239		80				.55
Stein (2007)	1	2	4	2	663	525	691138		83	635	.00
Spriggs (2007)	1	2	1	1	6466	2262	2305				.24
Srabstein (2011)	1	2	1	1	4451	1262	2533	813	142		.42
Storch (2003)	1	1	1	2	5	28	144	8			.00
Tharp-Taylor (2009)	1	2	4	2	402	32	245	68		127	-.25
Turner (2011)	1	3	1	2	1649	600	570				.37
Urbanski (2007)	2	3	1	1	4426	929	1083	289		39	.00
Waasdorp (2011)	1	3	1	2	1124	183	67	43			.32
Storch (2005)	1	2	1	2	165	6	14	4			.00

(continues)

Canadian and American Studies Included in the Multiple Group Comparison Peer Victimization Meta-Analysis (continued)

Study (1 st author)	Publication Type	Age	Measure	Definition	N White	N Black	N Hispanic	N Asian	N Aboriginal	N Biracial	d
Windle (2010)	1	1	1	2	157	236	205				-.15
Woolley (2011)	2	2	4	1	254	74	666	117	29		.05
<i>Canada</i>											
Hersh (2002)	2	2	4	1	114	85		172			.00
Larochette (2010)	1	3	4	2	3319	59		166	74		-.31
Larochette (2009)	2	2,3	2	2	624	73		83			-.49
Park (2005)	2	1,2	4	1	333			397			.95
Tse (2008)	2	1,2	2	2	168			304			.19
Vaillancourt SS	2	1,2	1	1	9100	642		1497	345	102	.08
Vaillancourt MT	2	1	4	1	663	42	18	76	18		.95
Van Blyderveen (2003)	2	2	4	2	11252		234	3014	1482		.00
Wong (2009)	2	2	1	1	29	57		169			.19

European Studies Included in the Multiple Group Comparison Peer Victimization Meta-Analysis

Study	Type	Age	Measure	Definition	<i>N</i> White	<i>N</i> Turkish	<i>N</i> F.Yugoslavian	<i>N</i> Asian	<i>N</i> Arab	<i>d</i>
Agirdag (2011)	1	3	4	2	1243	331	450		396	.26
Boulton (1995)	1	1	3	1	103			53		-.06
Junger-Tas (1999)	2	3	1	1	273	67			86	.14
Moran (1993)	1	2	Other	1	33			33		.07
Pop (2010)	2	3	n/a	2	409	148				-.09
Stefanek (2011)	1	2	4	2	747	221	302			.35
Strohmeier (2003)	1	2	3	1	324	126	80			.34
Strohmeier (2008)	1	3	1,3	1	107	61	83			.53
Verkuyten 2002)	1	2	4	2	295	158				-.64
Verkuyten (2002)	1	2	4	2	1641	612	463			.00
<i>Other Country</i>										
Liang (2007)	1	3	4	2	686	2139		1563 (biracial)		.10

* not all studies are presented in the multiple group analyses.

Publication: 1=Published, 2=Unpublished; Age: 1=Childhood, 2=Adolescence, 3=Crossing ranges;

Measure: 1=Questionnaire, 2=Olweus, 3=Peer, 4=1-4 items, 5=Multiple; Definition: 1=Yes, 2=No

Appendix B – Studies included in Study 2

Studies Included in the Ethnic Majority-Minority Bullying Perpetration Meta-Analysis.

Study (1 st author)	Country	Publication Type	Age	Measure	Definition	<i>N</i> Majority	<i>N</i> Minority	<i>d</i>
D'Esposito (2006)	US	2	2	1	1	149	84	-.59
Fandrem (2010)	EU	1	2	4	1	97	59	-.20
Fandrem (2009)	EU	1	2	4	1	2938	189	-.22
Holt (2007)	US	1	2	1	2	415	333	-.13
Junger-Tas (1999)	EU	2	2	1	1	1624	281	.13
Lambert (2008)	UK	1	2	4	2	24388	589	-.17
MMWR (2009)	US	2	2	4	2	1915	962	-.15
Nguy & Hunt (2004)	Australia	2	2	1	2	179	299	.30
Norris (2008)	US	2	3	1	2	405	291	.06
Poteat (2010)	US	1	3	1	2	162	128	-.13

(continues)

Country: CA=Canada; US=USA; European=EU; Publication: 1=Published, 2=Unpublished;
 Age: 1=Childhood, 2=Adolescence, 3=Crossing ranges; Measure: 1=Questionnaire, 2=Olweus,
 3=Peer, 4=1-4 items, 5=Multiple; Definition: 1=Yes, 2=No

Studies Included in the Ethnic Majority-Minority Bullying Perpetration Meta-Analysis (continued).

Study (1 st author)	Publication Type	Age	Measure	Definition	<i>N</i> White	<i>N</i> Black	<i>N</i> Hispanic	<i>N</i> Asian	<i>N</i> Aboriginal	<i>N</i> Biracial	<i>d</i>
<i>United States</i>											
Barbosa (2009)	1	2	4	1	5142	1575		488	141		-.07
Carlyle (2007)	1	2	1	2	49535	15863	1689	2464	570		-.19
Dare (2011)	2	2	1	2	1208	82	40	83		68	-.24
Demaray (2003)	1	2	1	2	19	44	348	12			.18
Engert (2001)	2	2	3	1	35	163	140	12			-.78
Farhat (2010)	1	2	4	2	3519	1573	1869				-.11
Glew (2005)	1	3	4	2	1285	964	276	833	64		-.29
Goldammer (2011)	2	2	4	2	83058	65658	12296	5878			.26
Juvonen (2003)	1	2	3	2	188	511	910	212			-.07
Mahlwerwein (2010)	2	2	2	1	127	69	1973		52		-.01
Seals (2003)	1	2	1	2	82	359					.15
Spriggs (2007)	1	2	1	1	6466	2262	2305				-.09
Srabstein (2011)	1	2	1	1	4451	1252	2633	813	142		.60
Thurfors (2007)	2	2	1	1	258	93					-.31

(continues)

Studies Included in the Ethnic Majority-Minority Bullying Perpetration Meta-Analysis (continued).

Study (1 st author)	Publication Type	Age	Measure	Definition	N White	N Black	N Hispanic	N Asian	N Aboriginal	N Biracial	<i>d</i>
Woolley (2011)	2	2	4	1	256	74	668	120	29		-.28
<i>Canada</i>											
Larochette (2010)	1	2	4	2	3319	59		232	74		-.34
Larochette (2009)	2	2,3	2	2	624	32		124			-.09
Vaillancourt SS	2	1,2	1	1	9100	642		1497	345	206	-.02
Vaillancourt MT	2	1	4	1	730	54	19	82	25		-.12
<i>Europe</i>											
Boulton (1995)	1	2	3	1	103			53			-.28
Moran (1993)	1	3	5	1	33			33			.12
Pop (2010)	2	n/a	1,3	2	409	148					.07
Stefanek (2011)	1	2	4	2	747	221	302				.11
Strohmeier (2003)	1	2	3	1	326	126	80				.60
Strohmeier (2008)	1	2	1, 3	1	107	61	83				.24
<i>Other Country</i>											
Liang (2007)	1	2	4	2	686	2139		563		1563	-.04

Country: CA=Canada; US=USA; European=EU; Publication: 1=Published, 2=Unpublished; Age: 1=Childhood, 2=Adolescence, 3=Crossing ranges; Measure: 1=Questionnaire, 2=Olweus, 3=Peer, 4=1-4 items, 5=Multiple; Definition: 1=Yes, 2=No

Appendix C – Consent Forms

At (name of school) we continue to work on making school a safe and inviting place for you to learn. In order to do an even better job of this we would like to know about the things that happen at school that may affect how safe or unsafe you feel.

The survey that I am going to ask you to complete asks questions about how safe you feel at school, whether you have experienced bullying or have been a bully, as well as questions about what you have seen happening to other students in our school. If any of the questions make you feel uncomfortable or upset, you may stop answering at any time. **You will notice that you are not asked to write your name on the survey, only a secret code, so no one else will know your answers.** Please be as honest as you can.

All of the information we collect from this survey will be used to help our school become an even safer place to learn, to prevent bullying from happening and to deal more successfully with students who engage in bullying others. Here is a definition of bullying which may help you.

We say a student is being bullied when another student, or group of students say nasty things to him or her. It is also bullying when a student is hit, kicked, threatened, locked inside a room, sent nasty notes, when people don't talk to him or her, and things like that. These things may take place frequently and it is difficult for the student being bullied to defend him or herself. It is also bullying when a student is teased repeatedly in a negative way. It is not bullying when two students of about the same strength quarrel or fight.

This definition is also written down within the survey package so you may want to refer to it again as you work through the questions.

The survey will take about 30 minutes to complete. If you don't understand a question, please raise your hand and I will come and help you. I am also going to give you a hand out with information about where you can go to get help if someone is bullying you or you feel unsafe at school. Please keep this in a safe place.

Participation in this survey is voluntary. If you are sitting here, your parents have said that it is okay for you to answer the questions. If you do not wish to complete the Survey, or if you want to stop filling it out for any reason, you may work quietly at your computer/desk until the others are finished.

Parent Information Letter

Dear Parent,

At (name of school) we are always working to make our school a safe and inviting learning environment for both students and staff. One way that we can measure our efforts is to ask students and staff about their perceptions of safety and school climate from time to time. The Hamilton-Wentworth District School Board, in partnership with the Hamilton Coalition for Prevention of Bullying and McMaster University, has developed a Safe Schools Survey that has been approved for use for this purpose.

This survey asks questions about safety, bullying and victimization. As well as, for grades 7 – 12, questions about violence and substance abuse. Your child/youth will be asked to complete this brief survey during school hours. We estimate that it will take about 30 minutes to complete. Rather than putting their name on it, completed surveys will be assigned a unique identifier (a number and letter code that only your child will know) so that we can match up their anonymous responses with any future Safe Schools Surveys that they may complete. His/her teacher may fill in a similar survey so that we can gather perceptions about safety and bullying from several sources.

The information that your child provides will be combined with that of other students and will be stored securely in a central database within our board. The findings will be used to produce reports for our school that will help us to plan or revise our Safe School initiatives. In addition, grouped staff and student responses on the survey will be shared with our partners at McMaster University, allowing us to compare ratings of school climate across the Hamilton community over time.

No risks are anticipated for participants in the survey, but students may skip questions or can withdraw entirely if the items in any way bother them.

Should you have any concerns, if you would like to view the survey, or if you do not wish your child/youth to participate, please contact your school principal or Lesley Cunningham in Social Work Services (905-527-5092, x2780).

Thank you very much for your continued interest in our school and for helping us to do our best to maintain a safe and respectful environment for learning.

Sincerely,

Principal of School

High Risk Protocol for Safe Schools Survey

Let's Stop Bullying!

Some Things You Can Do...

Bullying is hurting someone by hitting or yelling at them, it is also saying nasty things, writing hurtful messages on the internet, and leaving others out of games or activities.

If you have been bullied at school or think that you are unsafe in any way, you should tell a trusted adult about what is happening to you. **It is really hard to deal with these things on your own.** You could talk to your parent or another relative, a trusted adult friend, a teacher, principal, vice-principal, or guidance counsellor in your school. Any of these adults can then work with you to help you to figure out a way to stop the bullying and keep you safe.

If you are behaving like a bully, or are hanging out with others who are bullying, then you should also talk to someone who can help you stop what you are doing or what you see happening to others. As another student has said “**You have the right to not like someone but you don't have the right to make someone not like himself or herself**”.

If you don't wish to talk to anyone at home or at school you might want to call the **Kids Help Phone at 1-800-668-6668**. Then you can get some help without telling anyone your name.

Together let's stop the bullying!

**Lesley Cunningham
Social Work Services
HWDSB**

Appendix D – Safe Schools Survey

Note: The first 10 questions, with the exception of number 8, are required.

Student Information

What colour are your eyes?

(Click here to choose)

What is the first letter of your first name? For example, if your name is Sara, the first letter of your name is S.

In which month were you born?

(Click here to choose)

What is the first letter of your mother's first name? For example, if your mother's name is Sandra, then you would select S. If you don't have a mother, think of the adult in your life who is most like a parent to you (father, aunt, grandmother).

(Click here to choose)

Are you:

☐ Female

☐ Male

What is the last letter of your last name? For example, if your last name is Jones, the last letter is S.

(Click here to choose)

What is the last digit in the day of the month that you were born? For example, if you were born on the 15th day of the month, it would be 5. If you were born on the 21st, it would be 1.

(Click here to choose)

Remember, all responses to this questionnaire are anonymous. But we do want to know something about the students who complete this survey, so please answer the following questions.

What school do you go to?

(Click here to choose)

What grade are you in?

(Click here to choose)

How old are you?

(Click here to choose)

People sometimes think about themselves in terms of race or the colour of their skin. If you feel comfortable identifying yourself in this way it may help us to find out if this is one of the reasons students are bullied. You do not have to answer this question if you do not wish to do so. (Check more than one if appropriate.)

- ☐ African/Caribbean (Black)
- ☐ Asian (Chinese, Japanese, Vietnamese, Korean, etc.)
- ☐ Caucasian (White)
- ☐ First Nations (Native, Indian, Aboriginal)
- ☐ South Asian (Indo-Canadian, East Indian, Pakistani, etc.)
- ☐ Other (please describe)
- ☐ I don't know

Safe School Questions

1. During the past 3 months, I have felt safe at this school.

- ☐ All of the time
- ☐ Most of the time
- ☐ Some of the time
- ☐ Rarely
- ☐ Never

2. If you have felt unsafe, please indicate particular places/times during the past 3 months, where you have

- ☐ Felt unsafe at this school.
- ☐ Classroom
- ☐ Lunchroom/cafeteria
- ☐ Washroom
- ☐ Change room
- ☐ Hallway
- ☐ On my way home from school
- ☐ On my way to school
- ☐ During class ☐ During intramurals
- ☐ On the bus
- ☐ During breaks/recess inside
- ☐ During breaks/recess outside
- ☐ At the front of the school
- ☐ At the back of the school
- ☐ In the parking lot
- ☐ Bus loading area
- ☐ Other

Bullying

Bullying Definition: We say a student is being bullied when another student, or a group of students say nasty and unpleasant things to him or her. It is also bullying when a

student is hit, kicked, threatened, locked inside a room, sent nasty notes, when people don't talk to him or her and things like that. These things may take place frequently and it is difficult for the student being bullied to defend him/herself. It is also bullying when a student is teased repeatedly in a negative way. But it is not bullying when two students of about the same strength quarrel or fight.

Using the definition above please answer the following questions.

3. How often have you been bullied at this school in the last 3 months?

- ☐ Never (It has not happened in the past 3 months)
- ☐ A few times (It has happened only a few times in the past 3 months)
- ☐ Once in a while (It happened once in a while in the past 3 months)
- ☐ Once a week (It happened about once a week in the past 3 months)
- ☐ Several times a week (It happened several times a week in the past 3 months)

4. How often have you been bullied at this school by being left out and you end up being alone at recess or lunch in the past 3 months?

- ☐ Never (It has not happened in the past 3 months)
- ☐ A few times (It has happened only a few times in the past 3 months)
- ☐ Once in a while (It happened once in a while in the past 3 months)
- ☐ Once a week (It happened about once a week in the past 3 months)
- ☐ Several times a week (It happened several times a week in the past 3 months)

5. How often have you bullied other students at this school in the past 3 months?

- ☐ Never (It has not happened in the past 3 months)
- ☐ A few times (It has happened only a few times in the past 3 months)
- ☐ Once in a while (It happened once in a while in the past 3 months)
- ☐ Once a week (It happened about once a week in the past 3 months)
- ☐ Several times a week (It happened several times a week in the past 3 months)

Bullying Examples: *Because bullying takes many forms we are also interested in knowing about your perceptions of how often these different types of bullying occur in your school.*

- *Physical bullying: When someone hits, shoves, kicks, spits, or beats up on others*
- *Verbal bullying: Name-calling, mocking, hurtful teasing, threatening, etc.*
- *Social bullying: Excluding others from the group, gossiping or spreading rumours about others, setting others up to look foolish, making sure others don't associate with the person*
- *Computer bullying: Using the computer or e-mail messages or pictures to hurt someone's feeling, make someone feel bad, threaten someone, etc.*

At school, how often have other students....

6A. Physically bullied you? Examples: hit, kicked, pushed, slapped, spat on or otherwise physically hurt you)

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months

- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months

6B. Verbally bullied you? Examples: said mean things to you, teased you, called you names, verbally threatened you

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months
- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months

6C. Socially bullied you? Examples: Excluded others from your group, gossiped, spread rumours, or made others look foolish etc.

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months
- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months

6D. Bullied you on the computer? Examples: used computer or email messages or pictures to threaten you or make you look bad

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months
- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months

At school, how often have you taken part in....

7A. Physically bullying others? Examples: hitting, kicking, pushing, slapping, spitting on or otherwise physically hurt others

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months
- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months

7B. Verbally bullying others? Examples: saying mean things to others, teasing others, calling others names, verbally threatening others

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months
- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months

7C. Socially bullying others? Examples: leaving others out of the group on purpose, refusing to play (hang out) with others, saying bad things behind the backs of others (gossiping), getting other students to not like someone

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months
- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months

7D. Bullying others on the computer? Examples: using the computer or email messages or pictures to threaten others or make them look bad

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months
- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months
- ☐ At school, how often have you seen other students...

At school, how often have you seen other students....

8A. Physically bully others? Examples: hit, kick, push, slap, spit on or otherwise physically hurt others

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months
- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months

8B. Verbally bully others? Examples: say mean things to others, tease others, call others names, verbally threaten others

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months
- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months

8C. Socially bully others? Examples: leave others out on purpose, refuse to play (or hang out) with others, say bad things behind the backs of others (gossiping), get other students to not like someone

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months
- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months

8D. Bully others on the computer? Examples: use the computer or email messages or pictures to threaten others or make them look bad

- ☐ Not at all in the past three months
- ☐ Once only in the past 3 months
- ☐ A few times in the past 3 months
- ☐ Every week in the past 3 months
- ☐ Many times a week in the past 3 months

9. Where/when does bullying happen most at this school?

- ☐ Gym
- ☐ Playground
- ☐ Classrooms
- ☐ Lunchroom/cafeteria
- ☐ Hallways
- ☐ Change rooms
- ☐ Washrooms
- ☐ On the way to school
- ☐ On the way home from school
- ☐ During Class
- ☐ During intramurals
- ☐ During breaks/recess outside
- ☐ During breaks/recess inside
- ☐ At the front of the school
- ☐ At the back of the school
- ☐ In the parking lot
- ☐ Bus loading area
- ☐ Coatroom/cubbies
- ☐ On the school bus

Other places (please describe where):

10. If you have been bullied, whom did you tell?

- ☐ I have not been bullied
- ☐ No one
- ☐ Principal/Vice-Principal
- ☐ Teacher
- ☐ Parent
- ☐ Friend
- ☐ Bus Driver
- ☐ Relative (brother, sister, cousin, etc.)
- ☐ Other

11. What happened when you told?

- ☐ I wasn't bullied
- ☐ I was bullied but never told anyone
- ☐ Told and things got worse
- ☐ Told and nothing changed

☐ Told and things got better

Note: Although the following questions are optional, we encourage you to take the time to complete them. It will provide further information to assist your school.

12. How often has your mother or father talked with you about bullying?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

13. How often do teachers try to put a stop to it when a student is being bullied at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

14. How often does the Principal/Vice-Principal try to put a stop to it when a student is being bullied at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

15. How often do students try to put a stop to it when a student is being bullied at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

16. How often can you find an adult at this school when you need help?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

17. How often do you think teachers in this school talk with students in class about bullying?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

18. How often do you think teachers in this school talk to students about being a bystander (witness) to bullying?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

19. How often do students in this school use peer mediation to solve problems?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

20. How often do teachers address conflict resolution during lessons in this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

21. It is okay to call some students nasty names.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

22. Students who get picked on a lot usually deserve it.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

23. Students who are bullied feel sad about it.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

24. It is okay to join in when someone you don't like is being bullied.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

25. Bullying is just a normal part of being a student.

- ☐ I Strongly Agree
- ☐ I Agree

- ☐ I Disagree
- ☐ I Strongly Disagree

26. Getting bullied helps to make students tougher.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

27. It is my responsibility to do something to help when I see bullying.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

28. In my group of friends, bullying is okay.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

29. Students who join in bullying are as bad as the bully.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

30. I'm upset when another student is being bullied.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

31. If you're angry with someone, it's okay to keep them out of your group of friends.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

32. It is best to avoid repeating stories about others, if you don't know what is true.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

33. It is okay to like students who get bullied.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

34. Students who get bullied are just as good as other students.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

35. Students should be punished for teasing.

- ☐ I Strongly Agree
- ☐ I Agree
- ☐ I Disagree
- ☐ I Strongly Disagree

The following questions are about violence and substance use.

36. During the past 3 months, how often have you been aware of students using alcohol at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

37. During the past 3 months, how often have you been aware of students using illegal drugs at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

38. During the past 3 months, how often have you been pressured by your peers to use alcohol or illegal drugs at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

39. During the past 3 months, how often have you been aware of the selling of illegal drugs at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often

☐ Very often

40. During the past 3 months, how often have you been aware of students using tobacco at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

41. During the past 3 months, how often have you been pressured by other students to use tobacco at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

42. During the past 3 months, how often have you been aware of gang related activity occurring at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

43. During the past 3 months, how often have you been aware of weapons being brought to this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

44. During the past 3 months, how often have you been aware of weapons being used at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

45. During the past 3 months, how often have you been aware of student racial conflict at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

46. During the past 3 months, how often have you been aware of students being harassed/threatened at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

47. During the past 3 months, how often have you been aware of students trying to take money/possessions away from other students at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

48. During the past 3 months, how often have you been aware of students fighting at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often

49. During the past 3 months, how often have you been aware of student vandalism occurring at this school?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Very often