EMOTIONAL INTELLIGENCE AND BULLYING VICTIMIZATION: AN EXPLORATION
OF GENDER, AGE, AND SUB-TYPES OF BULLYING ACTIVITIES

A Thesis Submitted to the Committee of Graduate Studies in Partial Fulfillment of the
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TRENT UNIVERSITY
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Abstract

Emotional Intelligence and Bullying Victimization: An Exploration of Gender, Age, and Sub-Types of Bullying Activities

Alexandra Ha

Previous research has found that bullying and victimization is related to poor socioemotional competencies. The present study examined the relationship between emotional intelligence (EI) and bullying and victimization in a large community-based sample of adolescents. Specifically, we explored the EI of bullies, victims, bully-victims, and those uninvolved. We also examined whether the relationship between EI and types of bullying and victimization activities were consistent across age and gender. We found that stress management and interpersonal skills are important EI dimensions to predicting both bullying and victimization. Moreover, intrapersonal skills were predictive of boys’ bullying behaviours and adaptability was the strongest EI dimension in bullies and victims. Age did not contribute much to the overall prediction of bullying and victimization in either gender. Results are discussed in terms of future implications regarding anti-bullying interventions.
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Introduction

More than 5,000 peer-reviewed papers on bullying were published from years 2000 to 2017 (Web of Knowledge, 2017). Interest in bullying research is warranted as bullying and victimization is a serious and common problem among youth. Bullying not only has severe negative effects on the people involved, but also has serious implications on much broader levels, including family life, the educational system, employment and health (Wolke, Copeland, Angold, & Costello, 2013). These effects are important to consider in light of the high rate of bullying in Canadian youth. Recent studies show that 47% of Canadian parents report having a child who has been a victim of bullying (Wells, 2007); and at least 1 in 3 Canadian adolescent students reported being recently bullied (Molcho et al., 2009). Further, the Canadian Council in Learning in 2008 placed Canada 9th, out of 35 countries, in having the highest bullying rates among 13-year-olds. Given this high rate of bullying incidences, as well as the severe short- and long-term impacts of such behaviours, it is important for researchers to explore factors that promote various types of bullying behaviours and victimization experiences.

One of the factors that appears to be related to bullying behaviours and victimization experiences is emotional intelligence (EI): an individual difference variable referring to the abilities, competencies, and dispositions to use and process emotional information (Bar-On & Parker, 2000; Goleman, 1998; Salovey & Mayer, 1990; Schutte et al., 1998). Understanding how EI may vary in different types of bullying behaviours and victimization experiences offers insight into the psychology of interpersonal aggression and socioemotional functioning. The purpose of this thesis is to examine the relationship between EI and various types of bullying and victimization behaviors in a large community based sample of adolescents. This thesis will begin
with a definition and profile of bullying participant types, followed by a literature review on age, gender, and socioemotional competencies in relation to bullying. Finally, the concept of EI including its models and its relation with age and gender will be examined, followed by the limitations of previous work in the area of EI and bullying and then the present study’s objectives and hypotheses.

**Bullying**

**Profile of the Bully**

Bullying is characterized as aggressive behaviour that is directed toward an individual or group and that happens repeatedly over time and consists of an apparent imbalance of power (Lamb, Pepler, & Craig, 2009). The bully is likely to be male (e.g., Hussein, 2012), physically stronger (Lagerspetz, Bjorkqvist, Berts, & King, 1982), and more aggressive (Olweus, 1978), impulsive, hostile, and domineering, than their uninvolved peers. They tend to also suffer from a variety of problems associated with psychosocial functioning and well-being (Nansel et al., 2001, 2004), including psychoticism traits (Slee & Rigby, 1993b) and externalizing behaviour and hyperactivity problems (Kumpulainen et al., 1998).

Interpersonally, bullies lack the social skills needed to form and maintain meaningful relationships. Indeed, they tend to be antisocial and uncooperative towards peers (Craig, 1998; Kumpulainen et al., 1998; Rigby, Cox, & Black, 1997), have trouble resolving problems with others (Cook et al., 2010) and exhibit fewer conduct problems (Austin & Joseph, 1996). Despite not being well-liked in their social circle, some bullies are considered popular and high in social status (e.g., Adler & Adler, 1995; Babad, 2001; Farmer, Estell, Bishop, O’Neal, & Cairns, 2003; Parkhurst & Hopmeyer, 1998; Vaillancourt, Hymel, & McDougall, 2003). This finding is
aligned with the literature suggesting that there are two sub-types of bullies: the unpopular aggressive and the popular aggressive. Although popular bullies do not have elevated levels of rejected sociometric status, they were more likely to have lower levels of peer-perceived social prominence and social skills (Farmer et al., 2003). On the other hand, unpopular bullies are not liked by their peers, however, they are still not as unpopular as the victims (Lagerspetz, Bjorkqvist, Berts, & King, 1982). Social standing and popularity of bullies differs by gender; aggressive girls (regardless of the type of aggression they display) are often seen as odd or unusual and are therefore not preferred as company; whereas overtly aggressive boys may increase their popularity because being physically aggressive is more common and approved for boys (Salmivalli et al., 1996).

As some bullies are viewed as high-status popular individuals and others’ are not, some bullies may view themselves quite positively while others do not. For example, studies show that bullies rate themselves high on positive traits such as toughness and confidence (Olweus, 1978). On the other hand, bullies may not view themselves as positively. For instance, studies by Bjorkqvist, Ekman, and Lagerspetz (1982) and Cook et al. (2010) found that bullies self-report that they are impulsive, that they lack self-control, and that they tend to have negative self-related cognitions and low self-esteem.

To better understand the factors that contribute to bullies’ tendencies to aggress, it is fruitful to explore the family and educational background that is typically associated with these troubled youths. Bullies’ parents tend to be hostile and rejecting, to have poor problem solving skills and to resort to physical disciplining of their child. They are also often permissive of their child’s aggressive behaviors, with some even encouraging their children to strike back when they are provoked (Demaray & Malecki, 2003; Loeber & Dishion, 1984). Thus, bullies’ family
environment is often characterized by conflict and poor parental monitoring that may perpetuate their aggressive behaviours.

At school, bullies tend to view the environment as negative. This aversion towards school may explain why bullies are harder to manage in the classroom (Demaray & Malecki, 2003), are liked less by teachers and why they may receive less support from their teachers (Slee & Rigby, 1993). Being a bully also negatively impacts academic competence beyond demographic background including sex, maternal education, and prior year academic competence (Ma, Phelps, Lerner, & Lerner, 2009). Thus, bullies face several challenges at home and at school that may contribute to their violent behaviours.

One reason why bullies choose to intimidate others may be due to their negative attitudes and beliefs about people. Using a meta-analysis, Cook et al. (2010) revealed that holding negative attitudes and beliefs about others was a significant predictor of being a bully (including both bullies and bully-victims), but not a victim. Indeed, bullies select their victims based on whether or not these victims provoke the bullies and are disliked by the bullies (Boulton & Underwood, 1992). In addition, bullies may choose to dominate others because they feel more secure and less anxious when they are in control (Craig, 1998; Kumpulainen et al., 1998). In addition to bullies’ need for dominance, which when achieved helps them regulate their emotions and up-hold their positive self-image, bullies may also behave aggressively because they believe that in doing so their goals can be achieved. This motivation to aggress contributes to their positive outlook on aggression (Olweus, 1997). In addition, bullies tend to be unaffected by inflicting pain and suffering of those they harm, which helps perpetuate aggression (Perry, Perry, & Kennedy, 1992). In short, the research shows that various motivating factors such as
emotional regulation, self-esteem, lack of empathy, and attitudes about aggression are the strongest predictors of bullying behaviours.

The effects of being a bully has both negative short-and long-term effects. In the short-term, bullies are at an increased risk of becoming involved in delinquency, crime, and alcohol abuse (Loeber & Dishion, 1983; Magnusson, Stattin, & Duner, 1983). Aggression in adolescents is also associated with psychosocial maladjustment, absenteeism from school, involvement in delinquent acts, substance abuse, low academic achievement, and various mental health problems (e.g., higher levels of depression) (Loeber & Dishion, 1983; Magnusson, Stattin, & Duner, 1983; Moffitt, 2006; Ostrov & Godleski, 2009; Piquero, Daigle, Gibson, Piquero, & Tibbetts, 2007;). In addition to these short-term consequences, long-term negative consequences have been documented for bullies. Bullies who have been identified by 8 years of age are six times more likely to be convicted of crimes as young adults and five times more likely to have serious criminal records by the age of 30 (Olweus, 1993). These maladaptive behaviours are unsurprising, as bullying at a young age teaches children that they can achieve immediate goals without negotiating with others in socially appropriate ways (Haynie et al., 2001), which results in persistent maladaptive patterns.

Profile of the Victim

Bullying is defined as aggressive behaviour that capitalizes on the imbalance of power. Often, victims are targeted because they are weaker in power either by physical or social standards. First, victims are often smaller in size and physically weaker (Wilton, Craig, & Pepler, 2000), making these individuals easy targets for bullies who tend to seek individuals they can dominate. Indeed, body size was found to be a significant predictor of victimization. For example, in a study by Ma (2002), male victims in grade 6 and 8 tended to be smaller in size than
male bullies. Though body size was a significant predictor of victimization in the study, the researchers found that gender (being male) was a stronger predictor of victimization than physical conditions.

In addition to being physically weaker, victims are also vulnerable if they have low social standing, based on rejection and isolation from their peers (Hoover, Oliver, & Hazler, 1992). This may be perpetuated from a variety of factors including their deficiency in socioemotional functioning (e.g., difficulties solving social problems; Cook et al., 2010; D'Zurilla, & Nezu, 1982), introversion and quietness (Slee & Rigby, 1993), sensitivity, cautiousness, and the inability to adapt to new situations (Byrne, 1994; Boulton & Underwood, 1992; Craig, 1998; Olweus, 1993; Olweus, 1995; Rigby & Slee, 1991; Slee, 1995; Slee & Rigby, 1993), and low levels of pro-sociality (Schwartz, 2000). As such, peers tend to avoid the victim for fear of being bullied themselves or losing social status by affiliation (Nansel et al., 2001). Thus, having low social standing and limited social support is a recipe for victimization.

Other risk factors of victimization include loneliness, suicidal behaviours and somatic symptoms, as well as early experiences of social anxiety (Acquahab et al. 2015; Nixon 2014). Victims also have problems with emotions and psychosomatic symptoms including depression and anxiety (Boulton & Underwood, 1992; Kumpulainen et al., 1998), as well as poor self-concept such as insecurity and low self-esteem (Cook et al., 2010). In fact, in the meta-analysis by Cook et al. (2010), average effect sizes showed that victims (and bully-victims) across several studies had negative attitudes and beliefs about oneself, which was only marginally so for being a bully. Other unique risk factors for victims include alcohol use and peer antisocial behaviours (Volk, Craig, Boyce, & King, 2006).
In terms of social contexts, victims often come from negative family and school environments (Cook et al., 2010). Victims’ parents tend to be over-protective and may be rejecting (Batsche & Knoff, 1994; Bowers, Smith, & Binney, 1994; Olweus, 1993). These findings may differ by gender; boys who perceive their mothers as overprotective and girls who perceive their mothers as rejecting, were more likely to be victimized (Finnegan et al., 1998).

As noted above, the victims of bullying suffer from an array of negative effects. To highlight a few of the most important, victimization is related to signs of distress and adjustment problems (Arseneault, Bowes, & Shakoor, 2010), depressive symptoms, anxiety and psychosomatic complaints (Prinstein et al. 2001; Storch and Masia-Warner 2004; You et al. 2015) and higher levels of psychological distress indicators, including perceived stress (Estévez et al. 2008; Seals and Young 2003), elevated levels of social isolation (Forero et al. 1999; Hawker & Boulton, 2000; Kaltiala-Heino et al. 2000; Nansel et al. 2001; Wolke et al. 2001; Karatzias et al. 2002; Veenstra et al. 2005), low self-esteem, and difficulty sleeping (Cava, Buelga, Musitu, & Murgui, 2010; Crick & Bigbee, 1998; O’Moore & Kirkham, 2001).

Victims are also at an increased risk for suicidal/self-injurious behaviours and ideation, even after controlling for other suicide risk factors such as anxiety and depression (Klomek et al., 2008, 2009). Victims may even attempt suicide in extreme cases (Batsche & Knoff, 1994; Kumpulainen et al., 1998). The negative effects of being victimized can also be long-term. For example, several studies found that children who were bullied showed symptoms of depression later on in life (e.g., Bond et al., 2001; Klomek et al., 2008; 2009; Olweus, 1992). Moreover, being a victim of bullying predicted suicidality four years later, over and above early symptoms of conduct problems and depression (Klomek et al., 2009). Other longitudinal studies found that children victims of bullying and bully-victims show increased rates of psychotic
symptomatology (Bebbington et al., 2004; Janssen et al., 2004; Kelleher et al., 2008; Schreier et al., 2009) and anxiety symptoms (Guterman et al., 2002), as well as lower self-esteem, than non-victimized peers later in life (Olweus, 1993).

It has been consistently found that victims have more difficulties in school in terms of educational connectedness and achievements than those uninvolved (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Eisenberg, Neumark-Sztainer, & Perry, 2003; Nakamoto & Schwartz, 2010; Rueger, & Jenkins, 2014). Factors that attribute to victims’ disengagement and failure in academia may be due to their avoidance of school in order to avoid being bullied. Not attending school for fear of being bullied can then lead to higher probability of educational incompletion, which in turn can lead to a downward spiral of adversity (Sharp, 1995). Indeed, victims are more likely to drop out of school and often those who are victims in school are more likely to be victims in the workplace (Schafer et al., 2004). Thus, bullying victimization can result in a number of negative effects, ranging from psychosocial health, and academic and long-term outcomes in areas such as work.

**Profile of the Bully-Victim**

According to social learning theory, individuals learn by imitating others (Bandura, 1977). Thus, it is unsurprising that victims of bullying often become bullies by re-enacting the aggression imposed on them (Ma, 2001). Some studies show that about half of the bullies report being victims as well (Austin & Joseph, 1996; Espelage & Swearer, 2003; Haynie et al., 2001; Klicpera & Gasteiger Klicpera, 1996; Pellegrini, Bartini, & Brooks, 1999; Schwartz, 2000). In fact, the most extreme victims of bullying are also some of the most aggressive bullies (e.g., Salmivalli & Nieminen, 2002; Peery et al., 1988).
The profile of a bully-victim has been described as an individual who tends to be male (e.g., Espelage, Mebane, & Adams, 2004; Hanish & Guerra, 2004; Klicpera & Gasteiger Klicpera, 1996; Pellegrini et al., 1999; Schwartz, 2000), has comorbid externalizing and internalizing problems, holds significant negative attitudes and beliefs about himself or herself and others, has low academic achievement, and social competence such as weak social problem solving skills (Cook et al., 2010). In addition, peer perceptions and interactions may be particularly influential for bully-victims. A meta-analysis by Cook et al. (2010) shows that peer ecology predictors such as peer status and influence uniquely predicted both bullying and victimization. Examining effect sizes across 153 studies, it was confirmed that bully-victims, like victims only, are rejected and isolated by their peers; and like bullies, they are negatively influenced by the peers with whom they interact with.

In addition to experiencing peer influences that affect both bullies and victims, bully-victims also show patterns of risks associated with being bullies and victims, such as drug use, mental health problems, and school atmosphere problems (Volk, Craig, Boyce, & King, 2006). Because bully-victims experience the negative effects of both bullies and victims, they are the most vulnerable for psychosocial problems (Austin & Joseph, 1996; Forero, McLellan, 2004; Hanish & Guerra, 2004; Nansel et al., 2001; Rissel, & Bauman, 1999; Schwartz, 2000). For example, bully-victims suffer more maladjustment and depressive symptoms, than just victims (Kaltiala-Heino et al., 2000; Kumpulainen, Räsänen, & Puura, 2001; O’Moore & Kirkham, 2001; Salmivalli, 2005; Schwartz, 2001), and also show more aggression and hyperactivity, than just bullies (Kumpulainen et al., 1998). Moreover, bully-victims tend to score lower on measures of academic competence, global self-worth, self-esteem, and self-control (Austin & Joseph, 1996). Bully-victims also show increased self-harm behaviours and suicidal ideations (Baldry &
Winkel, 2003; Barker et al. 2008; Herba et al. 2008; Kim et al. 2005; Klomek et al. 2009; van der Wal et al. 2003), depressive affect, anxiety, loneliness, suicidal behaviour and somatic symptoms than bullies (Acquahab et al., 2015; Nixon, 2014). Longer effects have also been documented in the literature, showing bully-victims (victimization assessed at ages 13-16 and bullying at age 14–16 years) were the highest in self-harm at age 16 compared to bullies and victims (Barker et al., 2008). Thus, bully-victims are at the greatest need for psychosocial support and intervention.

Sub-TYPES OF BULLYING AND VICTIMIZATION

Much of the early research on bullying focused on overt bullying, but bullying behaviours can now be conceptualized as have several broad types: physical, verbal, relational, or electronic (Lamb, Pepler, & Craig, 2009; Wang, Iannotti, & Nansel, 2009). In the U.S., adolescents in the year 2009 reported having bullied others or having been bullied at school at least once in the last 2 months, with 20.8% being physical, 53.6% verbal, 51.4% social, and 13.6% electronic (Wang, Iannotti, & Nansel, 2009). Taking into account the type of bullying involved is important for two reasons. First, research shows that victims of multiple forms of aggression are at greater risk for adjustment difficulties than victims of one or no form of aggression (Prinstein, Boergers, & Vernberg, 2001). Second, understanding the different forms of bullying may help determine the most appropriate method of intervention (Volk, Craig, Boyce, & King, 2006).

As noted, victims of multiple forms of aggression are at the greatest risk for adjustment difficulties. Unfortunately, it is very common for a victim to be targeted using all of these bullying forms (Berger, 2007; Benbenishty & Astor, 2005; Nishina, 2004; Rigby, 2002). Gender and age may play a factor in whether bullies employ a combination of these bullying types. Boys are more often than girls to employ all four types, and employing all-types or a combination of
verbal and social bullying peaked during grades 6 to 8 and grades 7 and 8, respectively (reference?). Although using a combination or all four forms of bullying, is common, these bullying subtypes are considered distinct in the literature, showing differences in their nature, antecedents, and outcomes.

Physical. Physical bullying is the most common form of bullying among younger children and is a direct form of aggression that includes hitting, kicking, and pushing (Craig & Harel, 2001). Physical bullying results in both direct and indirect physical harm. Indirect physical harm includes the psychological side effects that may result from physical harm such as increased psychological distress, suicide ideation, and severe psychosomatic symptoms. These symptoms in turn could impact immune system and one’s overall health (Gini & Pozzoli, 2013).

Verbal. Like physical bullying, verbal bullying is a direct form of aggression. Verbal bullying includes behaviours such as name-calling and teasing. Although no studies have focused specifically on the effects of verbal bullying, studies on the effects of verbal abuse on children suggest that there are unique effects from verbal aggression. For example, parental verbal abuse can have a greater impact on the child than other forms of abuse, for a longer period of time (Ney, 1987). These effects include a variety of psychosocial problems (Vissing, Straus, Gelles, & Harrop, 1991), such as fear and anxiety, depression, stress and PTSD, intrusive memories, memory gap disorders, sleep or eating problems, hyper-vigilance and exaggerated startle responses, irritability, anger issues, alcohol and drug abuse, suicide, self-mutilation, and assaultive behaviors (Coker, Smith, Bethea, King, & McKeown, 2000; Evans, 1996; Hines & Malley-Morrison, 2001; Reinert & Edwards, 2009; Vissing, Strauss, Gelles, & Harrop, 1991).

Social. Unlike physical and verbal bullying, social bullying is an indirect form of aggression and is also known as “relational aggression” (Archer & Coyne, 2005). Social
aggression has been defined as “the manipulation of group acceptance through alienation, ostracism, or character defamation” (Cairns et al., 1989, p. 323). Capitalizing on a fully developed set of social skills (Bjorkqvist et al., 1992), these behaviours include spreading rumors, name calling, teasing, rejecting, purposely ignoring others, and taking of others’ personal belongings (Nansel et al., 2001).

Compared to physical and verbal bullying, where the effects for concurrent and future adjustment difficulties are better understood, the long term effects for relational bullying are less known (Coie & Dodge, 1998). However, it has been found that the effect of social bullying and both concurrent and future maladjustment shows moderate stability (Tomada & Schneider, 1997). It has been found that social bullying is significantly correlated with depression, loneliness, social anxiety, externalizing symptoms, and peer rejection during middle childhood (Craig, 1998; Crick & Grotpeter, 1995). Additionally, social bullying may differ for girls and boys. For example, relationally aggressive adolescent girls tend to have greater negative self-representations, greater loneliness, and higher levels of externalizing behavior than relationally aggressive adolescent boys (Moretti, Holland, & McKay, 2001; Prinstein et al., 2001). Aggressive adolescent girls also experience significant socioemotional challenges including internalizing difficulties.

Indirect bullying may produce more serious consequences than direct aggression. For instance, Baldry (2004) found that direct aggression did not significantly predict poor mental and somatic health in youngsters; however, indirect bullying significantly predicted anxiety, depression, and withdrawn behaviours (Baldry, 2004). In addition, Prinstein, Boergers, and Vernberg (2001) found that adolescents who were relationally victimized had higher levels of internalizing symptoms (e.g., higher levels of depression symptoms, higher levels of loneliness,
and lower global self-worth) compared with other teens. Though some effects (e.g., internalizing symptoms) seem to be worse in social victimization compared to other types of victimization, one’s gender may determine the severity of the effects of social bullying. Girls in particular, report higher negative affect in response to relational aggression than boys (Crick, 1995). In addition, relational aggression and victimization contributed uniquely to the prediction of concurrent and future social–psychological difficulties, particularly for girls (Crick & Bigbee, 1998). Prinstein, Boergers and Vernberg (2001) also found that relational aggression explained a significant proportion of variance in girls’ social–psychological adjustment and externalizing behaviours, even after controlling for associations with overt victimization and the shared variability between overt and relational forms of victimization.

**Cyber.** As technology becomes more accessible, cyberbullying has become increasingly common among adolescents (Law, Shapka, Hymel, Olson, & Waterhouse, 2012). Cyberbullying is defined as repeated harm inflicted onto others through the use of technological mediums such as computers and cellphones, or other electronic devices. It includes behaviours such as text messaging and e-mailing hurtful messages or images.

The same predictors of traditional bullying also predict cyber-bullying, including normative beliefs about bullying, negative school climate, and negative peer support (Williams & Guerra, 2007). Other studies found that those who cyberbully also engage in traditional types of bullying (Dempsey et al., 2011; Erdur-Baker 2010; Jose et al. 2012; Kowalski et al. 2012; Raskauskas & Stoltz 2007; Sticca et al. 2013). For example, previous engagement in relational aggression predicted both cyber and traditional bullying (Hemphill et al., 2012). In addition, Beran and Li (2008) found that 56% of students who were bullied in cyberspace were also bullied at school. Moreover, Cross et al. (2009) found that 87% of students reported that they
have experienced both cyber and traditional bullying and 77% of individuals reported that they have bullied others in both online and in traditional ways.

There may also be specific variables that predict cyberbullying such as previous engagement in relational aggression (Hemphill et al., 2012), involvement in offline bullying behaviours, and frequency of online communication predicted cyber-bullying (Sticca et al., 2013). Some variables may uniquely predict cyberbullying, such as family context, which may differ by gender. For example, higher loneliness in relation to parents such as not spending enough time with parents, were predictive of cyber-victimization in girls, but not traditional victimization. In boys on the other hand, lower family self-esteem such as the extent to which they felt important in their family predicted cyber victimization but not traditional victimization. Finally, difficulties with emotional processes may increase one’s vulnerability to cyber-bullying in addition to traditional bullying. Specifically, students who experienced emotional difficulties and/or peer problems were more likely to be cyber-and traditionally bullied than cyberbullied only (Goldbaum et al. 2003; Lester and Cross 2015; Lester et al. 2013; Riittakerttu et al., 2010).

Cyberbullying has the same negative consequences on the victims as traditional bullying, including psychosocial problems and emotional distress. Some scholars even argue that the effects of cyber-bullying are more severe as victims of cyberbullying exhibited more symptoms of depression compared to victims of traditional bullying (Perren et al., 2010). There may also be gender differences; girls report more negative emotional consequences of cyber victimization than boys (Ortega et al., 2009; Schultzze-Krumbholz et al., 2012). Though there is some evidence suggesting that the effects of cyber bullying are equivalent to that of traditional bullying, scholars have suggested that bullying online may pose a greater threat than traditional bullying.
because victims can be targeted at places other than the school grounds (i.e., at home; Ybarra & Mitchell, 2004).

**Age Trends in Bullying and Victimization**

The frequency of bullying behaviours and victimization experiences tend to decrease with age (Scheithauer, Hayer, Petermann, & Jugert, 2006; Volk, Craig, Boyce, & King, 2006), and these bullying behaviours may also manifest differently with maturity. At as young as 12 months old, children are able to physically aggress. Physical bullying therefore appears the most often amongst younger children than other types of bullying. Between the ages of 11 and 15 years old, children tend to be less physically aggressive and more verbally and socially aggressive, as children’s verbal and social skills begin to develop (Bjorkqvist et al., 1992). For example, the child can now use socioemotional competencies to verbally attack others (knowing what to say to inflict the greatest psychological harm) and to manipulate others in order to damage a victim’s reputation or social relationships (Björkqvist et al., 1992a, 1992).

**Gender and Bullying**

*Physical and Verbal Bullying.* Most studies have found that boys are more likely to physically bully others (e.g., Bjorkqvist et al., 1992; Li, 2006). Studies appear to be mixed for verbal bullying but the majority of the studies suggest that boys do more verbal bullying. However, other evidence suggests no gender differences (Bjorkqvist et al., 1992; Lagerspetz et al., 1988). Either way, it has been found that both physical and verbal aggression may be particularly aversive for boys, associated with depression symptoms (Prinstein, Boergers, & Vernberg, 2001).

*Social Bullying.* In terms of social bullying, the majority of studies have found that girls are more likely than boys to engage in relational bullying (e.g., Crick & Grotpeter, 1995;
Lagerspetz, Bjorkqvist, & Peltonen, 1988). In fact, this type of bullying is seen in girls as young as 8 years old. Though this type of bullying begins at a young age, relational bullying does not fully develop as an alternative to more direct forms of aggression until 11 years, at which time it is known to peak (Bjorkqvist et al., 1992). It has been suggested that relational bullying is used by girls to gain social power (Crick & Bigbee, 1998; Crick & Grotpeter, 1996; Cullerton-Sen & Crick, 2005; Paquette & Underwood, 1999; Prinstein et al., 2001; Salmivalli et al., 1996). This social power is achieved as girls capitalize on their verbal and social intelligence, communicating with others with carefully chosen words and actions. This social sophistication is correlated positively to clique centrality and perceived popularity (Cillessen & Mayeux, 2004; Kaukiainen, Bjorkqvist et al., 1999; Xie, et al., 2002), greater friendship intimacy and higher attractiveness than their peers (Vaillancourt, Hymel, & McDougall, 2003). In addition, language skills are an important component of social bullying. Thus, girls are more experienced with relational bullying because they have better developed expressive language skills (compared to boys; Estrem, 2005). In addition to being more involved in relational bullying, girls are also more likely to report being more distressed as a result of social bullying, compared to boys (Paquette & Underwood, 1999).

Despite most studies finding that relational bullying is more prevalent in girls, other studies suggest that gender differences are less pronounced. For example, a meta-analysis revealed that gender differences in social aggression are small and trivial (Card et al., 2008). Such minor differences may be attributable to the broad definition of social aggression which includes both physical and social.

**Cyberbullying.** Compared to physical, verbal, and social bullying, the gender differences in cyber bullying are more nuanced. Although boys have been reported to engage more often in
cyberbullying (Cook et al., 2010; Erdur-Baker, 2010; Li, 2006; the First Youth Internet Survey), other studies found that girls are more likely to cyber bully (Brighi et al., 2012; Hinduja & Patchin, 2009; Kowalska & Limber, 2007; Li, 2007). In particular, these scholars argue that girls are more likely to bully online, because of the nature of the cyberbullying which usually takes the form of social aggression and because girls use social media more (Barker, 2009). However, the majority of the studies suggest no gender differences in cyberbullying (e.g., Hemphill et al., 2012; Patchin & Hinduja, 2006; Raskauskas & Soultz, 2007; Schultze-Krumbholz et al., 2012; Sticca et al., 2013).

**Socioemotional functioning of bullies and victims**

A common risk factor in bullies, victims, and bully-victims is poor socioemotional functioning (Gamez-Guadix et al. 2013; Goldbaum et al. 2003; Goldbaum et al. 2003; Lester et al. 2013; Lester & Cross 2015; Kokkinos & Kipritsi, 2012; Olweus, 1994; Perry, Willard, & Perry, 1990). A meta-analysis of 153 studies revealed that socioemotional factors, including poor social competence (in addition to internalizing and externalizing behaviours), predicted bullying perpetration and victimization (Cook et al., 2010). Other studies show that perceptions of low social support (Demaray & Malecki, 2003; Holt & Espelage, 2007) and low self-esteem (Boulton & Smith, 1994; Hawker & Boulton, 2000; O’Moore & Kirkham, 2001) are predictors of bullying and victimization.

Though poor socioemotional functioning increases the vulnerability of being a bully and a victim, different emotional abilities may differentially predict types of bullying participation. That is, those involved as victims, bullies, and bully-victims may differ in areas of their overall socioemotional functioning. For example, bullies tend to have greater emotional lability/negativity (Garner & Hinton, 2010), are less polite and aware of their emotions, and are
less likely to follow social rules in social interactions, than uninvolved children (Huessein, 2012). In addition, biases in social cognition with regard to reading others’ emotions and intent in ambiguous situations, were found to be robust risk factors for violence (de Castro, Eerman, Koops, Bosch, & Monshouwer, 2002; Mathieson et al., 2011). Victims, on the other hand, are more likely to experience emotional distress, internalize their negative emotions, and have lower knowledge of display rules for sadness (Garner & Hinton, 2010). Finally, bully-victims seem to have the worst of both worlds: showing a combination of aggressive and emotional symptoms (i.e., aggressive victims; Schwartz, 2000; Tobin et al., 2005) and overall poorer emotion self-regulation skills, compared to controls or victims alone (Garner & Hinton, 2010).

These findings, taken together, suggest that having more adaptive socioemotional competencies can protect one against the probability of becoming a bully and a victim. Further, this work suggests that different socioemotional components (e.g., emotional displays, emotional regulation, etc.) can be differentially related to bullies, victims, and bully-victims. Other types of emotional abilities that have been found to be related to bullying victimization are empathy (e.g., Gini, Albiero, Benelli, & Altoe, 2007), theory of mind (e.g., Bjorkqvist, Lagerspetz & Kaukiainen, 1992), and social intelligence (e.g., Kaukiainen et al., 1999). Importantly, these emotional components may not only be differentially related to bullying participant types but also to subtypes of bullying.

**Empathy**

The socioemotional skill that is perhaps the most extensively studied in the bullying literature is empathy (e.g., Gini, Albiero, Benelli, & Altoe, 2007; Jolliffe & Farrington, 2006; Richardson, Hammock, Smith, Gardner, & Signo, 1994). Empathy is composed of both affect and cognition and is broadly defined as the experience (Mehrabian, 1972) and the understanding
(Hogan, 1969) of others’ emotions. It has consistently been found that adolescents who have low empathic responsiveness and concern for others are more likely to bully compared to adolescents with stronger empathetic abilities (Gini et al., 2007; Richardson, Hammock, Smith, Gardner, & Signo, 1994). Similarly, other research has found that a lack of empathy or social understanding is associated with fewer prosocial behaviours (Warden & Mackinnon 2003), and bullying and aggression (Gini et al., 2007; Jolliffe & Farrington 2006; Kaukiainen et al., 1999; Pellegrini et al. 1999; Sutton et al. 1999).

Not only specific to bullies, adolescents who have low levels of cognitive empathy that are characterized by weak abilities to recognize and identify others’ emotions, and to understand the thoughts, beliefs and intentions of others, are more likely to be victimized (Gini, 2006; Sutton, Smith, & Swettenham, 1999; Malti et al., 2010). Research suggests that the lack of cognitive empathy in victims hinders the formation of high-quality interpersonal relationships. In turn, the fewer social relationships one has, the lower his or her social adjustment and the more vulnerable he or she is to bullying victimization.

These results strengthen our appreciation of the role that empathy plays in bullying victimization, but the cross-sectional nature of many relevant studies precludes causation. To address this issue, Stavrinides, Georgiou, and Theofanous (2010) conducted a longitudinal study to examine whether cognitive and affective empathy predicts children’s bullying behaviour or whether children’s bullying behaviour predicts cognitive and affective empathy. The researchers found that the more empathic a child is at Time 1, the less involved this child is in bullying activities in Time 2, six months later. Additionally, the more the child shows bullying behaviours at Time 1, the less empathy the child shows at Time 2. Affective empathy, but not cognitive
empathy, was related to bullying. Thus, low empathy does indeed cause aggression, underscoring the importance of strengthening empathic skills to lower the risk of becoming a bully.

In effect, strong empathic skills can mitigate interpersonal aggression and predict victimization. Further, affective and cognitive empathy can differentially predict bullying and victimization as found in both cross-sectional and longitudinal studies (include the references you are referring to here). Interestingly, empathy may also be differentially related to different sub-types of bullying. To illustrate, the ability to understand others’ emotions is an essential tool in attaining social power. Scholars therefore argue that empathy is positively correlated with social bullying and is seen as more conducive to indirect than to direct aggression (Björkqvist, Österman, & Kaukiainen, 2000; Kaukiainen et al., 1999). In short, empathy is associated with interpersonal aggression, predicting bullying, victimization, and bullying sub-types; and in particularly, social aggression). Another construct related to empathy that is worth exploring to better understand bullying is theory of mind.

**Theory of Mind**

Theory of mind (TOM) refers to the ability to attribute mental states (e.g., beliefs, desires, and intentions) to both ourselves and others (Andreou, 2004). This accurate perception of others’ minds in turn allows bullies to systematically select their victims (i.e., those who tolerate victimization and are disliked and unsupported by the peer group; Salmivalli et al., 1996). In addition to victim selection, TOM is required in certain types of bullying.

Some scholars argue that physical bullying may require some degree of social cognition. For instance, bullies may want to avoid detection or to choose the most effective time and method when the victim is at his or her most vulnerable state while minimizing the chances of hurting themselves (Salmivalli et al., 1996). Others suggest that TOM can also be used in verbal
bullying because one must understand the mental states and emotions of others in order to tease someone effectively (e.g., knowing what names will be the most hurtful).

The majority of studies in the field however suggest that TOM is most strongly related to social bullying (e.g., Premack & Woodruff, 1978; Sutton, 2003; Yiwen, Chongde, & Wenxin, 2004). Indeed, indirect bullying requires the understanding of human relations, reactions and skills such as social information processing and social awareness (Sutton Koegh, 2000). These skills are used to spread rumors and lies as well as gossip (Bjorkqvist, Lagerspetz & Kaukiainen, 1992). On the other hand, physical aggression has commonly been purported to manifest from a lack of social skills (Yoon et al., 2000). Thus, social cognitive skills may equip one with the tools to become a more effective bully, regardless of type of bullying.

**Social Intelligence**

Findings showing a link between social cognition skills such as empathy and TOM with bullying and victimization suggest that social intelligence may also contribute to bullying and victimization. Social intelligence refers to competencies in social situations, such as how well individuals are in understanding and managing people (Thorndike, 1920). Like empathy and TOM, social intelligence may be used to understand others’ emotions, which is an important component of indirect bullying, as being socially intelligent requires careful analysis of the least risky method to aggress (i.e., finding the best way to inflict harm to others without being at risk for direct retaliation; Björkqvist, Österman, & Kaukiainen, 2000). Researchers have found that indirect aggression is positively correlated with peer-rated social intelligence in groups of 8-, 12- and 14- year-olds, whereas physical and verbal aggression were not (Kaukiainen et al., 1999). Similarly, other studies found that social intelligence (without controlling for empathy), correlates with various types of conflict behavior in the following order: (a) peaceful means of
conflict resolution, (b) indirect aggression, (c) withdrawal, (d) verbal aggression, and (e) physical aggression.

Other studies found comparable results. For example, Andreou (2006) argues that the cognitive aspects of social intelligence are positively related to relational aggression, whereas a lack of social skills is more strongly related to overt aggression. These findings are aligned with the research on socioemotional functioning, empathy and TOM: higher socioemotional or social cognitive skills are most strongly related to reduced aggression, followed by indirect aggression, and finally more direct aggression.

Furthermore, this link between social intelligence and relational aggression may differ by gender. Peeters et al. (2010) found that social intelligence predicted relational bullying for girls, but not for boys. Other studies show that boys and girls may be socially intelligent in different ways. Relationally aggressive boys are better able to predict others’ feelings and reactions (i.e., social awareness), while relationally aggressive girls are better able to understand social cues (i.e., social processing; Andreou, 2006). Thus, gender may determine the type of social skills used to obtain centrality in one’s peer group and use social manipulation to ostracize a victim.

Across these studies on socioemotional functioning with foci on empathy, TOM, and social intelligence, three themes can be identified: (1) individuals who have weaker socioemotional skills are more likely to be bullies and victims; (2) individuals who have better developed set of social emotional competencies more likely to show indirect forms of bullying; and (3) relevant socioemotional competencies may differ as a function of gender and age.

A construct very similar to empathy, TOM, and social intelligence is emotional intelligence (EI). Although very similar to the socioemotional elements discussed, EI also includes a broader set of relevant competencies, such as positive mood, intrapersonal, stress
management skills, etc. Thus, EI is a comprehensive variable to study in order to better understand the socioemotional profiles of bullies and victims. Importantly, EI has been found to predict bullying and victimization and may also differentially relate to bullying and victimization participant types, type of bullying, and gender and age.

**Emotional Intelligence**

Individuals differ in their abilities, competencies, and dispositions to use and process emotional information, thereby differing in their behaviours and the extent to which they successfully adapt. This individual difference variable is known as emotional intelligence (EI), which is defined as “a multifaceted construct broadly defined as the constellation of abilities, competencies, and dispositions related to perceiving, understanding, and managing emotions in self and others” (Bar-On & Parker, 2000a, p. 763). Although EI developed as a theory in the early 1990s, its origin credits a long standing history that began with Darwin’s (1872/1965) writings on the adaptive expression of emotions. Darwin perceived emotion as adaptive, guiding us towards reasonable decision-making in uncertainty. This idea that emotions are adaptive led to the development of social intelligence (Thorndike, 1920), which argues that individuals differ in their competencies in social situations, such as how successful they are in understanding and managing people. In addition to being a topic of interest in social psychology, emotions were also studied in the realm of clinical psychology. By examining clinical cases, the construct of Alexithymia was conceived to characterize symptoms related to difficulty in identifying, describing, and attending to one’s feelings (Nemiah, Freyberger, & Sifneos, 1976). In 1983, Gardner categorized general intelligence into distinct elements such as intrapersonal intelligence (the ability to access one's own feeling life) and interpersonal intelligence (the ability to read the
moods, intentions, and desires of others). Together, intrapersonal and interpersonal intelligence make up “personal intelligences”, which is broadly defined as knowledge about the self and about others. A similar concept to personal intelligences is practical intelligence (Sternberg, 1985; 1997; 1999), which contrasts with academic intelligence and instead reflects intelligence that applies to everyday life and in the adaptation of, shaping of, and selection of environment (Sternberg, 1985, 1997, 1999). In other words, practical intelligence is akin to today’s concept of “street smart”.

These theories and constructs related to socioemotional competencies have collectively helped the acceptance of EI in the psychological literature. Over the past three decades, research on EI has grown exponentially and has been linked with a broad range of life outcomes. These outcome variables range from social relationships, psychological wellbeing, and physical health, to occupational success, competitive sports, and academic achievement (for recent reviews see Brackett, Rivers, & Salovey, 2011; Jordan, Murray, & Lawrence, 2009; Keefer, Parker, & Saklofske, 2009; Martins, Ramalho, & Morin, 2010; Parker, Saklofske, Wood, & Collin, 2009; Stough, Clements, Wallish, & Downey, 2009).

**Emotional Intelligence Models: Ability-based and Trait-based**

With the growth of the EI literature, two distinct perspectives of EI have been proposed: ability-based and trait-based, that each have their own approach to measuring EI (Parker, Keefer, & Wood, 2011). The ability-based approach defines EI as a set of emotion-related cognitive skills, meeting traditional standards for intelligence (Mayer, Caruso, & Salovey, 1999; Mayer, Salovey, & Caruso, 2008). Because ability EI (AEI) is construed as an ability, it is measured the way other mental abilities are measured: using performance tests. These tests are designed to assess respondents’ ability to solve problems that involve emotional reasoning as well as the use
of emotional information to facilitate reasoning. The most well-known performance EI test is the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer et al., 2002), which is based on The Mayer and Salovey's Four Branch model. The MSCEIT measures individual differences in four broad ability domains: (1) Identifying Emotions (i.e., ability to perceive and identify emotions in self and others, such as being aware of facial expressions indicating feelings of anger, happiness, sadness, etc., to distinguish between these types of emotions, and to accurately determine what these emotions mean); (2) Facilitating Thought (i.e., ability to use emotions to facilitate reasoning, problem solving, creative-thinking, and decision-making, such as reducing one’s anxiety in a test-taking situation so that one can effectively think); (3) Understanding Emotions (i.e., ability to understand and analyze emotional information, such as knowing that disgust and anger combine to form contempt, and how irritation can turn into rage); and (4) Managing Emotions (i.e., ability to know when to open and close emotions at certain times, such as reacting out of anger to accomplish a goal in the short-run or channeling and directing the anger elsewhere to accomplish a goal in the long-run).

Alternatively, the trait-based approach defines EI as a set of emotion-related dispositions, attitudes, and self-perceptions located at the lower levels of the hierarchical personality taxonomy (Petrides & Furnham, 2001; Petrides, Pita, & Kokkinaki, 2007). Because trait EI (TEI) is construed to be related to personality, it is measured the same way as personality variables: using self-report or observer-rated questionnaires. These questionnaires aim to capture respondents’ typical beliefs, feelings, and behaviours. Among the most well-known self-report EI questionnaires are the Emotional Quotient Inventory (EQ-i; Bar-On, 1997) and the Trait Emotional Intelligence Questionnaire (TEIQue; Petrides, 2009). Both of these questionnaires assess similar individual differences on a variety of traits and self-concepts under four broad EI
dimensions. The EQ-i is based on the Bar-On’s (2000) model of emotional–social intelligence, which categorizes EI by four dimensions: (1) intrapersonal (i.e., ability to analyze, express, understand, and accept one’s emotions and oneself, such as knowing why we feel certain emotions, to accurately evaluate and to accept our positive and negative qualities, and to be confident, assertive, and emotionally independent); (2) interpersonal (i.e., the ability to contribute constructively to one’s social group, and to relate to other people and establish and maintain mutually satisfying relationships, using skills such as empathy); (3) adaptability (i.e., the ability to effectively solve problems of a personal and interpersonal nature, and to be flexible with our feelings, thinking, and behavior such as being open-minded, resilient, and optimistic with new ideas and tasks); and (4) stress management (i.e., the ability to thrive in adverse situations by not being overwhelmed by feelings of hopelessness or helplessness, and to control our impulses such as controlling hostile and potentially irresponsible behavior).

The TEIQue is based on the trait EI theory by Petrides and Furnham (2001; Petrides, Furnham, & Mavroveli, 2007), which groups the EI dimensions by: (1) Emotionality (i.e., ability to perceive and express emotions, such as the ability to be empathetic, aware of our emotions, and to effectively communicate emotions with others in order to forge and sustain fulfilling relationships); (2) Self-Control (i.e., ability to regulate and to be reflective of ourselves, such as managing our emotions, and being resilient under pressure and capable of fighting urges); (3) Sociability (i.e., ability to thrive in social situations, such as the ability to make effective use of social skills for successful networking, to stand up for our rights, and to influence others’ emotions); and 4) Well-Being (i.e., general tendencies to see the “glass as half full”, to be satisfied with life, and to be successful and self-confident).
Despite containing similar EI contents, the ability and trait-based models differ in their conceptual definitions (self-perception of emotional abilities vs. actual emotional abilities), methodological operationalizations (performance vs. self-report), and nomological frameworks (intelligence vs. personality). These theoretical and practical differences consequently render weak to moderate correlations between the two constructs, as they each contribute independently to the prediction of various criteria (Brackett & Mayer 2003; Brannick, Wahi, Arce, & Johnson, 2009; Livingstone & Day, 2005; Van Rooy & Viswesvaran, 2004; Zeidner, Shani-Zinovich, Matthews, & Roberts, 2005).

**EI: Age and Gender trends**

EI generally increases with age however it is important to understand that AEI and TEI may differ in their developmental trajectory. Currently in the literature, there is a better understanding of the developmental trajectory of AEI than of TEI (Keefer, Holden, & Parker, 2013), as early empirical work on socioemotional competencies focused on the development of AEI (Denham, 1998; Lane & Schwartz, 1987; Saarni, 1999). Thus, the developmental path of TEI has comparatively been overlooked. That is, until the year 2010 when a recent biannual population-wide survey that was administered to Canadian children and adolescents (NLSCY) in examined the development of TEI, amongst other variables including cognitive development, health and wellbeing, and social and learning environments, from childhood into adolescence and young adulthood (Statistics Canada, 2010). To measure children and youths’ TEI, the brief form of Bar-On and Parker’s (2000b) Emotional Quotient–Youth Version (EQi:YV-Brief) was used. The EQi:YV is a multi-dimensional instrument based on Bar-On’s model of EI and it is designed to assess four conceptual TEI domains (Intrapersonal, Interpersonal, Stress...
Management, and Adaptability). The EQi:YV is currently one of the most widely used self-report EI measures with school-aged respondents (Humphrey et al., 2011).

Using a subsample of the NLSCY, Keefer, Holden, and Parker (2013) examined children ages 10- to 11-year-old in the last four cycles (2002 to 2008) and discovered an interesting finding regarding the developmental trajectories of AEI and TEI. Contrary to the conjecture that self-perception of EI is derived from actual EI competencies and thus should follow similar developmental trend, it was found that the developmental trajectory of TEI is quite distinct from that of AEI (Keefer, Holden, & Parker, 2013). Whereas the developmental trajectory of AEI is linear, such that children’s socioemotional competencies increase with general competence and sophistication, the development of TEI is curvilinear. By tracking youths’ EI self-reports over time, it was found that self-estimates of EI were highest in childhood (age 10-11 years), declined during the transition to adolescence (age 12-13 years), and then increased again throughout adolescence (age 14-17 years; Keefer, Holden, & Parker, 2013).

The reason for this curvilinear trend may be due to changes in self-concepts from childhood to adolescence (Keefer, Holden, & Parker, 2013). This makes sense given that self-concepts represent an individuals’ perception of his or her own abilities (Marsh, 2007; Shavelson, Hubner, & Stanton, 1976), and TEI represent self-perceived socioemotional competencies. As such, the reason why TEI was found to be highest in childhood may be due to the simplistic and generalizability of children’s self-concepts. At this early developmental stage, children tend to lack the higher-order cognitive skills required to provide accurate self-evaluations, such as perspective taking and abstract reasoning. As a result, children hold overly positive self-perspectives on various ability domains (Keefer, Holden, Parker, 2013).
**Present Study**

The present study examined the relationship between EI and bully/victimization in a large community-based sample of adolescents. The age range of 13 years and older is appropriate because their self-concept of EI should be quite stabilized. In addition, most research on bullying is focused on young children (Eisenberg, Fabes, Spinrad, Ryan, & Schmidt, 2004; Garner & Lemerise, 2007). This is problematic because it suggests that the role of EI in bullying and victimization that occurs during adolescence is not as well understood. Moreover, early adolescence is an important developmental period where socioemotional competencies are beginning to strengthen.

It is also of interest to test whether EI and bullying behaviours/victimization experiences would hold across younger and older adolescent groups. Understanding bullying and EI in younger and older adolescents is vital for two reasons. First, the facets of emotional competence developed throughout adolescence may manifest in different forms compared to that in the early adolescent years (Garner & Hinton, 2010). For example, older children (compared to younger) have a better understanding of the negative consequences associated with expressing the ‘wrong’ emotions in the peer context (Parker & Gottman, 1989). This is both consistent with the developmental theory of EI as well as Lane and Schwartz (1987)’s account of the parallel development between children's cognitive maturation and emotional sophistication. Second, the literature suggests that better developed social skills are related to indirect aggression compared to more direct forms of aggression (Björkqvist et al., 1992; Kaukiainen et al., 2001). Thus, older adolescents may be more likely to show tendencies to bully by socially manipulating others, than to bully using physical intimidation, verbal derogations, or technology. Uncovering these nuances may help us better understand the etiology of different types of bullying.
Relevant Prior Research

Given the link between socioemotional abilities and bullying, it is not surprising that EI has been found to be negatively related to bullying behaviours and victimization. To demonstrate this, a meta-analysis across 19 studies found that individuals with higher EI levels exhibited fewer aggressive behaviours than those with lower EI (Sancho et al., 2014). Importantly, these effects held across different age groups (from childhood to adulthood), cultural contexts (i.e., US, Spain, China, Malaysia, Canada, Australia, and the UK; Sancho et al., 2014), types of aggression (i.e., physical, sexual, or humor-based), and EI assessment method (i.e., self-report or the ability measure).

Similarly, other studies found that enhancing EI levels led to fewer aggressive behaviours among adolescents. For instance, using a sample of 590 Spanish adolescents (46% boys) randomly assigned to either the EI training group or control group conditions, it was found that students in the EI training group reported lower levels of physical/verbal aggression, anger, hostility, personal distress and fantasy compared to students in the control group (Castillo, Salguero, Fernández-Berrocal, & Balluerka, 2013).

These studies demonstrate that EI is involved in bullying and victimization, but one caveat is their use of the global EI score to predict bullying while neglecting the multidimensionality aspect of EI. Using the multidimensionality of EI to better understand the relationship between socioemotional competencies and bullying and victimization is important because simply relying on a global score can mask the unique associations between the constituent EI components and other constructs (Parker, Wood, & Keefer, 2011). Thus, although global EI scores can predict bullying victimization, one might wonder whether different EI dimensions could differentially relate to bullies, victims, and bully-victims.
Bullies. To better understand socioemotional competencies of bullies, the few studies that have used the multidimensionality of EI in relation to aggression have uncovered interesting patterns for which EI dimensions are uniquely related to bullies. However, there exists a caveat in these studies: different models and scales of EI are used which resulted in a fairly heterogenous set of findings. Despite this limitation, there is some general agreement that bullies tend to have trouble managing their emotions. Baroncelli and Ciucci (2014) used the Emotional Intelligence Scale (Schutte et al., 1998) and found that Italian preadolescents who had more difficulty regulating and using emotions were more likely to bully others. Other studies using the Adolescent Swinburne University Emotional Intelligence Test (Adolescent SUEIT) (Luebbers, Downey, & Stough, 2007), which is a modified version of the SUEIT (Palmer & Stough, 2001), found that individuals who were lower on Emotional Management and Control were more likely to become bullies (Schokman et al., 2014). Finally, other researchers argue that maladaptive styles of emotion regulation are related to increased aggressive behavior (Roberton, Daffern, & Bucks, 2012; Garner & Hinton, 2010). In sum, these studies confirm that greater difficulties managing emotions is the impetus of aggressive behaviours in youths.

In addition to low levels of emotional management, low levels in interpersonal skills may also be related to aggression. Studies have shown that bullies tend to show difficulties in the understanding of others’ emotions (Lomas, Stough, Hansen, & Downey, 2012; Schokman et al., 2014) and that they also have difficulties establishing and maintaining mutually satisfying relationships and connecting with others (Parker, Kloosterman, & Summerfeldt, 2014). This may not be surprising, as the tendency to be aggressive generates interpersonal conflict. In addition, meaningful interpersonal connections monopolize on empathy, theory of mind, and social intelligence – components that are negatively related to aggression. Thus, certain EI dimensions
(emotional and stress management and interpersonal abilities) are related to bullying behaviours. But what about victims?

Victims. The finding that emotional understanding is related to bullying behaviours is not without contention. While some researchers argue that understanding of own and others’ emotions contributes to aggression, other scholars suggest that weaker abilities in appraising own and others’ emotions were not associated with bullying behaviours (Baroncelli & Ciucci, 2014). Rather, difficulty understanding emotions, such as the understanding of cultural rules that govern emotional expression, is specific to victimization experiences (Garner & Hinton, 2010). Moreover, emotional regulation, although is related to bullying, may also be related to victimization. Indeed, victims may not be able to handle the stress in response to negative emotions or provocative situations (Cicchetti, Ackerman, & Izard, 1995). In some studies, victims show deficits in ‘emotions direct cognition’ as well as ‘emotional management and control’ (Lomas, Stough, Hansen, & Downey, 2012).

In conclusion, bullies and victims may be low on the same areas of EI, but the distinction in EI profiles between bullies and victims is unclear for several reasons. First, the studies use different EI measurement approaches (i.e., self-report vs. performance tests) and this may explain why the findings regarding which dimensions are related to which bullying activity are inconsistent. Second, EI (including total and dimensions) was not examined in bully-victims, who tend to have the poorest socioemotional functioning compared to bullies and victims. Third, the literature concerning the relationship between the multidimensionality in EI and bullying sub-types is scarce and therefore warrants further empirical exploration.
**EI and Bullying Sub-Types.** Exploring the EI profiles of more nuanced bullying sub-types would help us better understand the etiology of bullying and victimization. However, to date, there has been few explicit studies done on the relationship between EI and physical, verbal, social, and cyberbullying. Despite this, the research on empathy, TOM, social intelligence, and EI have all suggested that certain types of bullies can be especially proficient on different aspects of their socioemotional infrastructure which they may use to their advantage.

Further, researchers have identified the relationship between different levels of EI dimensions on different aggressive behaviours. For example, low levels of emotional understanding and attention to feelings are related to sexual offending (Moriarty, Stough, Tidmarsh, Eger, & Dennison, 2001). On the other hand, difficulty in managing one’s emotions was associated with all types of problem behaviour, while low levels of social skills were specifically related to aggression and delinquency (Siu, 2009). In addition, emotional knowledge may also differentiate victims from perpetrators (Garner & Hinton, 2010). However, these studies did not investigate the relationship between EI dimensions with specific bullying sub-types, with the exception of Baroncelli and Ciucci (2014) and Gower et al. (2014).

Baroncelli and Ciucci (2014) analyzed the differences in trait EI components between individuals who cyberbully and who traditionally bully. Cyber bullies, but not traditional bullies, reported that they were worse at using and regulating emotions (but this relationship was not found when traditional bullying was controlled though it was found when cyberbullying was controlled for traditional bullying and both forms of victimization). Conversely, difficulties in appraising one’s own and others’ emotions were not related to cyber nor traditional forms of bullying (Baroncelli & Ciucci, 2014). Thus, using and regulating emotions seem to predict cyber bullying.
Other studies have also looked at whether EI dimensions can differentially predict bullying types. Using the Bar-On Emotional Quotient Inventory: Youth Version (EQ-i:YV; Bar-On & Parker, 2000), it was found that low overall EI and stress management skills predicted girls’ likelihood of becoming social and physical bullies (Gower et al., 2014). Though this is an intriguing finding, boys were not assessed in this study so it is unknown if this relationship would also be seen in boys.

In effect, only two studies to date examined EI dimension differences by bullying types. Baroncelli and Ciucci (2014) looked at components of TEI in relation to cyber and traditional bullying, however the sub-types of traditional bullying were not examined (i.e., social and verbal bullying). This is problematic because the sub-types of bullying have been found to differ by their nature (i.e., bullying characteristics), antecedents (i.e., risk factors), and outcomes (i.e., emotional consequences; Borg, 1998; Brighi et al., 2012; Gradinger et al., 2009; Juvonen & Gross, 2008; Ortega et al., 2009; Ortega et al., 2012; Sontag et al., 2011; Wang, Nansel, & Iannotti, 2011). Thus, it is plausible that the types of bullying could differ on patterns of EI.

Gower et al. (2014) found that stress management predicted relational and physical bullying in girls, but did not examine this relationship in boys or across different age groups. This is unfortunate given that the literature suggests that EI dimension levels differ significantly as a function of gender and age. To address these gaps, the present study examines whether EI dimensions can differentially predict physical, social, verbal, and cyber-bullying and victimization, and if these relationships hold across age and gender.

The focus on components of socioemotional competencies in relation to bullying and victimization has advanced the psychological field of aggression in youths. Though there are few studies that explicitly examine EI as a whole rather than its specific dimensions, the few studies
that have examined EI in relation to bullying, three limitations are noted: (1) the samples used are typically online-based and focus on younger children only (not adolescents where bullying types may be more nuanced), (2) the four bullying types: physical, verbal, social, and cyber, were not examined in relation to EI dimensions, (3) no studies have yet examined whether the pattern of EI dimensions would hold across the four bullying types while taking into account gender and age differences.

**Objectives of Current Study**

Together, these limitations led to the following objectives for the present study:

(1) To use the EQi:YV, a validated scale for youth, to measure EI in relation to bullying and victimization

(2) To use a community-based adolescent sample in order to extend generalizability of the findings (a limitation in previous work)

(3) To examine different types of bullying and victimization in relation to total EI and various dimensions

(4) To examine whether the relationships between bullying and victimization types and EI dimensions are consistent across gender and age in adolescence.

**Method**

**Participants**

Participants were a community based sample of adolescents \( N = 1,620 \) that ranged in age from 13 to 21 years old \( M = 16.24 \) years, \( SD = 1.19 \). Participants were recruited from public high schools in central Ontario. The sample consisted of 41% males and 59% females and was primarily Caucasian.
Procedure

Participants were recruited via presentations to teachers, school staff members, parents and students. Students and parents signed participant consent forms describing the study. All participants completed the study materials in small group settings under the supervision of teachers and/or members of the research team. Participants were subsequently classified into four groups: 1) as either not being involved in bullying behaviour (81%), 2) being victimized (11%), 3) bullying others (5%), or 4) being both victimized and bullying others (7%).

Measures

Emotional Intelligence. The Bar-On EQ-i:YV (Bar-On & Parker, 2000) measures the level of emotional and social functioning in children and adolescents and consists of 60 items with four subscales: interpersonal; intrapersonal; stress management; adaptability. A total EI score is also calculated. Respondents are asked to indicate how well each item describes the way they feel, think, or act on a four-point Likert scale ranging from 1 ("very seldom or not true of me") to 4 ("very often true or true of me").

Bullying and Victimization. The Bully-Victim Questionnaire (BVQ) by Olweus (1997) was used. This self-report measure assesses the experiences of being a bully and victim of physical, verbal, relational and cyber behaviours. The questionnaire begins with the following definition of bullying: *We say a student is BEING BULLIED when another student, or a group of students, say or do nasty and unpleasant things to him or her. It is also bullying when a student is teased repeatedly in a way he or she does not like or when he or she is deliberately left out of things. But it is NOT BULLYING when two students of about the same strength or power argue or fight. It is also not bullying when the teasing is done in a friendly and playful way.*
The BVQ consists of Part A and Part B. In Part A, the student is asked to answer a general question: ‘‘How often have you been bullied at school in the past couple of months?’’ using the following 5-point rating scale: (0) I have not been bullied in the past couple of months, (1) only once or twice, (2) 3 times a month, (3) about once a week, and (4) several times a week. Using this same rating scale, the student is then asked to give responses to nine statements regarding types of bullying behaviour experienced. Sample statements include, ‘‘I was called mean names, was made fun of, or teased in a hurtful way’’, and ‘‘Other students left me out of things on purpose, excluded me from their group of friends, or completely ignored me’’. Physical bullying is measured by one item (hitting, kicking, pushing, shoving around, or locking indoors); verbal bullying is measured by four items (calling mean names, making fun of or teasing in a hurtful way, calling mean names about race, and calling mean names about religion); relational bullying is measured by two items (socially excluding others, and spreading rumors); and cyber bullying is measured by two items (bullying using a computer or e-mail messages or pictures, and bullying using a cell phone).

In Part B, the general question, statements regarding types of bullying behaviours, and rating scale, are identical to the first part, with the exception that the wording is reversed to reflect bullying others (e.g., ‘‘How often have you bullied others at school in the last couple of months?’’).

A previous study recommended the cutoff point of ‘‘2 or 3 times a month’’ to code a student as involved or noninvolved (Solberg & Olweus, 2003). Therefore, this cutoff score was used to code participants in our study. Specifically, participants were categorized into one of four groups: (1) involved in bullying others only (bullies), (2) involved in being bullied only (victims), (3) involved in both bullying others and being bullied (bully-victims), or (4) not
involved at all (noninvolved).

The questionnaire also included questions assessing participants’ involvement in the four subtypes of bullying/victimization activities. Physical bullying was measured by one item (hitting, kicking, pushing, shoving around, or locking indoors). Verbal bullying was measured by four items (calling mean names, making fun of or teasing in a hurtful way, calling mean names about race, and calling mean names about religion). Relational bullying was measured by two items (socially excluding others, and spreading rumors). Cyber bullying was measured by two items (bullying using a computer or e-mail messages or pictures, and bullying using a cell phone). We took the average scores across the items for each type of bullying and victimization activity and performed a median-split method to derive high versus low groups. The groups coded as high for each type of bullying and victimization activity were considered bullies or victims of that type.

Data analyses

Data were analyzed using Statistica and SPSS for Windows statistical software package, version 17.0.

Results

Table 1 presents the means and standard deviations for the total sample (and by gender) of total bully score, total victimization score, and the five EI scales: Total EI, intrapersonal, interpersonal, adaptability, and stress management. To test for possible gender differences, a series of independent t-tests were conducted for each of the variables presented in Table 1 (details of these analyses are presented in Appendix 1). Males were found to be significantly more likely to be bullies than females, and more likely to be victims than females. Females had
significantly higher Interpersonal and Total EI scores compared to males. Males had significantly higher scores on the Adaptability and Stress Management dimensions.

Appendix 2 presents the means and standard deviations (by gender) of the various EQi:YV scales for the four bully/victimizations groups: 1) not involved in bullying behaviour, 2) victimized, 3) bullying others, or 4) both victimized and bullying others. To explore the relationship between bully-victimization groups and EI, a group (1. not involved, 2. victimized, 3. bullying others, 4. both victimized and bullying) by gender, by type of EI (intrapersonal, interpersonal, adaptability, and stress management) repeated measures ANOVA was conducted with the overall level of EI as the dependent variable. Because the EI variables have unequal numbers of items, this analysis was conducted using mean-item scores for the four EQi:YV scales.

The main effect for gender was not significant, however the main effect for type of EI was significant, $F(3, 1606) = 235.10, p < .001$, as was the type of bully-victimization group, $F(3, 1606) = 29.30, p < .001$. Post hoc analyses found the group not involved with bully-victimization to be significantly higher on overall EI than the other 3 groups, although the other groups were not significantly different from each other.

The gender by type of bully-victimization group interaction was not significant, however the type of bully-victimization group by gender interaction was significant, $F(3, 1606) = 29.30, p < .001$, as was the type of bully-victimization group by type of EI dimension interaction, $F(9, 1606) = 7.30, p < .001$. The 3-way interaction was not significant.
Post hoc analyses found the group not involved with bull-victimization to be significantly higher than the other 3 groups on the interpersonal scale, adaptability scale, and the stress management scale; the group not involved with bull-victimization also scored significantly higher on the intrapersonal scale than victims only. Victims also scored significant higher than bully-victims on the interpersonal and stress management scales. Bullies scored significant higher than bully-victims only on the stress management scale.

Table 2 presents the correlations among total victimization score, total bully score, age, and the EI scores including the four EI dimensions: intrapersonal, interpersonal, adaptability, and stress management, and the total EI score, for the total sample. Table 3 presents the same results separately by gender. For the total sample, there was a moderate to strong correlation \( r = .505 \) between total bully and victimization scores, suggesting that adolescents who engage in bully behaviours are also quite likely to themselves be victimized. Correlations with age suggest that the older the adolescent, the less likely he or she was to engage in bully behaviours or to be victimized. The pattern of correlations also suggest that individuals who are more likely to be victims or bullies tended to have lower EI scores across the various dimensions (all moderate negative correlations). Most notably, victims showed the strongest negative correlation with stress management \( r = -.278 \) whereas bullies showed the strongest negative correlation with total EI \( r = -.297 \).

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Insert Table 2 about here

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The pattern of correlations among the variables reported in Table 3 were quite consistent across males and females. Several differences can be noted however; age and total bully scores were significantly negatively correlated for girls, but not for boys. There was also a negative correlation between total bully scores and intrapersonal scores for girls, which was positive for boys. Stress management and age were significantly correlated for boys but not for girls.

To better understand the unique role specific EI dimensions play in bully and victimization, a series of hierarchical multiple regression analyses were carried-out. In the first set of analyses total victimization score was the dependent variable and age was the control variable entered in Step 1, followed by the four EI dimensions as the predictor variables in Step 2. Separate analyses were conducted for the total sample, as well as for males and females separately. The results of the multiple regression analyses (including partial correlations) are displayed in Table 4.
Victimization Behaviours

The hierarchical regression for victimization in the total sample revealed that at stage one, age contributed significantly to the regression model, $F(1,1535) = 20.531$, $p < .001$, and accounted for 1.32% of the variation of victimization. Introducing the EI variables explained an additional 11% of the variation in victimization and the change in $R^2$ was significant, $F(4,1531) = 48.21$, $p < .001$. When all four of the EI variables were included in the model in stage two, neither intrapersonal nor adaptability were significant predictors of victimization in the total sample. The most important EI predictors of victimization in the total sample were interpersonal and stress management. Together, age and EI accounted for 12.4% of the variance in victimization experience in the total sample.

The hierarchical regression for victimization in boys revealed that at stage one, age contributed significantly to the regression model, $F(1,688) = 11.047$, $p < .05$ but only accounted for 1.6% of the variation of victimization in boys. Introducing the EI variables explained an additional 14% of the variation in victimization in boys and the change in $R^2$ was significant, $F(4,684) = 27.14$, $p < .001$. When all four of the EI variables were included in the model in stage two, neither intrapersonal nor adaptability were significant predictors of victimization in boys. The most important EI predictors of victimization in boys were interpersonal and stress management. Together, age and EI accounted for 15% of the variance in victimization in boys.

The hierarchical regression for victimization in girls revealed that at stage one, age contributed significantly to the regression model, $F(1,841) = 9.458$, $p < .05$ but only accounted for 1.1% of the variation in victimization in girls. Introducing the EI variables explained an additional 10% and the change in $R^2$ was significant, $F(4,837) = 22.36$, $p < .001$. When all four of the EI variables were included in the model in stage two, neither interpersonal, intrapersonal,
nor adaptability were significant predictors of victimization in girls. The most important EI predictor of victimization in girls was stress management. Together, the five independent variables accounted for 11% of the variance in victimization in girls.

**Bullying Behaviours**

In the second set of analyses total bully scores were the dependent variable and age was the control variable entered in Step 1, followed by the four EI dimensions as the predictor variables in Step 2. Separate analyses were conducted for the total sample, as well as for males and females separately. The results of the multiple regression analyses (including partial correlations) are displayed in Table 5. The hierarchical regression for bullying in the total sample revealed that at stage one, age contributed significantly to the regression model, $F(1,1535) = 6.955, p < .05$, but only accounted for .05% of the variation of bullying in the total sample. Introducing the EI variables explained an additional 11% of the variation in bullying in total sample and the change in $R^2$ was significant, $F(4,1531) = 48.21, p < .001$. When all four of the EI variables were included in the model in stage two, adaptability was not a significant predictor of bullying in the total sample. The most important EI predictors of bullying behaviour in the total sample were interpersonal, intrapersonal, and stress management. Together the five variables accounted for 11.2% of the variance in bullying in total sample.

The hierarchical regression for bullying in boys revealed that at stage one, age did not contribute significantly to the regression model, $F(1,688) = 11.047, p = .105$. Introducing the EI variables explained 11% of the variation in bullying in boys and the change in $R^2$ was significant, $F(4,684) = 20.86, p < .001$. When all four of the EI variables were included in the model in stage two, adaptability was not a significant predictor of bullying in boys. The most important EI
predictors of bullying in boys were interpersonal, intrapersonal, and stress management. Together, the five independent variables accounted for 11.2% of the variance in bullying in boys.

The hierarchical regression for bullying in girls revealed that at stage one, age contributed significantly to the regression model, \( F(1,841) = 7.138, p < .05 \) but accounted for only 0.08% of the variation in bullying in girls. When all four of the EI variables were included in the model in stage two, neither intrapersonal nor adaptability were significant predictors of bullying in girls. The most important EI predictor of bullying in girls were interpersonal and stress management. Together, the five independent variables accounted for 10.6% of the variance in bullying in girls.

Types of Bully and Victimization across Gender

Table 6 presents the means and standard deviations for type of bullying and victimization by total sample and gender. A mixed factorial ANOVA was conducted to examine the main effects of gender and type of bully activities as well as the interaction effect between gender and type of bully on the overall level of behavior (see Appendix 3 for details of these analyses). Mauchly’s test indicated that the assumption of sphericity has been violated for the main effects of bully type, \( \chi^2 (5) = .840, p < .001 \). Therefore, degrees of freedom were corrected using the Greenhouse Geisser estimate of sphericity (\( \varepsilon = .894 \)). The results show a significant main effect for bully type, \( F (2.68, 4341.63) = 42.93, p < .001 \). Planned comparisons showed that all bullying types significantly differed from one another (all \( p \)'s < .001). Verbal bullying scored the
highest ($M = 1.31, SD = .62$), followed by physical ($M = 1.30, SD = .63$), social ($M = 1.24, SD = .70$), then cyber ($M = 1.18, SD = .61$).

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There was also a significant main effect for gender, $F(1, 1619) = 58.54, p < .001$. Contrasts revealed that males scored significantly higher than females across the four bully activities in terms of bullying frequency (see Table 6). The interaction effect was also significant, indicating that type of bully activities engaged in significantly differed for boys and girls, $F(2.68, 4341.63) = 21.20, p < .001$. This indicates that gender had different effects on bullying activities.

To break down this interaction, contrasts were performed comparing all bully types to cyber bullying. These revealed significant interactions for physical vs. cyber bullying, $F(1, 1619) = 34.81, p < .001$, and verbal vs. cyber bullying, $F(1, 1619) = 22.33, p < .001$.

Another mixed factorial ANOVA was conducted to examine the main effects of gender and type of victim activity on the overall level of behavior (see Appendix 4 for details of these analyses). Mauchly’s test indicated that the assumption of sphericity had been violated for the main effects of gender, $\chi^2(5) = .798, p < .001$. Therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = .880$). There was a significant main effect for victim type, $F(3, 4273.62) = 90.06, p < .001$. Contrasts revealed that social victimization differed from cyber victimization, $F(1,1619) = 222.71, p < .001$, and verbal victimization differed from cyber victimization, $F(1,1619) = 86.85, p < .001$. Results also revealed a
significant effect for gender, $F(1, 1619)=17.26, p < .001$; males score significantly higher than females on all victim types.

There was also a significant interaction effect between gender and victim type on what variable? $F(2.64, 4273.62) = 21.29, p < .001$. This indicates that gender had a different effect depending on the victimization type. To break down this interaction, contrasts were performed comparing all victimization experiences to cyber victimization. These revealed significant interactions when comparing physical and cyber victimization experiences, $F(1,1619) = 28.45, p < .001$, and verbal and cyber victimization, $F(1,1619) = 19.71, p < .001$. These effects reflect that boys scored higher than girls across victimization experiences, but the magnitude in gender differences across the four types were inconsistent, with the greatest gender difference found in physical victims, followed by verbal, then cyber and finally social.

**Discussion**

The goal of the present study was to better understand the role of EI in bullying and victimization amongst a large community-based adolescent sample. More specifically, we used the EQi:YV to measure trait EI in relation to self-reported bullying and victimization. We also examined which EI dimensions are predictors of bullying and of victimization, with separate analyses by gender. In addition, we explored the well-known sub-types of bullying and victimization activities in relation to EI and whether the relationships between bullying types and EI dimensions are consistent across gender and age in adolescents.

**Preliminary Analyses**

Our preliminary analyses revealed moderate to strong correlations between total bullying, total victimization, age, and the EI scores. First, we found that bullies have often been the target
of victimization themselves. This is a common finding in the literature, consistent for both boys and girls and across different age-groups (e.g., Austin & Joseph, 1996; Espelage & Swearer, 2003; Haynie et al., 2001; Klicpera & Gasteiger Klicpera, 1996; Pellegrini, Bartini, & Brooks, 1999; Schwartz, 2000). Second, we found that all EI dimensions correlated negatively with total victimization and bullying. This finding was also expected since bullying and victimization has previously been found to be negatively related to a cross-section of socioemotional competencies (e.g., Gamez-Guadix et al. 2013; Goldbaum et al. 2003; Kokkinos & Kipritsi, 2012; Lester et al. 2013; Lester and Cross 2015; Olweus, 1994; Perry, Willard, & Perry, 1990).

We also found some interesting gender differences in the overall pattern of relationships between EI and bullying and victimization. Boys in our sample were more likely to have higher bully scores than girls—a finding consistent in the literature (e.g., Bjorkqvist et al., 1992; Li, 2006). We also found gender differences in EI levels that are aligned with previous work on EI in adolescence (e.g., Bar-on, 2006): Girls report higher overall levels of EI than boys, as well as slightly higher levels of intrapersonal scores than boys, which contradicts some of the literature reporting that boys have stronger intrapersonal skills (Furnham, 2000). Girls also reported higher interpersonal EI in our study, which is aligned with the literature (e.g., Brody and Hall, 2000; Hall, 1984; (Bloise & Johnson, 2007; Fivush, Brotman, Buckner, & Goodman, 2000). Boys on the other hand, reported higher adaptability and stress management abilities (e.g., Petrides & Furnham, 2000)

We also examined whether the correlations between total bullying, total victimization, age, and the EI dimensions were consistent for boys and girls. As previously documented in the literature (e.g., Castillo, Salguero, Fernández-Berrocal, & Balluerka, 2013; Sancho et al., 2014) we found that all EI dimensions correlated negatively with overall bullying and victimization in
both genders. Several gender differences were noted however; for example, some specific EI dimensions correlated significantly for boys but not for girls. For example, stress management and intrapersonal skills correlated significantly only for boys, indicating that the link between being better at managing stress and being more self-aware may be male-specific. For girls, on the other hand, it appears that intrapersonal skills are not related to how well one manages stress. In addition, we found that the older the girl, the less likely she was to report bully behaviors, whereas for boys, the older the individual the less likely he would report being a victim. This is a somewhat novel finding; while previous studies have reported that bullying behaviours do in fact decline with age in girls (Farrington, 1993), other studies suggest that bullying behaviours do not decline with age (for both genders), but rather it changes form (i.e., becomes more relational instead of physical or verbal), and that women continue to more likely be the victim compared to men (Wimmer, 2009).

Overall, the gender differences found in our study may be due to the fact that boys and girls cope with emotions differently (e.g., Matud, 2004; Mullis & Chapman, 2000). For instance, girls tend to use more emotion-focused coping, including strategies like relaxation, affective release, engaging in social interactions or problem-avoidant coping (Seiffge-Krenke & Shulman, 1990) as well as resignation (Donaldson et al., 2000). Moreover, girls tend to adopt more maladaptive coping strategies than boys, such as using emotional ventilation and drugs to manage emotions (Dise-Lewis, 1988; Frydenberg & Lewis, 1993). Thus, these gender differences in coping styles may explain why being intrapersonally intelligent was not linked to stress management in girls, as they may turn to external sources to manage negative emotions (Causey & Dubow, 1992; Dise-Lewis, 1988; Donaldson et al., 2000; Frydenberg & Lewis, 1993; Patterson & McCubbin, 1987; Seiffge-Krenke, 1993; Compas et al., 1988; de Anda et al., 2000;
Donaldson et al., 2000). In contrast, boys may be more prone to reflect inwards on oneself—analyzing one’s own feelings, thoughts, and behaviours, which may in turn help them control stress better. Further, these differences in coping strategies may be linked to differences in externalizing behaviours and likelihoods of being a target of aggression as boys and girls age. In other words, overtime girls may learn to adopt skills that may specifically prevent them from behaving aggressively in order to cope with their negative emotions. Whereas boys may learn other skills that may specifically prevent them from becoming targets of bullying. In conjunction to learning specific skills to avoid becoming a perpetrator or a victim in boys and girls, socialization could also play a role (e.g., Coleman, 1961; Eder and Parker, 1987; Lever, 1976; Eisenhart & Holland, 1983; Gilligan, 1982; Thorne, 1986; Valli, 1988). With maturity, girls may feel greater social pressure to be more feminine and less dominant (to not be a bully) whereas boys may feel greater social pressure to be more masculine and more dominant (to not be a victim).

Which EI dimensions predict bullying and victimization?

An important goal of the present study was to examine the unique role played by specific EI dimensions in bullying and victimization. For instance, researchers have reported that emotional abilities differ between bullies and victims (e.g., Garner & Hinton, 2010; Elipe et al., 2012; Casas et al., 2015; Borg, 1998; Brighi et al., 2012; Gradinger et al., 2009; Juvonen & Gross, 2008; Ortega et al., 2009; Sontag et al., 2011). It was therefore expected that different EI factors would differentially predict bullies and victims. In addition, given the gender differences in EI and bullying and victimization, it was expected that different dimensions may predict bullies and victims in boys and girls. Thus, a series of hierarchical multiple regression analyses
were conducted to examine whether certain EI skills are more important than others in predicting victimization and bullying in boys and girls.

We found that within the total sample, after controlling for age, interpersonal skills and stress management were significant predictors of total victimization scores. Although age was a significant predictor, it only explained a small amount of variance in boy and girl victims. After controlling for age, we found that interpersonal skills and stress management significantly predicted victimization in boys, although only stress management significantly predicted victimization in girls. Neither adaptability nor intrapersonal skills were significant predictors of victimization.

In bullying behaviours on the other hand, we found that within the total sample, after controlling for age, intrapersonal, interpersonal, and stress management competencies were significant predictors. Again, although age was a significant predictor, the variance explained in bullying behaviours was small. In addition, age only predicted bullying in boys, and not in girls. This small effect for age in the total sample and in boys suggests that age does not play as big of a role in bullying behaviours as other variables could. We also found that within boys and girls, different dimensions predicted bullying; for boys, intrapersonal, interpersonal, and stress management were significant predictors of bullying behaviours, whereas for girls, only interpersonal and stress management were significant predictors. In conclusion, these findings suggest that not all EI factors contribute similarly to bullying behaviours and victimization vulnerabilities. Instead, some EI skills are more effective than others in predicting bullying and victimization, and these effects also differ with gender.

**Stress Management and Interpersonal Skills.** Overall, interpersonal and stress management skills were robust EI predictors of bullying and victimization in both genders.
Indeed, being able to manage emotions and stress is particularly vital in adolescence, as this developmental period involves dramatic changes in hypothalamic pituitary adrenal (HPA) axis function and stress responsiveness (Romeo, 2013). This transitional period involved in the pre-adult phase typically results in impulsive behaviors and rapid fluctuations in emotions. In turn, these behaviours and changes in emotions may lead to repeated insults and rejection by peers (Marsh, Parada, Craven, & Finger, 2004; Seals & Young, 2003). Adolescents may also dominate others in order to cope with their own stress and negative emotions. In fact, a longitudinal study confirmed that emotion dysregulation mediated the relationship of both peer victimization and stressful life events with aggressive behaviour (Herts, McLaughlin, & Hatzenbuehler, 2012).

Unsurprisingly then, emotional management has been linked to both victimization (e.g., Lomas et al., 2012; Schockman et al., 2014; Shields & Ciccetti, 2001) and bullying (e.g., Baroncelli & Ciucci, 2014; Garner & Hinton, 2010; Luebbers, Downey, & Stough, 2007; Palmer & Stough, 2001; Roberton, Daffern, & Bucks, 2012; Schutte et al., 1998), supporting our findings.

Further, the main gender pattern found for victimization and bullying was that for boys, emotional skills are particularly vital, involving more EI dimensions than girls. For girls on the other hand, the ability to adjust emotions appears to be key to avoiding becoming either a perpetrator or a victim. Indeed, stress management skills can especially protect girls (including those who have already been victims of violence) against victimization and from perpetrating relational aggression and physical violence (Gower et al., 2014). As such, focusing on teaching girls how to develop stress and emotion management skills may be especially fruitful. We also found that age and stress management correlated significantly for boys but not for girls. Stress management skills should develop with maturation regardless of gender. Our finding could be due to the cross-sectional nature of our design, capturing a specific time point in which boys are
beginning to develop stress management skills while girls may have already passed this developmental stage.

In addition to stress management, our finding that interpersonal skills were a predictor of both bullying and victimization in boys and girls confirms the body of research supporting the importance of social relationships and competencies in externalizing behaviours and victimization (e.g., Cook et al., 2010; D'Zurilla & Nezu, 1982; Hoover, Oliver, & Hazler, 1992; Siu, 2009). Indeed, having social support helps alleviate negative emotions and stress (e.g., Ozbay et al., 2007), and having stronger social skills often leads to a greater number of friends and higher social status, which are protectors against victimization (e.g., (Hoover, Oliver, & Hazler, 1992).

**Intrapersonal Skills.** Although stress management and interpersonal skills are strong EI predictors for both genders in bullying and victimization, intrapersonal was, by contrast, not a significant predictor of girl bullying behaviours or victimization experience. This finding suggests that skills associated with being self-aware, self-expressive, independent, and assertive, are unrelated to externalizing behaviours in girls. In boys, however, intrapersonal skills emerged as significant but only in predicting bullies, not victims. This suggests that intrapersonal skills play a unique role in externalizing behaviours. Indeed, intrapersonal skills involve being assertive, and scholars have found that assertiveness correlated positively with verbal aggression and anger. In addition, physical aggression was strongly associated with traits such as assertiveness, as was verbal aggression, but to a lesser degree (Buss & Perry, 1992).

It is however intriguing that intrapersonal skills and bullying behaviour was not significant in girls, and again, the plausible explanation for this finding may be that girls rely on social relationships and affiliations more than boys during adolescence (Cyranowski et al., 2000;
Nolen-Hoeksema & Girgus, 1994; Rudolph, 2002). Thus, instead of tuning into one’s thoughts, feelings, and behaviours (intrapersonal skills), girls may seek others for approval and validation more so than boys. In turn, this need for social approval may prevent girls from becoming aggressors, especially when societal norms dictate that girls be passive, less dominant, more nurturing and emotionally supportive (Coleman, 1961; Eder and Parker, 1987; Eisenhart & Holland, 1983; Gilligan, 1982; Lever, 1976; Thorne, 1986; Valli, 1988). Conforming to these social norms could be viewed as priority during adolescence where gaining popularity and peer acceptance are conducive to one’s self-image (Hay & Ashman, 2003).

**Adaptability.** Adaptability, on the other hand, appears to be the strongest EI dimension in bullies and victims, serving as the only factor that was not predictive of bullying and victimization. Adaptability refers to the ability to adapt and adjust our feelings, thinking and behavior to new situations and conditions (Bar-On, 2006). Thus, adolescent bullies and victims in our study, although experiencing low stress management and interpersonal skills, are actually quite flexible in their thinking and emotions. This finding contrasts some previous work showing that victims have reduced cognitive flexibility (Martin, Nejad, Colmar & Liem, 2013). For example, Medeiros, Torro-Alves, Malloy-Diniz, and Minervino (2016) found that victims, compared to bullies, had a longer Trail Making Test-B (TMT-B) execution time, indicating less efficient performance in the context of cognitive flexibility. Although not statistically significant, they found medium effect sizes to the comparisons between victims and bully-victims ($r = .36$) and between victims and controls ($r = .38$), which indicates a reduction in cognitive flexibility in victims. Similarly, Dertelmann (2011) found lower performance in cognitive flexibility tests and working memory in child victims of abuse (Dertelmann, 2011) and victims of physical or sexual assaults (Stein et al., 2002; Coolidge et al., 2004). In sum, though these studies contrast what we
found, there are also other empirical work suggesting that the ability to adjust and adapt emotions are unnecessary skills to buffer against the likelihood of being a victim or a bully. For example, Burton, Hafetz, and Henninger (2007) found that greater aggression is associated with higher adaptability.

**Sub-Types of bully and victimization activities in relation to EI dimensions**

To better understand bullying and victimization in adolescents, we explored the four sub-types of bullying and victimization activities: physical, verbal, social, and cyber. These types of bullying and victimization activities have been well-distinguished in the literature, showing differences in their nature (i.e., bullying characteristics), antecedents (i.e., risk factors), and outcomes (i.e., emotional consequences; Borg, 1998; Brighi et al., 2012; Gradinger et al., 2009; Juvonen and Gross, 2008; Ortega et al., 2009; Ortega et al., 2012; Sontag et al., 2011; Wang, Nansel, & Iannotti, 2011). Despite these reported differences, there are some reported commonalities in the literature. For example, although these bullying and victimization subtypes have their own unique risk factors, other studies suggest that these four bullying and victimization activities share similar risk factors such as weak socioemotional functioning and poor school climate or social support (Williams & Guerra, 2007) and outcomes, such as psychosomatic problems (Craig, 1998; Crick & Grotpeter, 1995). To date, no one had previously examined the possible link between EI and bullying and victimization types using a large community-based sample. Thus it was unclear whether the four types of bullying and victimization would exhibit different EI patterns, and more importantly, if these patterns are consistent across age and gender in adolescents.

Our analyses confirmed that although gender differs across the EI dimensions, the types of bullying and victimization activities do not. These results contribute to the literature stating
that although bullies and victims’ emotional responses can be different across bullying sub-types (e.g., Ortega et al., 1999), their self-report socioemotional competencies are quite similar. This may be due, in part, to the similarity in risk factors across the bullying types leading to similar socioemotional development. Because similar risk factors predispose one to the same effects of bullying and victimization regardless of the type of activity, these factors may mold socioemotional competencies in the same way.

Our null findings on the differences in bullying and victimization types on their EI patterns contradict some previous research that indicates that there may be differences in socioemotional competencies between the types of bullying and victimization activities. For example, scholars have proposed that intrapersonal skills may differ across types of bullying and victimization. Assertiveness (an intrapersonal trait), for example, has been found to correlate positively with verbal aggression and anger. In addition, physical aggression has been found to be strongly associated with traits such as assertiveness (Buss & Perry, 1992). Further, Baroncelli and Ciucci (2014) found that cyber bullies, but not traditional bullies, were lower in emotional management. However this relationship was not found when traditional bullying was controlled but was found when cyberbullying was controlled for traditional bullying and both forms of victimization. Conversely, difficulties in appraising one’s own and others’ emotions were not related to cyber nor traditional forms of bullying (Baroncelli & Ciucci, 2014). Thus, using and regulating emotions seem to unique to cyber bullying. Moreover, Gower et al. (2014) argued that girls with low overall EI and stress management skills predicted their likelihood of being social and physical bullies.

These differences in empirical findings concerning EI and sub-types of bullying could be due to the different EI approaches or scales used, as well as differences in the sample
characteristics. To illustrate, we used the EQ-i:YV to measure EI and while Baroncelli and Ciucci (2014) also used a trait-based approach to measure EI, the authors used the Emotional Intelligence Scale (EIS, Schutte et al., 1998) in its Italian version for preadolescence (Ciucci, Menesini, Primi, Grazzani Gavazzi, & Antoniotti, 2009). Although the EIS is a widely-used scale to tap into EI, it has also been criticized for its validity such as the scale’s lack of reverse-keyed items and unstable factor structures (e.g., Petrides & Furnham, 2000; Saklofske et al., 2003). In addition, the sample used in the study was Italian whereas our sample was Canadian and consisting of mostly Caucasians. Moreover, although Gower et al. (2014) used the EQ-i:YV to tap into EI, their sample consisted primarily of African Americans and they only sampled on girls and did not account for any gender differences.

To follow, the lack of examination of gender differences in Gower et al. (2014) was a limitation that was addressed in our study. We examined the main effects of gender across types of bullying and victimization activities and its interaction effects. We found that gender differences in bullying and victimization frequency, across the four types of bullying and victimization were inconsistent. Gender differences were most prominent in physical bullying and victimization, followed by verbal, social, and finally cyber. These results are consistent with other empirical work that suggest that boys are significantly more likely to engage in physical bullying and victimization. The gender differences in social bullying being smaller than verbal bullying was surprising, however, as studies have consistently shown that girls are more likely to engage in social bullying than boys. It was therefore expected that the gender differences in social bullying and victimization would be larger than verbal bullying and cyberbullying. In contrast, the gender difference in cyberbullying found in our study was expected; we found that the difference between boys and girls in this type of bullying was minimal compared to the other
sub-types. This is aligned with the general finding across studies which have mainly contradicted one another, asserting either that boys are more likely to engage in cyber bullying, or that girls are more likely to engage in cyber bullying (e.g., Brighi et al., 2012; Burgess-Proctor, Patchin, & Hinduja, 2009; Cook et al., 2010; Erdur-Baker, 2010; Kowalski & Limber, 2007; Li, 2006; Li, 2007; Ybarra, Mitchell, Wolak, & Finkelhor, 2006).

In sum, we may have found that the EI patterns across sub-types of bullying are consistent because the adolescents in our sample may have been exposed to the same environment and factors growing up, leading to similar socioemotional development. This is plausible as the same risk factors tend to contribute to bullying and victimization, regardless of the sub-type, such as parental maltreatment and emotional dysregulation (Shields & Cicchetti, 2001). We also found gender differences to be less pronounced in social bullying than verbal bullying which was surprising considering that girls have been consistently found to more likely to engage in relational aggression than boys (e.g., Crick & Grotpeter, 1995; Lagerspetz, Bjorkqvist, & Peltonen, 1988). When taking into account more recent research on relational bullying however, we find that boys may now be more likely to engage in relational bullying more so than previously found. Specifically, a recent study reported that boys are more likely than girls to be perpetrators of social bullying whereas girls are more likely to be victims of social bullying (Orpinas, McNicholas, & Nahapetyan, 2015). Interestingly, recent studies have also suggested that relational bullying is embedded in cyber bullying – such as attacking others’ social relationships using the computer or cell phone (e.g., accessing acquaintanceships and spreading messages among peers; Jackson, Cassidy, & Brown, 2013). Thus, it appears that relational bullying has evolved over time, with boys more likely to use this type of aggression.
than previously found, and also blending with other types of bullying and means of communication (i.e., cyber) that involve equal participation from both genders.

**Future Directions and Implications**

Our study revealed several findings that could advance the bullying and victimization and EI literature. First, EI plays an imperative role in bullying and victimization within a community-based sample of adolescents. Using this community-based sample of adolescents allowed us to extend generalizability of the findings, which was a limitation in previous work. Most previous research relied on online samples which has some sampling issues that could limit the generalizability of the studies’ findings, such as self-selecting bias and lack of non-response rate tracking (Wright, 2005). Most studies on bullying and victimization also focus on younger children and not adolescents where the bullying types are more nuanced (e.g., Eisenberg, Fabes, Spinrad, Ryan, & Schmidt, 2004; Garner & Lemerise, 2007).

The results of the present study also imply that while improving EI levels overall may be important for preventing bullying and victimization, certain dimensions are more important to target than others. Overall, stress management and interpersonal skills were robust predictors for both genders in total bullying and victimization, even after controlling for age, as aligned with previous research (e.g., Cook et al., 2010; D'Zurilla & Nezu, 1982; Hoover, Oliver, & Hazler, 1992; Lomas et al., 2012; Schockman et al., 2014; Shields & Ciccetti, 2001; Siu, 2009). We suggest then, based on our findings that EI-based interventions employed in anti-bullying programs in general should focus on developing stress management and interpersonal skill in youth. Further, to reap greater benefits from these programs, interventions should focus on developing certain skills for bullies and for victims while also taking gender into account. Specifically, intrapersonal, interpersonal, and stress management should be developed to prevent
bullying behaviours, while interpersonal and stress management should be developed to prevent victimization. In addition, girls may especially benefit from developing skills to control their emotions and stress, because while stress management skills seem to be particularly key in girls in protecting them against victimization and aggression (Gower et al., 2014), it is also one the weaker EI skills.

It is imperative to determine which EI skills should garner the most focus in EI-based interventions to target bullies and victims and also by their gender because programs aimed at reducing problem behaviours and promoting learning, resilience, and wellbeing have been widely accepted in the educational system for school-aged populations (Axelrod, O’Brien, & Weissberg, 2004; Brackett & Katulak, 2006; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Greenberg et al., 2003; Kelly, Longbottom, Potts, & Williamson, 2004; Pelliteri, Dealy, Fasano, & Kugler, 2006; Qualter, Whiteley, Hutchinson, & Pope, 2007).

Another important recommendation derived from our study is that EI-based interventions in bullying prevention programs may not need to be specialized for physical, verbal, social, and cyber bullying behaviours. Rather, a uniform intervention to target all four types of bullying and victimization activities may be most efficient. This would help reduce the cost, time, and effort dedicated to specialized planning/recruitment that would be needed for optimal EI-building and bullying and victimization prevention. This is imperative to consider when designing programs as more and more researchers are studying these types of bullying independently and recommending unique solutions and preventive strategies (e.g., targeting the context of the relationship and situations in relational aggression; focusing on the lack of authority figure involved in cyber bullying, etc.). Although it is important to acknowledge and address some of
the differences in sub-types of bullying in interventions, EI-based intervention specifically need not be as individualized.

Though we found some intriguing results, as with any study, there are limitations to keep in mind when interpreting the results. Although we had a large sample size, the sample was primarily Caucasian. A more diverse sample could ensure greater generalizability. In addition, this present study used only self-report measures to capture bullying behaviours and victimization experiences. This could be problematic because self-report measures are at risk for social desirability and recall bias. Thus, future research could use alternative methods to cross-validate bullying behaviours and victimization experiences in students, such as teachers or principal’s reports of such incidences.

Finally, another limitation is the use of the self-report approach to measure EI. Traditionally, the ability and trait-based models are considered as contradictory approaches to measure EI (e.g., Mayer et al., 2008; O'Boyle et al., 2010; Van Rooy et al., 2005) as they differ in their conceptual definitions, methodological operationalizations (performance vs. self-report), and nomological frameworks (intelligence vs. personality). These theoretical and practical differences consequently render weak to moderate correlations between the two constructs, as they each contribute independently to the prediction of various criteria (Brackett & Mayer 2003; Brannick, Wahi, Arce, & Johnson, 2009; Livingstone & Day, 2005; Van Rooy & Viswesvaran, 2004; Zeidner, Shani-Zinovich, Matthews, & Roberts, 2005). However, the growing modern perspective is that the two models are complementary, such that each model contributes unique and important information about an individual's socioemotional profile (Austin, Parker, Petrides, & Saklofske, 2008; Palmer, Gignac, Ekermans, & Stough, 2008). Aligned with this latter view, future research could examine bullying and victimization using a multimodal approach – i.e.,
using the EQi:YV and the Mayer-Salovey-Caruso Emotional Intelligence Test—Youth Version (MSCEIT-YV) – both validated scales to measure EI in youth.

Moreover, much research on EI and bullying victimization has also relied on cross-sectional data. As such, scholars could conduct longitudinal studies to examine whether these patterns in EI dimensions across the bullying subtypes would remain relatively stable across key developmental periods (e.g., adolescence to emerging adulthood). Perhaps with age, certain EI dimensions may strengthen and become more differentially related to different types of bullying and victimization. As effects of different bullying types are generally similar (e.g., negative impact on psychosocial factors) but can also differ in severity (e.g., effects of cyber bullying are argued to be more severe than traditional types of bullying; Perren et al., 2010), it would be profitable to document changes in EI patterns from the different bullying subtypes experienced in adolescence.
References


Jackson, M., Cassidy, W., & Brown, K. N. (2013). "you were born ugly and youl die ugly too": Cyber-Bullying as Relational Aggression. *in education, 15*(2).


### Table 1

**Means and Standard Deviations (Total Sample and By Gender)**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male</th>
<th>Female</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Total Bully</td>
<td>1.380</td>
<td>.721</td>
<td>1.330</td>
</tr>
<tr>
<td>Total Victim</td>
<td>1.473</td>
<td>.850</td>
<td>1.179</td>
</tr>
<tr>
<td>EI Scales</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total EI</td>
<td>113.58</td>
<td>15.245</td>
<td>115.46</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>36.840</td>
<td>6.337</td>
<td>40.330</td>
</tr>
<tr>
<td>Adaptability</td>
<td>27.900</td>
<td>6.180</td>
<td>27.320</td>
</tr>
<tr>
<td>Stress</td>
<td>34.570</td>
<td>6.290</td>
<td>33.330</td>
</tr>
<tr>
<td>Management</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*n = 1620*
Table 2

*Correlations of total victim, total bully, 5 EI scales, and age for total sample*

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total Victim</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Total Bully</td>
<td>.505**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Total EI</td>
<td>-.258**</td>
<td>-.297**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Intrapersonal</td>
<td>-.053**</td>
<td>.001</td>
<td>.482**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Interpersonal</td>
<td>-.233**</td>
<td>-.268**</td>
<td>.735**</td>
<td>.262**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Adaptability</td>
<td>-.162**</td>
<td>-.123**</td>
<td>.740**</td>
<td>.211**</td>
<td>.468**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>7. Stress</td>
<td>-.278**</td>
<td>-.228**</td>
<td>.630**</td>
<td>.061*</td>
<td>.188**</td>
<td>.216**</td>
<td>-</td>
</tr>
<tr>
<td>Management</td>
<td>-.114**</td>
<td>-.067**</td>
<td>.046</td>
<td>.014</td>
<td>.018</td>
<td>.013</td>
<td>.066*</td>
</tr>
</tbody>
</table>

*Note: * p < .05    ** p < .01*
Table 3

*Correlations of total victim, total bully, 5 EI scales, and age by Gender*

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total Victim</td>
<td>-</td>
<td>.468**</td>
<td>-.057</td>
<td>-117**</td>
<td>-149**</td>
<td>-.306**</td>
<td>-.104**</td>
</tr>
<tr>
<td>2. Total Bully</td>
<td>.510**</td>
<td>-</td>
<td>-.021</td>
<td>-213**</td>
<td>-148**</td>
<td>-.285**</td>
<td>-.091**</td>
</tr>
<tr>
<td>3. Intrapersonal</td>
<td>-.048</td>
<td>.026</td>
<td>-</td>
<td>.260**</td>
<td>.147**</td>
<td>.048</td>
<td>.039</td>
</tr>
<tr>
<td>4. Interpersonal</td>
<td>-.263**</td>
<td>-.239**</td>
<td>.294**</td>
<td>-</td>
<td>.427**</td>
<td>.264**</td>
<td>.038</td>
</tr>
<tr>
<td>5. Adaptability</td>
<td>-.187**</td>
<td>-.139**</td>
<td>.297**</td>
<td>.570**</td>
<td>-</td>
<td>.297**</td>
<td>.035</td>
</tr>
<tr>
<td>6. Stress Management</td>
<td>-.302**</td>
<td>-.260**</td>
<td>.084*</td>
<td>.211**</td>
<td>.126**</td>
<td>-</td>
<td>.057</td>
</tr>
<tr>
<td>7. Age</td>
<td>-.126**</td>
<td>-.062</td>
<td>-.018</td>
<td>.007</td>
<td>-.009</td>
<td>.076*</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note: Correlations for females are reported above the diagonal line. Correlations for males are reported below the diagonal line.*

* p < .05    ** p < .01
Table 4

*Standard regression results for total victim*

<table>
<thead>
<tr>
<th>Model</th>
<th>Independent Variables</th>
<th>B</th>
<th>Beta</th>
<th>Partial Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total Sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>-.039*</td>
<td>-.115</td>
<td>-.115</td>
</tr>
<tr>
<td></td>
<td>R = .115***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F(1,1535) = 20.531</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R²= 0.013</td>
<td></td>
<td></td>
<td>Adjusted $R^2 = .013$</td>
</tr>
<tr>
<td></td>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td>-.032*</td>
<td>-.096</td>
<td>-.102</td>
</tr>
<tr>
<td></td>
<td>Intrapersonal</td>
<td>.003</td>
<td>.016</td>
<td>.016</td>
</tr>
<tr>
<td></td>
<td>Interpersonal</td>
<td>-.023*</td>
<td>-.189</td>
<td>-.173</td>
</tr>
<tr>
<td></td>
<td>Adaptability</td>
<td>-.004</td>
<td>-.035</td>
<td>-.033</td>
</tr>
<tr>
<td></td>
<td>Stress Management</td>
<td>-.024*</td>
<td>-.225</td>
<td>-.228</td>
</tr>
<tr>
<td></td>
<td>R = .352***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F(5,1531) = 43.180</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R²= .124</td>
<td></td>
<td></td>
<td>Adjusted $R^2 = .121$</td>
</tr>
<tr>
<td>2. Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
R = .126*  \quad F(1,688) = 11.047

R² = 0.016  \quad \text{Adjusted } R² = .014

**Step 2: EI Variables**

- **Age**
  - -.042*  
  - -.105  
  - -.113

- **Intrapersonal**
  - .013  
  - .053  
  - .054

- **Interpersonal**
  - -.028*  
  - -.202  
  - -.174

- **Adaptability**
  - -.009  
  - -.066  
  - -.058

- **Stress Management**
  - -.033*  
  - -.244  
  - -.250

R = .388***  \quad F(5,684) = 24.26

R² = 0.151  \quad \text{Adjusted } R² = .144

---

3. **Females**

**Step 1**

- **Age**
  - -.027*  
  - -1.05  
  - -.105

R = .105*  \quad F(1,841) = 9.458

R² = 0.011  \quad \text{Adjusted } R² = .010

**Step 2: EI Variables**

- **Age**
  - -.022*  
  - -.085  
  - -.090

- **Intrapersonal**
  - -.005  
  - -.043  
  - -.043

- **Interpersonal**
  - -.002  
  - -.019  
  - -.019

- **Adaptability**
  - -.005  
  - -.057  
  - -.057
Stress Management

|          | -.020* | -.275 | -.275 |

R = .327***  
F(5,837) = 19.98

R² = 0.107  
Adjusted R² = .101

*Note: *p < .05    **p < .01    ***p < .001
Table 5

*Standard regression results for total bully*

<table>
<thead>
<tr>
<th>Model</th>
<th>Independent Variables</th>
<th>B</th>
<th>Beta</th>
<th>Partial Correlations</th>
</tr>
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<tr>
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</tr>
<tr>
<td>1. Total Sample</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>-.018*</td>
<td>-.067</td>
<td>-.067</td>
</tr>
<tr>
<td>R = .067*</td>
<td>F(1,1535) = 6.955</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²=.112</td>
<td>Adjusted R² = .004</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>-.014*</td>
<td>-.052</td>
<td>-.055</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td></td>
<td>.012*</td>
<td>.080</td>
<td>.081</td>
</tr>
<tr>
<td>Interpersonal</td>
<td></td>
<td>-.026*</td>
<td>-.265</td>
<td>-.237</td>
</tr>
<tr>
<td>Adaptability</td>
<td></td>
<td>.002</td>
<td>.019</td>
<td>.018</td>
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<td>-.015*</td>
<td>-.177</td>
<td>-0.18</td>
</tr>
<tr>
<td>R = .334***</td>
<td>F(5,1531) = 38.44</td>
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<td></td>
</tr>
<tr>
<td>R²=.112</td>
<td>Adjusted R² = .109</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2. Males</td>
<td></td>
<td></td>
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<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>-.021</td>
<td>-.062</td>
<td>-.062</td>
</tr>
<tr>
<td>R = .062</td>
<td>F(1,689) = 2.640</td>
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</table>
R² = .004 Adjusted R² = .002

Step 2: EI Variables

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<tr>
<th></th>
<th>Age</th>
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<th>Adaptability</th>
<th>Stress Management</th>
</tr>
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<tbody>
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<td>-.043</td>
<td>-.045</td>
<td>.023*</td>
<td>.111</td>
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<tr>
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<td>-.025*</td>
<td>-.213</td>
<td>-.180</td>
<td>.003</td>
<td>-.027</td>
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<tr>
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<td>-.024*</td>
<td>-.209</td>
<td>-.212</td>
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R = .335*** F(5,684) = 17.28

R² = .112 Adjusted R² = .106

3. Females

Step 1

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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
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<td>-.016*</td>
<td>-.092</td>
<td>-.092</td>
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<td></td>
<td></td>
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</tbody>
</table>

R = .092* F(1,841) = 7.138

R² = 0.008 Adjusted R² = .007

Step 2: EI Variables

<table>
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<tr>
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<th>Age</th>
<th>Intrapersonal</th>
<th>Interpersonal</th>
<th>Adaptability</th>
<th>Stress Management</th>
</tr>
</thead>
<tbody>
<tr>
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<td>-.013*</td>
<td>-.074</td>
<td>-.077</td>
<td>.003</td>
<td>.042</td>
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<tr>
<td></td>
<td>-.011*</td>
<td>-.142</td>
<td>-.130</td>
<td>-.001</td>
<td>-.020</td>
</tr>
<tr>
<td></td>
<td>-.012*</td>
<td>-.239</td>
<td>-.232</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R = .326*** F(5,837) = 19.905
$R^2 = .106 \quad \text{Adjusted } R^2 = .101$

*Note:* $^* p < .05 \quad ^{**} p < .01 \quad ^{***} p < .001$
Table 6

*Means and Standard Deviations of Type of Victimization and Bullying*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male</th>
<th>Female</th>
<th>Total Sample</th>
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<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Type of Victimization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>1.452</td>
<td>.1.038</td>
<td>1.182</td>
</tr>
<tr>
<td>Social</td>
<td>1.552</td>
<td>.956</td>
<td>1.511</td>
</tr>
<tr>
<td>Verbal</td>
<td>1.517</td>
<td>.899</td>
<td>1.324</td>
</tr>
<tr>
<td>Cyber</td>
<td>1.320</td>
<td>.881</td>
<td>1.254</td>
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<tr>
<td>Type of Bullying</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>1.407</td>
<td>.919</td>
<td>1.092</td>
</tr>
<tr>
<td>Social</td>
<td>1.382</td>
<td>.773</td>
<td>1.238</td>
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<tr>
<td>Verbal</td>
<td>1.443</td>
<td>.788</td>
<td>1.201</td>
</tr>
<tr>
<td>Cyber</td>
<td>1.253</td>
<td>.776</td>
<td>1.123</td>
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</table>

*n = 1620*
Appendix 1

Various t-tests comparing males and females for total victim, total bully, and EI dimensions

<table>
<thead>
<tr>
<th>Variable</th>
<th>t</th>
<th>df</th>
<th>sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
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<tbody>
<tr>
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<td></td>
<td></td>
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<tr>
<td>EI Scores</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Total</td>
<td>-2.612</td>
<td>1612</td>
<td>.009</td>
<td>-1.883</td>
<td>-3.297 to -.469</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>-1.074</td>
<td>1612</td>
<td>.283</td>
<td>-.207</td>
<td>-.585 to .171</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>-12.983</td>
<td>1296</td>
<td>.000</td>
<td>-3.494</td>
<td>-4.037 to -2.952</td>
</tr>
<tr>
<td>Adaptability</td>
<td>1.984</td>
<td>1496</td>
<td>.050</td>
<td>.576</td>
<td>.001 to 1.151</td>
</tr>
<tr>
<td>Stress</td>
<td>3.817</td>
<td>1612</td>
<td>.000</td>
<td>1.242</td>
<td>.604 to 1.881</td>
</tr>
<tr>
<td>Total Bully</td>
<td>7.418</td>
<td>1619</td>
<td>.000</td>
<td>.203</td>
<td>.149 to .257</td>
</tr>
<tr>
<td>Total Victim</td>
<td>4.108</td>
<td>1619</td>
<td>.000</td>
<td>.140</td>
<td>.073 to .206</td>
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</tbody>
</table>

n = 1620
Appendix 2

Means for various EQi:YV scales by gender and group (Bully, victim, bully-victim, and not involved with bully-victimization).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Bully</th>
<th>Victims</th>
<th>Bully-Victims</th>
<th>Controls</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Intra</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>39.033</td>
<td>4.767</td>
<td>39.267</td>
<td>5.213</td>
</tr>
<tr>
<td>Adapt</td>
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<tr>
<td>Stress M.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>32.737</td>
<td>6.272</td>
<td>32.325</td>
<td>7.230</td>
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<tr>
<td>Female</td>
<td>29.533</td>
<td>7.574</td>
<td>30.753</td>
<td>7.909</td>
</tr>
<tr>
<td>Total EI</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Gender</td>
<td>EQ-i:YV</td>
<td>Emot</td>
<td>EQ-i:YV</td>
<td>Emot</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>------</td>
<td>--------</td>
<td>------</td>
</tr>
</tbody>
</table>

*Note: EQ-i:YV = Emotional Quotient-Inventory: Youth Version*
Appendix 3

Repeated Measures Analysis of Variance (ANOVA) between Gender and Type of Bully Activities

<table>
<thead>
<tr>
<th>Sources</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>17.35</td>
<td>1</td>
<td>17.35</td>
<td>58.54</td>
<td>.000</td>
</tr>
<tr>
<td>Bully Type</td>
<td>18.49</td>
<td>3</td>
<td>6.16</td>
<td>42.92</td>
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</tr>
<tr>
<td>Bully Type * Gender</td>
<td>9.13</td>
<td>2</td>
<td>3.40</td>
<td>21.16</td>
<td>.000</td>
</tr>
</tbody>
</table>

\( n = 1620 \)
Appendix 4

Repeated Measures Analysis of Variance (ANOVA) between Gender and Type of Victim Activities

<table>
<thead>
<tr>
<th>Sources</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>8.128</td>
<td>1</td>
<td>8.128</td>
<td>17.270</td>
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<td>Victim Type</td>
<td>59.256</td>
<td>2</td>
<td>22.448</td>
<td>90.057</td>
<td>.000</td>
</tr>
<tr>
<td>Victim Type * Gender</td>
<td>14.006</td>
<td>2</td>
<td>5.306</td>
<td>21.285</td>
<td>.000</td>
</tr>
</tbody>
</table>

\( n = 1620 \)