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**The Influence of Parental and Peer Relationship Factors on Adolescent
Internalizing Behaviour**

by

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Abstract

The present research investigated the ability of parental psychological control, as well as peer overt and relational bullying victimization, to predict adolescent internalizing problems. Specifically, it was examined whether these three variables could individually, as well as interactively, account for depressive and anxious behaviours. Furthermore, the role of gender in moderating these relationships was studied. Three hundred and forty two junior high students reported on their experienced levels of parental control, victimization, and levels of internalizing behaviours. Multiple regression analyses were used. Results indicated that gender, depression scores, and the interaction between psychological control and relational victimization, significantly contributed to levels of anxious behaviours. Furthermore, psychological control, anxiety scores, and the interaction between relational and overt victimization, significantly predicted depressive levels. The study's findings suggest that understanding adolescent internalizing behaviour requires an appreciation of both peer and parental relationship influences. Implications of the findings and future directions are discussed.

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Introduction

Adolescence is a phase of development marked by physical, cognitive and emotional changes, as well as transformations in one's relationships with others (Arnett, 2010; Barber & Harmon, 2002; Baumrind, 1978; Hauser, Powers, & Noam, 1991; Steinberg, 1990). During this period, individuals develop an awareness of the self and experience greater evaluative concerns (Arnett, 2010). Furthermore, emotions, particularly negative ones, are felt more strongly. The transitions experienced by adolescents make them vulnerable to certain developmental challenges including internalizing problems, and specifically, symptoms of anxiety and depression (Costello, Swendsen, Rose, & Dierker, 2008; Degnan, Almas, & Fox, 2010; Nanda, Kotchick, & Grover, 2012; Yeung Thompson & Leadbeater, 2013). It has been suggested that those relationships within an adolescent's immediate environment, such as at home or school, impact their development (Steinberg, 1990). In congruence with this notion, past research has demonstrated a link between anxious and depressive behaviours, and difficulties that adolescents experience with peer and parental relationships (e.g., Knappe et al., 2009). Therefore, the present study examined internalizing problems within the context of these relationships.

Regarding the parent-child relationship, the literature has consistently identified psychological control, which involves manipulative actions by parents to direct an adolescent's behaviour and thoughts, as a negative influence on adolescent anxiety and depressive symptoms (Barber, 1996; Settapani, O'Neil, Podell, Beidas, & Kendall, 2013; Silk, Morris, Kanaya, & Steinberg, 2003;

Steinberg, 1990). Within peer interactions, bullying has been established as a persistent and damaging influence on adolescents (Boivin, Petitclerc, Feng, & Barker, 2010), and has been linked with internalizing problems (Isolan, Salum, Osowski, Zottis, & Manfro, 2013; Kumpulainen, Rasanen, & Puura, 2001). Past work has demonstrated that bullying can be split into two distinct categories: overt bullying (also known as direct bullying) and indirect bullying (also known as relational or social bullying; Archer, 2005; Bauman & Del Rio, 2006), however, most studies have examined bullying strictly as a one-dimensional construct without accounting for the possibility that differential consequences exist, based on the type of victimization (Hampel, Manhal, & Hayer, 2009; Yeung Thompson & Leadbeater, 2012).

Within the study of internalizing behaviours, psychological control, and bullying victimization, gender has been examined as an intervening variable, though findings have not been consistent. However, frequently, females are found to experience more symptoms of anxiety and depression than their male peers (Grills & Ollendick, 2002; Nolen-Hoeksema, 1994), though results are mixed regarding rates of parental control exposed to (e.g., Laird, 2011; Soenens, Luyckx, Vansteenkiste, Duriez, & Goossens, 2008). With respect to victimization, there is substantial support for the notion that boys are more often victims of overt bullying, yet for relational victimization, findings on gender differences are conflicting (Archer, 2004; Card, Stucky, Sawalani, & Little, 2008; Salmivalli, & Kaukiainen, 2004). Furthermore, some studies have shown that females are more likely to experience internalizing problems when faced with psychological control

and victimization (e.g., Pettit, Laird, Dodge, Bates, & Criss, 2001; Rudolph, 2002).

Overall, aspects of both parental (i.e., psychological control) and peer (i.e., bullying victimization) relationships have been demonstrated to be influential factors for adolescent development, and particularly, anxious and depressive behaviours. However, there is still dispute as to the relative contribution of each, and whether one is more impactful (Criss, Shaw, Moilanen, Hitchings, & Ingoldsby, 2009). As well, there exists the possibility of a more complicated situation, such that both factors affect adolescents independently, as well as interactively. Few previous studies have examined the interplay between these two types of relationships (as perceived by adolescents themselves), and none have specifically investigated parental control and victimization concurrently. Such information has potential implications in further understanding adolescent development, as well as regarding the identification of those individuals at increased risk for internalizing problems. Therefore, the current thesis attempted to contribute to the existent body of research by addressing some of the mentioned gaps.

Firstly, the present study examined the ability of psychological control, overt bullying victimization, and relational bullying victimization, to independently account for levels of internalizing problems, with the intention of determining which of the three was the strongest predictor. As well, it was examined whether these three relationship variables interact in predicting levels of anxiety and depression in adolescents. These investigations were undertaken

while acknowledging both form of victimization, as this practice has often been neglected in past work. Lastly, the current research attempted to clarify the effect of gender on the relationship between internalizing behaviours and psychological control, overt victimization, and relational victimization. Therefore, gender was controlled for as a potentially confounding influence, and its role as an intervening variable was explored.

Literature Review

Adolescent Development

Adolescence is a developmental period of dramatic physical, social, cognitive and emotional transitions beginning at puberty and lasting until adulthood (Arnett, 2010; Barber & Harmon, 2002; Baumrind, 1978; Hauser et al., 1991; Steinberg, 1990). It involves individuals readying themselves to take on the roles and responsibilities of being an adult (Arnett, 2010). Adolescents are faced with changes in how they view themselves and experience emotion. During this period, individuals develop the ability to compare their actual self with an ideal or undesirable alternative, as well as experience increased recognition that others can view and judge them. Emotions are often felt more strongly, particularly negative ones including nervousness, embarrassment and loneliness. Adolescence also includes the challenge of developing independence from caregivers and new social relationships outside the home, while also maintaining connections with the family (Arnett, 2010; Barber & Harmon, 2002; Steinberg, 1990). Furthermore, conflict in the home rises as the power differential present in childhood becomes more symmetrically distributed between adolescents and their parents (Arnett, 2010; Baumrind, 1978).

Internalizing Behaviours

Studies of adolescent development attempt to examine the factors affecting one's progression through this stage in a normal and healthy fashion. The great changes that individuals experience during this period lead them to be vulnerable to certain challenges. One commonly accepted conceptualization for

examining adolescent maladjustment is to group behaviours into one of two categories based on the presentation of the symptoms: internalizing and externalizing (Forns, Abad, & Kirchner, 2012). Internalizing behaviours are directed inward at the self and most commonly involve symptoms of depression and anxiety. They are more covert, distressing to the individual, and difficult to detect as compared to externalizing problems, which in contrast, are oriented outwards, generating discomfort for, and conflict with, others in the environment (e.g., aggression or delinquency; Arnett, 2010; Forns et al., 2012).

Although most people experience or display characteristics of internalizing or externalizing problems occasionally, some individuals do so to a greater extent, such that it interferes with their daily functioning (Arnett, 2010). Internalizing behaviours are an important area of research relevant to adolescents with respect to identifying and understanding their etiology, risk factors and development, due to prevalence rates and associated challenges (Bond, Toumbourou, Thomas, Catalano, & Patton, 2005; Costello et al., 2008; Degnan et al., 2010; Nanda et al., 2012; Nansel, Craig, Overpeck, Saluja, & Ruan, 2004; Yeung Thompson & Leadbeater, 2012). Two common types of internalizing problems are anxiety and depression. Although these two disorders possess some symptom commonalities, an estimated comorbidity rate between 15.9% and 61.9%, as well as potentially shared heritability, they are still considered distinct entities (Brady & Kendall, 1992; Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Garber & Weersing, 2010; Hirschfield, 2001). Specifically, anxiety involves heightened worry and fear, whereas depression is characterized by

feelings of hopelessness and lethargy. A further discussion of their overlapping and unique attributes is provided below. The following study focused on internalizing problems prevalent during adolescence, rather than criterion-defined disorders, specifically levels of anxious and depressive behaviours.

Anxiety symptoms. With reference to the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association [APA], 2013), there are multiple different types of anxiety disorders, however, they share common symptoms including feelings of anxiety and worry, avoidance of feared experiences or objects, and impairment in daily functioning. Adolescence is considered a period of development at-risk for the formation of anxiety symptoms and disorders (Romano, Tremblay, Vitaro, Zoccolillo, & Pagani, 2001), and studies examining prevalence have found rates ranging from 15-20% in this age group (Beesdo, Knappe, & Pine, 2009; Gurley, Cohen, Pine, & Brook, 1996; Romano et al., 2001). Even if an adolescent does not meet full criteria for the diagnosis of an anxiety disorder, elevated symptoms lead to many of the same challenges (Grover, Ginsburg, & Ialongo, 2007). Negative correlates of anxious symptomatology for adolescents include the development of other psychiatric disorders and impairments to social and educational experiences (Grover et al., 2007; Nanda et al., 2012; Nansel et al., 2004). In many cases, once experienced, symptoms of anxiety persist across development (Degnan et al., 2010).

Depressive symptoms. Based on the report of the World Health Organization (2008), in 2004 depression was the leading cause of the loss of

healthy and productive years of life. Depressive symptoms can involve dysphoric mood, a loss of interest in daily activities, suicidal ideations and/or attempts, as well as physical symptoms including sleep disturbances, weight changes, and a diminished ability to think or concentrate (APA, 2013). Rates of depressive symptoms increase greatly as individuals move from childhood to adolescence (Cicchetti & Toth, 1998; Costello et al., 2008), with some prevalence rates found to be as high as 16.6% (Bond et al., 2005), and most individuals experiencing recurrent episodes of these symptoms (Kessler & Walters, 1998). Importantly, adolescents with depressive symptomatology are also more likely to experience reoccurring, severe depression as adults (Harrington, Fudge, Rutter, Pickles, & Hill, 1990).

Adolescent relationships. When investigating adolescent development, and challenges such as internalizing symptomatology, it is important to appreciate the many environmental influences that this population is exposed to. Accordingly, some theorists such as Bronfenbrenner (1979; 2005) conceptualize development as the result of an evolving interaction between an individual and their environment. More specifically, it has been suggested that those relationships involved in the immediate contexts of an adolescent's life, such as at home and school, are critical to their growth as a competent individual (Steinberg, 1990). Hence, one course of investigation is to examine adolescent internalizing behaviours within the context of parental and peer relationships. This was the focus of the present research.

In a review of the literature on the role of environmental factors in

internalizing behaviours, Degnan and colleagues (2010) demonstrated that anxiety symptoms were linked to both problematic relationships with parents as well as poor peer relations, including bullying victimization. Others have also noted the relationship between parental, peer, and/or school factors (e.g., attachment and rejection) and experiences of anxiety and depression symptoms (Baumeister & Leary, 1995; Bond et al., 2005; Costello et al., 2008; Knappe et al., 2009; McLeod, Wood, & Weisz, 2007). For example, in a study with over 300 students in grades 7 to 11, Bond et al. (2005) found significant associations between depressive symptoms and protective factors including parental attachment and opportunities for prosocial involvement at school. Similarly, Olson and Goddard (2010) demonstrated that multiple risk factors, including poor familial supervision, significantly predicted depressive symptoms, while school and family rewards for prosocial behaviour was negatively linked to symptomatology. Furthermore, using longitudinal data, it was found that adolescent self-reported feelings of connection to parents, peers and/or school, were linked to lower internalizing behaviours (Costello et al., 2008).

Summary. Adolescence is period of great change and transition, and consequently can involve various physical, social, cognitive and emotional challenges. During this period, individuals begin to evaluate themselves and experience emotions more strongly, particularly negative ones. The changes associated with adolescence make this group vulnerable to some developmental challenges, including internalizing symptoms. Past research has demonstrated that depressive and anxious behaviours are prevalent during adolescence (Costello et

al., 2008; Romano et al., 2001) and are linked to difficulties experienced within parental and peer relationships (e.g., Knappe et al., 2009). In particular, psychological control within the parent-child relationship, and bullying victimization from peers at school, were the focus of the present investigation.

Parental Influences

Research examining the importance of the parent-child relationship on adolescent social, emotional, and behavioural development, has consistently identified two variables as strongly influential within this relationship: parental support and parental control (Barber & Harmon, 2002; Barnes & Farrell, 1992; Feng et al., 2009). These two factors, though they are related and can both be present within the same dyad, affect development differently.

Parental support. Parental support is defined by parental behaviours towards the adolescent that demonstrate acceptance, approval, and love (Barnes & Farrell, 1992; Bean & Northrup, 2009; Schaefer, 1965). This construct is often studied by examining and measuring dimensions such as attachment, involvement, praise, and physical affection (Barnes 1992; Bean, 2009), and has been linearly associated with positive psychosocial adjustment including lower rates of substance abuse and deviant behaviours (Barnes & Farrell, 1992; Bean & Northrup, 2009)), as well as internalizing symptoms (McLeod, Weisz, & Wood, 2007). Based on the premise of attachment theory (Bowlby, 1988), individuals who experience parental warmth and acceptance are more likely to view themselves as having worth, which has subsequently been shown to relate to lower depressive and anxious symptomatology (Goodman, Stroh, & Valdez,

2012; Muris, Meesters, van Melick, & Zwambag, 2001).

Parental control. A significant amount of research has examined parental control, as it has long been believed to play a critical role in adolescent development (Grolnick & Pomerantz, 2009). Schaefer (1965) published one of the first taxonomies of parental control and included two scales: psychological control versus autonomy, and firm versus lax control. The first dimension involved the presence or absence of parental rejection and dominance, whereas the latter scale examined the degree to which parents monitored their children's behaviour and disciplined them. Similarly, Baumrind (1978) used levels of firm enforcement, encouragement of independence and individuality, and hostility, to sort parents into three models: permissive, authoritarian and authoritative. She promoted authoritative parenting, high in enforcement and encouragement, though low in hostility, as most conducive to healthy child development. More recently, Steinberg (1990) generated the term psychological autonomy granting, as an equivalent to Baumrind's concept of encouragement of independence and individuality.

Overall, studies conducted in the area of parental control have often employed multiple terms including demanding, hostile, protective, structure, possessive, strict and pressure, which collectively has created confusion and disorganization within the literature (Grolnick & Pomerantz, 2009). Grolnick and Pomerantz (2009), as well as Marbell and Grolnick (2013), argued that such inconsistencies are responsible for claims that research on parental control has generated varied conclusions. Importantly, as the understanding of parental

control has developed, an appreciation of the dichotomy with parental control has formed: that although intrusiveness and constraints on individuality may be harmful, a lack of guidance and reasonable discipline would be also detrimental to adolescents (Grolnick & Pomerantz, 2009). Thus, the conceptualization of control as a multifaceted construct, with each component having a unique relationship with optimal development, has become commonly accepted (Barnes & Farrell, 1992).

Researchers have divided the construct into two distinct categories: behavioural control and psychological control (Barber, 1996; Barber & Harmon, 2002; Grolnick & Pomerantz, 2009; Marbell & Grolnick, 2013; Steinberg, 1990). This distinction is not a matter of magnitude, but is based on the locus of the control within the child's life and its impact on development. However, in a review of the parental control literature, Grolnick and Pomerantz (2009) asserted that the term 'behavioural control' should be replaced by 'structure' to rid the concept of its negative connotation, and that the term 'control' be related only to 'psychological control'. Thus, the following sections will employ this more recent terminology.

Structure versus psychological control. Structure is overt and relates to behaviour management, with the intention of having adolescents act in normative and appropriate ways, (e.g., assigning a curfew; Barber, 1996; Barber & Harmon, 2002; Doyle & Markiewicz, 2005; Steinberg, 1990). Furthermore, structure entails adolescents being provided with unambiguous rules, limits and expectations, as well as predictable outcomes and constructive feedback

(Grolnick, 2009). Grolnick and Pomerantz (2009) emphasized the misnomer of previous terms for structure (e.g., behavioural control) in that the concept can relate not only to behaviour, but also to thoughts and feelings, as a means to facilitate the internalization of familial or societal values in adolescents. Structure is considered beneficial to development (Barber, 1996; Barber & Harmon, 2002; Doyle & Markiewicz, 2005; Steinberg, 1990). Inadequate behavioural regulation specifically, has been related primarily to externalizing problems including antisocial behaviour, impulsivity, aggression, and precocious sexuality (Barber, 1996; Barber & Harmon, 2002; Lengua, 2006; Pettit et al., 2001).

In contrast to structure, psychological control has been consistently conceptualized as a negative form of control (Barber, 1996; Steinberg, 1990). It is defined by subtle parental behaviours that are intended to direct an adolescent's thoughts and behaviour. Additionally, it is intrusive to development and prevents the formation of an adolescent's identity, that which is separate from their parent(s) (Barber & Harmon, 2002; Baumrind, 1978; Doyle & Markiewicz, 2005; Hauser et al., 1991; Schaefer, 1965). Parental psychological control is unresponsive to an adolescent's needs as its aims are not in the best interest of the youth, but rather to protect parental power within the family, and specifically within the parent-child relationship (Barber, 1996; Barber & Harmon, 2002). This type of parental action involves the manipulation and exploitation of the parent-child relationship and affects child behaviour by withdrawing love (i.e., making love contingent on child's behavior), using excessive criticism, inducing guilt or anxiety, and invalidating feelings (Barber, 1996; Barber & Harmon, 2002; Doyle

& Markiewicz, 2005; Rogers, Buchanan, & Winchel, 2003). The current study focused on psychological control.

Relationship of psychological control with adolescent development.

Psychological control has been shown to have a negative relationship with the healthy social and emotional development of adolescents. In a review of over 70 studies on psychological control, conducted from 1984 to 2001, Barber and Harmon (2002) found that, irrespective of methodology and sample size, all but four studies demonstrated a significant relationship between the construct and various child functioning variables including internalizing problems. In the presence of psychological control, disturbances have also been reported in other areas of adolescent development such as self-esteem, self-efficacy and emotional regulation (Barber, 1996; Frank, Plunkett, & Otten, 2010; Leondari & Kiosseoglou, 2002; Seegan, Welsh, Plunkett, Merten, & Sands, 2012).

Internalizing difficulties are often the focus when investigating psychological control, as they are believed to be the prominent area of negative consequence, particularly for adolescents (Barber, 1996; Barber & Harmon, 2002). Generally, psychological control has been linked with increased internalizing challenges (Conger, Conger, & Scaramella, 1997; Doyle & Markiewicz, 2005; Feng et al., 2009; Rogers et al., 2003) and in particular, symptoms of depression (Barber, 1996; Barber & Harmon, 2002; Pettit et al., 2001; Silk et al., 2003; Soenens, Vansteenkiste, Luyten, Duriez, & Goossens, 2005; Soenens et al., 2008) and anxiety (Nanda et al., 2012; Pettit et al., 2001; Settapani et al., 2013; Silk et al., 2003). For example, one study using a Canadian

sample of 175 adolescents found that, even upon evaluating other relevant variables including parental warmth and attachment style, psychological control was the strongest parental behaviour influencing internalizing difficulties over time (Doyle & Markiewicz, 2005). Furthermore, employing a longitudinal investigation and regression analyses, Doyle and Markiewicz (2005) discovered evidence for a causal relationship. In particular, it was found that greater reported psychological control was predictive of increased internalizing difficulties two years later, though the reverse relationship was not significant (i.e., that psychological control was a response to youth's experiences of internalizing behaviours). Similar predictive qualities of psychological control for anxiety and depression in adolescents was found by Pettit et al. (2001), and specifically just for anxiety by Settapani et al. (2013). In contrast, though, some others have found evidence of the reverse relationship (e.g., Albrecht, Galambos, & Jansson, 2007; Laird, 2001). Specifically, Laird (2011) discovered that self-reported depressive symptoms of adolescents predicted their reports of parental psychological control, specifically their mother's use of control. However, in their analyses, there was substantial overlap in the variance explained by the regression factors (e.g., adolescent depressed mood and maternal education) used to predict psychological control, and together these predictors accounted for only 15% of the variance in reported control.

Self determination theory. Some theorists believe that relationships which are intrusive, inhibit psychological autonomy and deemphasize individuality are problematic (Barber, 1996; Bean & Northrup, 2009). Psychological control is

posited to impact adolescents due to the depreciation of the individual implied by these controlling behaviours, the lack of opportunities to develop one's own identity, and the stifling of one's autonomy (Baumrind, 1978; Doyle & Markiewicz, 2005; Steinberg, 1990). In particular, one theory often utilized to explain the impact of psychological control, as well as structure, on adolescent development, is self-determination theory (SDT). SDT suggests that people innately have the need to feel competent, autonomous, and connected to others (Grolnick, 2003; Ryan & Deci, 2000). The result of these three needs being satisfied is motivation, self-directed interaction with the environment, as well as optimal social and emotional functioning (Grolnick, 2003; Ryan & Deci, 2000). However, when unmet, difficulties, including internalizing symptoms, can occur.

Of these needs, those most relevant to the current study and the examination of structure and psychological control, are competence and autonomy, respectively. It is postulated that structure, and the transmission of feedback, clear expectations and how one's actions relate to consequences, is beneficial to adolescent development because it increases feelings of competence (Marbell & Grolnick, 2013). This idea has been supported by research showing a positive relationship between parents providing structure and academic achievement as well as social, behavioral and perceived cognitive competence (Farkas & Grolnick, 2010; Grolnick & Ryan, 1989; Marbell & Grolnick, 2013).

Related to psychological control is autonomy, the need to feel that one's own behaviours, feelings and thoughts originate from the self (Ryan & Deci, 2000; Soenens et al., 2007). Autonomy is not the equivalent of independence (i.e.,

not relying on others), but instead focuses on volition and feelings of agency. Individuals can feel that they lack autonomy when experiencing pressures to act in a certain way, through guilt inducement or having contingencies placed on affections (Grolnick, 2003). Thus, environmental factors relevant to adolescents that counteract this need, such as the presence of psychological control within the parent-child relationship, are considered detrimental to one's wellbeing (Grolnick, 2003; Ryan & Deci, 2000).

In support of this notion, higher rates of control have been shown to reduce autonomous academic motivation and engagement (Marbell & Grolnick, 2013), while parental endorsement of feelings of choice has been linked to better adolescent functioning, specifically lower depressive symptomology and increased interpersonal adjustment (Marbell & Grolnick, 2013; Soenens et al., 2007). Using structural equation modeling, Soenens et al. (2007) found that parental promotion of volition, and not of independence, was predictive of adolescent psychosocial functioning including depressive symptoms. These results suggest that allowing adolescents to act based on their own will, rather than pressuring them in a particular direction, is important for their development, and is more critical than encouraging adolescent independence from their parents and family. Additionally, in a study of 107 children aged 8 to 11, Nanda and colleagues (2012) used regression analyses to demonstrate a significant relationship between psychological control and symptoms of anxiety. It was also found that children's level of perceived control over their life mediated the relationship between psychological control and internalizing challenges.

Summary. The extensive literature on parent-child relationships has identified two important categories. The first being parental support, which involves acceptance and love (Barnes & Farrell, 1992; Schaefer, 1965), and has been associated with positive psychosocial adjustment (e.g., McLeod, Weisz, et al., 2007). The second parent-child relationship category is best split into two factors: structure and psychological control. Structure involves parents setting limits and providing predictable outcomes for adolescents (Grolnick, 2009), whereas psychological control is defined by actions aimed at directing an adolescent's behaviour and thoughts manipulatively (Barber, 1996; Steinberg, 1990). Research has found that a lack of structure is associated with externalizing problems (e.g., Pettit et al., 2001), and that increased psychological control is linked with higher rates of depressive and anxious symptoms (e.g., Settapani et al., 2013; Silk et al., 2003). To account for these relationships, social determination theory states that an individual's need to feel competent is endorsed in the presence of structure, while psychological control results in the need to feel autonomous being unmet (Grolnick, 2003; Ryan & Deci, 2000). As a result, SDT predicts that an adolescent is likely to experience internalizing behaviours when exposed to parental control, and research has shown support for this notion (e.g., Marbell & Grolnick, 2013).

Bullying Victimization at School

Peer relationships are increasingly important in an adolescent's life and development. One issue that has received significant attention in the past several years due to better education of the topic in conjunction with media exposure,

prevalence rates, and the broad range of developmental consequences, is bullying (Borg, 1998; Carbone-Lopez, Esbensen, & Brick, 2010; Isolan et al., 2013).

Bullying is one of the most common forms of aggression in schools and is believed to impact the most students (Bauman & Del Rio, 2006; Spriggs, Iannotti, Nansel, & Haynie, 2007). In a survey of 28 countries, Due and Holstein (2008) identified that the rate of bullying victimization varied from as low as 6.3% for females in Sweden to 41.4% among boys in Lithuania. Other studies have identified similar frequencies across the globe (e.g., Nansel et al., 2004). Within Canada specifically, rates have been found to range from 12% to 36% (Craig, 1998; Due & Holstein, 2008). Importantly, research has also demonstrated that victimization at school is not typically a single experience, but can be persistent for many years (Boivin et al., 2010; Kumpulainen, Rasanen, & Henttonen, 1999; Olweus, 1997).

There are many different definitions of bullying that have been created and used in both research and practical applications (Arora, 1996; Isolan et al., 2013). However, the one that has become commonly accepted is that put forth by Olweus (1993), which identifies three important components: intentional harm, actions that occur repeatedly over time, and an imbalance in power between the victim and bully that can be either physical or psychological (Hawker & Boulton, 2000). Although research has consistently grouped participants in bullying as one of three types: bullies, bully-victims (i.e., those who have acted as a bully and have been victimized at some point) and victims, the present study focused specifically on victims.

Within the concept of bullying, several forms have been identified, however, some experts in the field focus on two categories: overt bullying (also known as direct bullying) and indirect bullying (also known as relational or social bullying; Archer, 2004; Bauman & Del Rio, 2006; Fitzpatrick & Bussey, 2011; Lansford et al., 2012; Yeung Thompson & Leadbeater, 2012). Overt bullying typically involves physical or verbal aggression (e.g., hitting, calling names), whereas relational bullying is often more covert, and involves social manipulation and harm to one's peer relationships or feelings of inclusion (e.g., purposefully withdrawing friendship, spreading rumors, alienating peers; Bauman & Del Rio, 2006; Cairns, Cairns, Neckerman, Ferguson, & Garipey, 1989; Crick & Grotpeter, 1995).

Common associations between victimization and adolescent well-being. Bullying has been linked with multiple negative psychosocial effects for adolescents (Gini, 2008; Isolan et al., 2013; Kumpulainen et al., 2001; Meland, Rydning, Lobben, Breidablik, & Ekeland, 2010) including those involved as bullies, bully-victims, and strictly victims. The following section, however, focuses specifically on the latter group. With respect to victims, research has linked experiences of victimization with numerous outcomes including feelings of helplessness and vulnerability at school (Borg, 1998; Due & Holstein, 2008; O'Brennan, Bradshaw, & Sawyer, 2009), social isolation (Meland et al., 2010), lower self-esteem (Carbone-Lopez et al., 2010; Hawker & Boulton, 2000), and increased drug and alcohol use (Carbone-Lopez et al., 2010; Nansel et al., 2004), among others. Additionally, the relationship between victimization and various

negative outcomes has been found throughout numerous countries around the world (e.g., Due & Holstein, 2008; Nansel et al., 2004). However, the focus of the present study was on internalizing behaviours, and a significant amount of research on bullying victimization has concentrated on the presence of higher symptom rates of anxiety and depression in the victim population (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Fitzpatrick & Bussey, 2011; Isolan et al., 2013; Kumpulainen et al., 2001; Meland et al., 2010; O'Brennan et al., 2009; Reijntjes, Kamphuis, Prinzie, & Telch, 2010; Rigby, 1999; van Oort, GreavesLord, Ormel, Verhulst, & Huizink, 2011; Yeung Thompson & Leadbeater, 2012). Furthermore, there has been some research which suggests that depressive symptoms are the most common effects of being victimized (e.g., Hawker & Boulton, 2000), and other studies have shown that internalizing challenges persist into adulthood for young victims (Gladstone, Parker, & Malhi, 2006; Klomek et al., 2008).

Interestingly, some studies have found support for a causal link between victimization and internalizing concerns. For instance, in a longitudinal study involving over 2500 junior high students, Bond et al. (2001) discovered that previous experiences of victimization were a strong predictor of the onset of symptoms of anxiety and depression, with up to 30% of depressed adolescents' symptoms directly attributed to past victimization. Similar findings were made in another longitudinal study conducted by Rigby (1999), which examined both junior and senior high school students. Yet, others have supported the hypotheses that existent symptoms somehow solicit bullying experiences, or that there is a cycle between the two variables (Reijntjes et al., 2010). For example, Reijntjes

and colleagues (2010) conducted a meta-analysis and found 15 studies which confirm that victimization predicts internalizing behaviours, however, they also reported a separate set of 11 studies evidencing the opposite relationship.

Although it has been demonstrated that relational and overt bullying are distinct types, a significant amount of work on bullying and its effects has examined it as a one-dimensional construct, without investigating for potential differences in outcomes between victims of the two forms (Hampel et al., 2009; Yeung Thompson & Leadbeater, 2012). Moreover, the research that has accounted for the type of bullying experienced, is mixed. For example, Hampel et al. (2009) found that victims of relational bullying had higher internalizing symptomology than non-victimized adolescents, though there were no significant effects of overt bullying for these types of symptoms. However, the study also reported that overt victims experienced higher rates of negative feelings about themselves as well as increased externalizing problems. In contrast, a study conducted by Prinstein, Boergers, and Vernberg (2001) with a sample of 566 ethnically diverse adolescents, supported the link between internalizing symptoms and both relational and overt bullying, with the highest symptom rates for those victims experiencing both types. Craig (1998) found similar results. Therefore, more work in this area is needed to examine bullying and its effects while accounting for the two distinct forms. Accordingly, the present study attempted this.

Theoretical explanations of bullying consequences. In an attempt to explain the link between bullying victimization and internalizing challenges,

Baumeister and Leary (1995) proposed the “belongingness hypothesis” with support from the literature. According to this theory, human beings have an innate need to form and maintain a minimal quality of relationships with others marked by stability, concern for each other’s welfare, and foreseeable continuance. In accordance with this hypothesis, Baumeister and Tice (1990) posited that there is an evolutionary drive to avoid social exclusion, due to the survival advantage of group membership. Furthermore, they noted that the result of not meeting this need is feelings of distress, such as symptoms of anxiety or depression (Baumeister & Tice, 1990; Leary, 1990, 2005). Specific to youth, Goodenow (1993) identified the importance of an adolescent’s feelings of belongingness and being connected at school, and defined it as the extent to which they feel included and accepted by those in that environment. Overall, although presented by different theorists, the underlying idea is that adolescents, like all other humans, are motivated to seek social inclusion, and are negatively impacted when they are instead rejected by peers.

Baumeister and Leary (1995) found support for their hypothesis from previous studies demonstrating that experiences of relational difficulties and rejection are connected with stress, internalizing difficulties, and various physical illnesses. They explain this relationship as due to adolescents’ lost opportunities to meet their need to belong and have the peer relationships and social experiences necessary for healthy development. Other research has also demonstrated the importance of belongingness, showing a link between social rejection and exclusion, and various consequences including symptoms of anxiety

and depression. For example, in a study of over 2000 adolescents aged 12 to 14, Shochet, Dadds, Ham, and Montague (2006) demonstrated that feelings of belonging at school predicted depressive and anxiety symptoms one year later, while the opposite relationship was not supported. Others (e.g., Cockshaw & Shochet, 2010; Hagerty, Williams, Coyne, & Early, 1996; Jacobson & Rowe, 1999; Shochet, Homel, Cockshaw, & Montgomery, 2008) have made similar findings regarding the relationship between exclusion and internalizing behaviours.

Summary. Bullying is an important and persistent problem facing and affecting adolescents (Boivin et al., 2010), with prevalence rates reported as high as 36% in Canada (Craig, 1998). It is commonly defined by intentional harm, repeated actions, and an imbalance of power (Olweus, 1993), and can be split into two categories: overt bullying (also known as direct bullying) and indirect bullying (also known as relational or social bullying; Archer & Coyne, 2005; Bauman & Del Rio, 2006). Overt bullying involves physical or verbal aggression, and relational bullying typically is more covert and includes social manipulation. In general, victimization has been linked to higher rates of depressive and anxious symptomatology (e.g., Isolan et al., 2013; Kumpulainen et al., 2001; Meland et al., 2010), with research demonstrating the persistent challenges young victims face as adults (Gladstone et al., 2006). Furthermore, some studies have found a causal link between victimization and internalizing concerns (e.g., Bond et al., 2001). Various theorists, with the support of the literature, have suggested that the negative impacts of victimization are a result of its exclusionary nature and

subsequently adolescents' need to belong being thwarted (Baumeister & Leary, 1995; Leary, 1990, 2005; Shochet et al., 2006).

Gender

Within all of the above discussed topics: internalizing behaviours, psychological control and bullying victimization, gender has been studied as a potential intervening variable. Some research supports the notion that being male or female influences symptom rates, as well as affects negative peer and parental experiences. The next sections review relevant research findings and provide some theoretical propositions for why gender differences may exist.

Previous research on gender differences. With respect to internalizing difficulties, some studies have found support for a gender difference in adolescents' experiences of depressive symptoms such that females experience higher rates during this developmental period (Costello et al., 2008; Leadbeater, Thompson, & Gruppuso, 2012; Nolen-Hoeksema & Girgus, 1994). Fewer studies, including that by Jenkins, Goodness, and Buhrmester (2002), which examined depressive symptomatology in grade 6 students, have not replicated this difference. Regarding anxiety, some studies have shown that adolescent females have higher symptoms instances (Grills & Ollendick, 2002; Lewinsohn, Gotlib, Lewinsohn, Seeley, & Allen, 1998), while other research has not supported such differential rates (Leadbeater et al., 2012).

Gender differences concerning experiences of psychological control and bullying victimization have also been reported in the literature, though not consistently. With respect to psychological control, most of the research has found

that boys and girls are exposed to equal rates (Soenens et al., 2008), however, some studies have shown that males report more experiences (e.g., Barber, 1996; Laird, 2011). Interestingly, when examining paternal and maternal control separately, Rogers et al. (2003) found that adolescent boys report greater experiences of control from their fathers, though no gender differences were observed with respect to maternal control. Research on gender differences regarding bullying victimization is also unclear. For adolescents, it is commonly reported that boys typically rely on, and are victims of, direct confrontations and overt bullying more often, whereas females experience and perpetrate higher rates of indirect victimization (Cairns et al., 1989; Crick, Casas, & Nelson, 2002; Crick et al., 2001). Although the trend of males being victims of overt aggression more often has been robustly demonstrated across countries and through meta-analyses (Archer, 2004; Card et al., 2008), some recent work has challenged feminine dominance with regards to relational aggression. In particular, some studies have shown no gender differences (Archer, 2004; Card et al., 2008; Lansford et al., 2012), or that males in fact experience higher rates of indirect bullying compared to females (Leadbeater, Boone, Sangster, & Mathieson, 2006; Salmivalli, & Kaukiainen, 2004).

When examining adolescent internalizing behaviours in conjunction with psychological control and victimization, and including gender as an intervening variable, findings are again mixed. Specifically, in regards to control, the literature demonstrates both the absence of an effect (Herman, Dornbusch, Herron, & Herting, 1997; Soenens et al., 2005), and a stronger relationship

(Conger et al., 1997; Pettit et al., 2001), between psychological control and internalizing symptoms for females. The research on victimization has also produced mixed conclusions. Some studies have shown that adolescent victims of relational bullying experience internalizing difficulties regardless of gender (e.g., Prinstein et al., 2001; Yeung Thompson & Leadbeater, 2012), while others have suggested that the internalizing consequences are greater for adolescent girls (e.g., Rudolph, 2002). Furthermore, with respect to overt bullying, the conclusion that female victims, and not males, experience increased internalizing symptoms (Yeung Thompson & Leadbeater, 2012), as well as the reverse notion (i.e., that males suffer greater consequences; Prinstein et al., 2001), has been supported.

Theoretical explanations for gender differences. In an attempt to account for the gender differences found in the literature, one theoretical explanation is differential gender socialization. This is the notion that males and females are taught what are appropriate actions and attitudes for daily living, based on their gender (Arnett, 2010). For example, females and males are socialized to adopt different goals, which subsequently affects their interactions with others. Specifically, females are more likely than males to value interpersonal closeness and engagement, worry about social approval, offending others, and abandonment, as well as act in the interest of maintaining relationships (Blatt, Hart, Quinlan, Leadbeater, & Auerbach, 1993; Kuperminc, Blatt, & Leadbeater, 1997; La Greca & Lopez, 1998; Rose & Asher, 1999; Rose & Asher, 2004). In contrast, boys are more likely to concern themselves with maintaining privacy, social and physical hierarchy, seeking revenge, and promoting their own

self-interest (Crick & Grotpeter, 1995; Rose & Asher, 1999, 2004). Furthermore, according to the gender intensification hypothesis originally proposed by Hill and Lynch (1983), such differences between males and females become more evident during adolescence due to increased socialization pressures, particularly from parents and peers, to conform to gendered expectations.

To explain differential rates in the type of bullying experienced, theorists have suggested that discrepant gender goals (i.e., physical dominance versus establishing intimate connections with others) lead one gender to be more targeted in a corresponding fashion (i.e., overtly versus relationally; Carbone-Lopez et al., 2010; Crick & Grotpeter, 1995; Crick & Bigbee, 1996). Moreover, to account for symptom discrepancies, Rogers et al. (2003) proposed that as a result of gender differences in goals and values, females may be more likely to respond to events, such as parental attempts at control or peer attacks, by internalizing the negative experiences rather than asserting themselves or their point of view. Similarly, Rose and Rudolph (2006) posited that girls spend more time worrying about their relationships with others. Thus, in conjunction with a higher need for approval, such behaviour likely contributes to difficulties including anxiety and depressive symptomatology. In particular, one widely studied stress response is rumination, which has been found to be a common strategy for females when faced with peer and family problems (Broderick, 1998; Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000; Nolen-Hoeksema & Girgus, 1994). In contrast, males have been shown to use other strategies more often, including distraction and problem solving (Broderick, 1998).

In support of these ideas, with a sample of 250 adolescents, La Greca and Lopez (1998) demonstrated a link between feelings of anxiety and a greater fear of negative evaluation, particularly for females. As well, in a longitudinal study of 474 adolescents, Rudolph and Conley (2005) found that females had more concerns about peer evaluation, and that these heightened levels were associated with increased depressive symptoms both concurrently and over time. Another study found a similar link between the need for social approval and emotional distress (Rudolph, Caldwell, & Conley, 2005).

Summary. Overall, gender findings within the research examining internalizing behaviours, psychological control, and bullying victimization are mixed. However, it is often discovered that females have higher rates of internalizing symptoms (Grills & Ollendick, 2002; Nolen-Hoeksema & Girgus, 1994), and some research also supports the notion that females are more likely to experience depressive and anxiety symptoms in the presence of victimization and parental control (e.g., Pettit et al., 2001; Rudolph, 2002). For this reason, gender was controlled for in the present study as a possibly confounding influence, as well as examined as an intervening variable. To account for those differences found in the literature, theorists look towards gendered values and coping strategies. Specifically, relationship-maintaining goals and worry over social approval, versus concern with dominance and promoting the self, have been examined (e.g., Kuperminc et al., 1997; Rose & Asher, 2004). Additionally, past research has demonstrated links between those values and strategies typically associated with females, and increased internalizing challenges (e.g., Rudolph &

Conley, 2005). Nonetheless, overall, the literature regarding gender differences, with respect to internalizing behaviours, psychological control, and bullying victimization, is inconclusive.

Overall Summary and Rationale for Current Investigation

In conclusion, adolescence is an important phase of development and is a time where youth are influenced by their surroundings and the many emotional and social transitions they experience. Accordingly, it is a period where individuals are vulnerable to developmental challenges, including internalizing behaviours. Aspects of both the parental (i.e., experience of psychological control) and peer (i.e., bullying victimization) relationships have been shown to be critical factors in adolescent depressive and anxious symptomatology (e.g., Settapani et al., 2013; van Oort et al., 2011). However, there is debate regarding the relative contribution of each, and whether parent-child relationships or peer interactions are more important in the development of adolescents (Criss et al., 2009). Some theorists and studies emphasize the importance of familial and parental influences (e.g., Barber & Harmon, 2002), and others suggest peer relationships are most impactful (e.g., Harris, 2005). Furthermore, an alternative perspective is that the situation is not straightforward, and instead parental and peer relationships independently and interactively contribute to adolescent adjustment (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Criss et al., 2009; Mazefsky & Farrell, 2005). However, little examination of the combined effects of these two relationships on internalizing behaviours has occurred, and there is a lack of research specifically integrating experiences of

bullying with other developmental risk factors like psychological control (Bilsky et al., 2013; Criss et al., 2009; Hansen, Steenberg, Palic, & Elklit, 2012; Ma & Bellmore, 2012). In fact, no such published studies were found. Information regarding effects of the two relationships has potentially important implications for intervention, such as the identification of adolescents at higher risk for internalizing difficulties. Therefore, the present study was aimed at this investigation.

The Present Study

The overall purpose of the present research was to explore peer (i.e., overt and relational bullying) and parental (i.e., psychological control) influences on adolescent internalizing problems. Specifically, the study attempted to predict levels of adolescent depressive and anxious behaviour based on self-reports of parental psychological control, as well as peer overt and relational bullying victimization. Furthermore, as gender has inconsistently been shown in past work to play a moderating role in the link between these relationship factors and internalizing problems, it was also investigated in the current study as a potential influence on such behaviours.

One of the objectives of the current thesis was to demonstrate, with the present sample, and similar to previous findings (e.g., Bond et al., 2001; Doyle & Markiewicz, 2005; Pettit et al., 2001; Rigby, 1999), that on their own, psychological control, overt bullying victimization, and relational bullying victimization, all significantly influence levels of adolescent internalizing behaviours. In congruence with past research, it was expected that higher rates of

psychological control, overt victimization, and relational victimization, would each independently be predictive of higher rates of depressive as well as anxious behaviours.

Next, assuming that it would be found that the three relationship variables (psychological control, overt bullying victimization, and relational bullying victimization) would all independently be able to account for some of the variance in both behaviour types, the study attempted to determine which of the three relationship factors was a stronger predictor of anxiety levels, and subsequently, depression levels. The prediction of internalizing behaviours has not been previously investigated in the literature with the inclusion of psychological control, overt bullying victimization, and relational bullying victimization simultaneously, and past research examining this question with specifically the two forms of bullying, has produced mixed finding (e.g., Hampel et al., 2009; Prinstein et al., 2001). Additionally, there is a debate within the literature regarding whether parental or peer relationship factors are more influential on adolescent adjustment (Criss et al., 2009). Therefore, this question was exploratory in nature and no hypothesis was proposed.

Previous research (e.g., Mazefsky & Farrell, 2005) has demonstrated that other types of parental and peer relational factors (e.g., parental monitoring and peer provocation) influence adolescent behaviour (e.g., aggression) differently in the presence of one another. However, an investigation has not been conducted before using psychological control, overt bullying victimization, and relational bullying victimization concurrently. Therefore, the present study contributed to

the existent literature by examining whether these three relationships variables, which have all been shown to relate to adolescent internalizing problems, interact to predict such behaviours. As previous research examining this question is either mixed (i.e., when considering only overt and relational victimization together), or has not yet been completed (with respect to the other variable combinations), this question is exploratory in nature and no hypotheses were made.

Lastly, the research investigated the impact of adolescent gender. Gender has been inconsistently shown to interact with psychological control (e.g., Crawford, Cohen, Midlarsky, & Brook, 2001; Soenens et al., 2005), as well as overt bullying victimization and relational bullying victimization (e.g., Rudolph, 2002; Yeung Thompson & Leadbeater, 2012), with respect to their effects on levels of anxiety and depression. Thus, the research examined the role of gender in influencing the ability of the three relationship variables to predict internalizing behaviours. As the literature review on gender revealed mixed findings regarding whether it moderates the abilities of these three relational variables to account for internalizing problems, no specific hypotheses were adopted for this research question. Instead, it was done as an exploratory investigation.

In accordance with the current study's objectives, the following research questions were investigated:

- 1a. Do aspects of the parental relationship (i.e., psychological control), as well as the peer relationship (i.e., overt and relational bullying), uniquely predict levels of adolescent anxiety and depression?
- b. If so, which of these three factors better accounts for internalizing problems?

- c. Do any of these relationship factors moderate each other's predictive association with anxious and depressive behaviours, such that one variable is better able to account for these problems when examined jointly with another?
2. Does gender influence the ability of each of these three factors in predicting internalizing behaviours?

Method

Participants

A total of 342 junior high students attending seven different schools in the greater Edmonton area, from both public and separate school boards, participated in the study. There were 192 and 149 participants from grade 7 and 8 respectively (1 not specified), with an average age of 12.74 years (207 girls and 134 boys; 1 not specified). Based on demographic information collected from 225 of the students as part of a larger study, participants were predominantly from families whose first language was English (81.0%), while others' first language was noted to be French (2.7%) or other (16.3%). Furthermore, participants' parents were born in the following countries: Canada (79.0%), Philippines (4.5%), United Kingdom (4.0%), India (2.2%), and other (10.3%).

Measures

Social Experience Questionnaire (SEQ). The SEQ (Crick & Grotpeter, 1996) is a self-report instrument designed to assess both overt and relational victimization, as well as experiences of peer prosocial acts (see Appendix A). These three domains correspond to three separate scales containing five items

each, though only those two scales pertaining to overt and relational victimization were examined in the current study. Questions from the overt and relational scales ask respondents how often they have had experienced examples of these types of bullying, and responses to items are provided using a 5-point Likert scale, which ranged from “never” to “all the time”. Total scale scores were calculated by summing responses of all five questions, where higher scores corresponded to higher experiences of victimization. For the present study, reliabilities for the overt and relational victimization scales were $\alpha = .83$ and $\alpha = .84$, respectively, and although originally developed with elementary aged children, the questionnaire’s factor structure has also been replicated with adolescents aged 13-17 (Storch, Crisp, Roberti, Bagner, & Masia-Warner, 2005).

Psychological Control Scale – Youth Self-Report (PCS-YSR). The PCS-YSR (Barber, 1996) is an eight item self-report scale completed by adolescents (see Appendix B). It assesses parents’ level of psychological control towards their adolescent by providing the respondent with statements and having them rate how similar the noted action is to their parents’ behaviour. The statements provide examples of love withdrawal, personal attack, invalidation of feelings and constraint of verbal expression, and adolescents use a 3-point Likert scale (ranging from “not like her (him)” to “a lot like her (him)”) to rate parental similarity. Scores were generated by totaling all question responses, and higher scores corresponded to higher experiences of psychological control. For the present sample, reliability for the scale was $\alpha = .73$.

Behavior Assessment System for Children, Second Edition – Self-

Report of Personality – Adolescent form (BASC-2 SRP-A). The BASC-2 SRP-A (Reynolds & Kamphaus, 2004) is a 176 item self-report, norm-referenced, standardized instrument for individuals aged 12-21. Adolescents are asked to respond using either a true or false format, or with a 4-point Likert scale ranging from “never” to “almost always”. Although there are 16 clinical scales and several other types of scales (e.g., composite) generated by the BASC-2 SRP-A, only the depression (12 items) and anxiety (13 items) clinical scales were of interest in the present study. Internal consistencies for the two scales are reported as $\alpha = .86$ and $\alpha = .88$, respectively, while test-retest reliabilities are $\alpha = .81$ and $\alpha = .69$ (Reynolds & Kamphaus, 2004). Items inquired about respondents’ experiences of depressive (e.g., sadness) and anxious (e.g., worrying) problems. Higher scale scores related to higher levels of these two types of behaviours.

Procedure

Data was collected between October 2008 and May 2009 as part of a larger study that received University ethics approval. Information packages including consent forms were sent home with all students explaining study procedures. Participation was based on parental consent as well as student assent. Students who provided both were subsequently given a package of anonymous self-report questionnaires to fill out during class time, which took approximately 90 minutes. Those students not participating were given material to read on bullying, which was also distributed to participants upon completion of the questionnaires. Furthermore, a list of resources was provided to students to use if any concerns arose based on the study’s subject matter.

Data Analytic Plan

First, descriptive analyses were completed in order to examine demographic information and the variables used in the study. As well, correlations between variables were inspected in order to examine the type (e.g., linear) and direction of the relationships.

In order to answer the questions posed, two separate multiple regressions were run with anxious behaviours and depressive behaviours as the response variables. For each of the regressions, the following variables were entered as forced entry predictors: gender, relational victimization, overt victimization, psychological control, and anxiety or depression (based on which was not the dependent variable at the time). Furthermore, two-way interactions of gender, psychological control, as well as relational and overt victimization, were entered in both regressions to examine all combinations of these four variables and possible moderation effects. All analyses were carried out with significance level of $\alpha = .05$. Prior to any investigation of the regression analyses, assumptions for the multiple linear regressions were checked.

Results

Descriptive Statistics

Table 1 presents means, standard deviations, and ranges for scores on the relational victimization, overt victimization and psychological control scales. As well, descriptive statistics are shown for the depression and anxiety clinical scales. In comparing the two scales from the SEQ: relational victimization and overt victimization, the mean score for relational victimization was slightly higher

though both variables had similar standard deviations. As well, the range was slightly larger for the relational victimization scale. The minimum and maximum scores possible for both of these two scales was 5.00 and 25.00, accordingly. With respect to the psychological control measure (PCS-YSR), the actual mean was close to the median of the scale, where the potential range of scores was 8.00 – 24.00. For the anxiety and depression clinical scales, the scores used were T-scores, with the mean of 50 and the standard deviation of 10. With the study population, the descriptives for the anxiety scale were close to this, though the depression scale was slightly different.

Table 1

Means, Standard Deviations, and Ranges for Scores of Victimization, Psychological Control, as well as Anxiety and Depression

	<i>N</i>	Mean	<i>SD</i>	Range	Skewness	Kurtosis
Relational Victimization	342	9.78	3.71	5.00 – 23.00	.68	.05
Overt Victimization	342	8.35	3.21	5.00 – 20.00	1.02	.47
Psychological Control	342	12.27	3.08	8.00 – 24.00	.89	.56
Anxiety	331	51.64	10.51	33.00 – 83.00	.68	.08
Depression	339	47.56	8.88	40.00 – 86.00	1.72	2.83

To check for univariate normality and the presence of outliers, each variable was examined with respect to skewness and kurtosis. In accordance with Hanneman, Kposowa, and Riddle (2012), there was no presence of skew within the variables (i.e., no values greater than 2.0). Regarding kurtosis, absolute values above 2.0 demonstrate kurtosis (Hanneman et al., 2012). Specifically, positive values indicate a leptokurtic distribution and negative values indicate a platykurtic

distribution. All of the variables, except for depression, fell within acceptable limits. However, van Belle (2002) affirms that the assumption of normality with respect to regression analyses is specific to the error term (i.e., the residuals) of the model, and not the normality of the original data. Thus, the presence of a leptokurtic distribution for depressive scores is not by itself cause for concern and does not preclude the use of regression analyses for the present study. The normality of the residuals is discussed below.

Correlations

Table 2 presents the Pearson correlations that were run between variables used in the regression analyses to examine the type and direction of the relationships. Both anxiety and depression scores were positively correlated with relational victimization, overt victimization, and psychological control. Anxiety and depression were also positively associated. Relational victimization was positively related to overt victimization, and both relational and overt victimization had a positive association with psychological control. With respect to gender, there was a negative correlation between females and overt victimization such that boys were more likely to experience this type of victimization than girls. Interestingly, gender was not significantly associated with relational victimization, psychological control, or either type of internalizing behaviour.

Table 2

Correlations of Gender, Victimization, Control and Behaviour Scores

Variable	1	2	3	4	5	6
1. Gender	1	.00	-.18*	-.07	.06	-.05
2. Relational Victimization		1	.65*	.24*	.42*	.48*
3. Overt Victimization			1	.29*	.41*	.51*
4. Psychological Control				1	.36*	.42*
5. Anxiety					1	.62*
6. Depression						1

Note: Male = 0, Female = 1

* $p < 0.01$

Regression Analyses

To answer all of the research questions, two separate simultaneous multiple regressions were conducted with anxiety and depression scores as the two dependent variables. Relational victimization, overt victimization, and psychological control were entered in both regressions as forced entry predictors. This was done to examine the ability of each, while controlling for the other factors, to account for any variance in levels of anxiety and depression. Furthermore, it was intended that these predictors would be compared to determine which of the three accounted for more of the variability in the two behaviour types. Gender was also added as a predictor due to its correlation with overt victimization (Table 2), and the many gender differences discussed in the adolescent development literature. Therefore, gender was included in order to control for its effects while examining the predictive ability of the other variables. Additionally, for the two regressions, anxiety or depression scores (based on

which was not the dependent variable at the time) were entered into the model. This was based on previous research and theory demonstrating the relationship between these two types of internalizing problems, as well as the significant correlation found between these variables in the present sample. Thus, each was included as an independent variable in order to control for their effect on the other predictor variables, while examining the alternative dependent variable.

In order to investigate whether psychological control, overt victimization and/or relational victimization each explained the variance in anxiety and depression behaviours better, based on the presence of one of the other two relational factors, three interactions were entered into both models. Additionally, the interactions between gender and each of psychological control, overt victimization and relational victimization, were included in both regressions. This was done to assess the role of gender as a moderating variable in the associations between these three relationship variables and levels of both anxiety and depression.

The following assumptions of linear regression, as provided by Chatterjee and Simonoff, (2013), were checked for both models. Linearity was assessed using scatter plots, while the assumptions of normality and constant variance were checked using Q-Q plots and plots of residuals. The analyses confirmed that these three assumptions were met for both regression models. Lastly, independence of predictor variables was examined. In accordance with Chatterjee and Simonoff's (2013) directives, collinearity diagnostics indicated the presence of multicollinearity in both models for all predictors except for depression and

anxiety (when included as predictors for the alternative dependent variable). The presence of multicollinearity makes estimating the true power of predictor variables, and interpreting their coefficients, difficult and unreliable. Therefore, all continuous predictors were centered to reduce collinearity (Cohen, Cohen, West, & Aiken, 2003), and interaction terms were created using these newly centered variables. The assumptions of linear regression (Chatterjee & Simonoff, 2013) were again tested with respect to both models. All assumptions were met, with the problem of multicollinearity being resolved. The regressions were run and the models were found to explain 46% of the variance in anxiety scores ($F(11, 318) = 24.22, p < .001$), and 52% of the variance in depressive scores ($F(11, 318) = 31.27, p < .001$). The full regression results are shown in Table 3.

Table 3

Regression of Gender, Victimization Types, and Control, With Interactions

Predictor Variable	<i>B</i>	<i>SE B</i>	β
Dependent Variable: Anxiety			
Relational Victimization	.18	.27	.06
Overt Victimization	.20	.27	.06
Psychological Control	.40	.24	.12
Gender	2.46	.92	.12**
Depression	.59	.06	.50***
Relational Victimization x Overt Victimization	-.07	.04	-.09
Relational Victimization x Psychological Control	-.10	.04	-.13*
Overt Victimization x Psychological Control	.05	.05	.05
Gender x Relational Victimization	.34	.34	.10
Gender x Overt Victimization	.18	.38	.04
Gender x Psychological Control	.08	.31	.02
Dependent Variable: Depression			
Relational Victimization	.25	.21	.11
Overt Victimization	.37	.21	.13
Psychological Control	.56	.19	.19**
Gender	-.66	.74	-.04
Anxiety	.37	.04	.44***
Relational Victimization x Overt Victimization	.08	.03	.12*
Relational Victimization x Psychological Control	.04	.04	.06
Overt Victimization x Psychological Control	-.00	.04	-.00
Gender x Relational Victimization	-.03	.27	-.01
Gender x Overt Victimization	.19	.30	.05
Gender x Psychological Control	-.22	.25	-.06

Note: Male = 0, Female = 1

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

One of the study aims was to examine whether parental psychological control, overt victimization, and relational victimization each explained the variance in internalizing problems better, based on the presence of one of the other relational factors, or if they were stronger predictors when gender was considered as an intervening variable. With respect to anxiety behaviour, only the interaction term between relational victimization and psychological control was predictive, with the effect being negative ($\beta = -.13, p = .03$). The interaction is shown in Figure 1. This suggests that increases in the interaction term were associated with decreases in levels of anxiety. None of the other interaction terms were significantly associated with anxiety scores. Regarding depressive behaviours, only one interaction term was significant, and is depicted in Figure 2. Specifically, the interaction between relational victimization and overt victimization was predictive of depressive scores, and was positive ($\beta = .12, p = .01$). This indicates that the effect of relational victimization on depressive behaviours is different at different levels of overt victimization. No other significant interaction terms were found for depression scores.

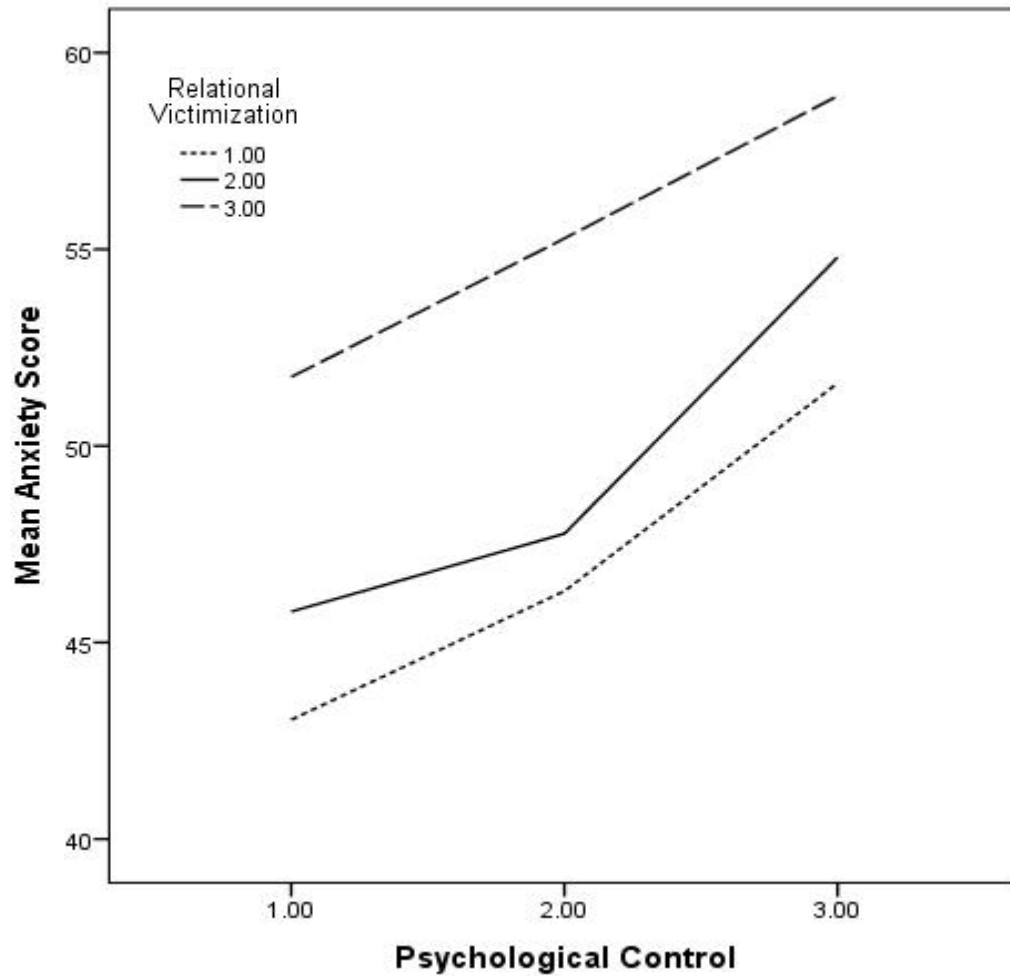


Figure 1. Relational victimization x psychological control interaction for anxiety scores. To make the graph more comprehensible, relational victimization and psychological control were recoded into three groups of approximately equal size. Lower category values correspond to lower predictor variable scores.

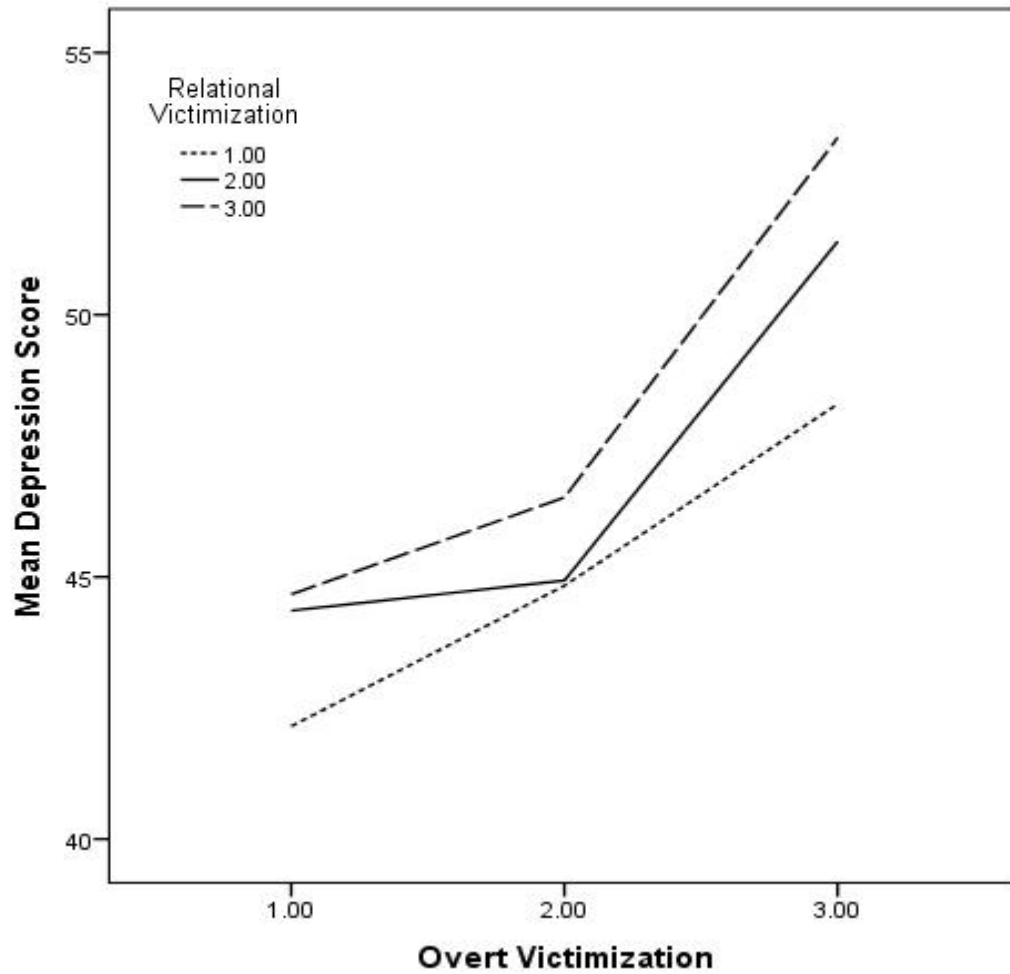


Figure 2. Relational victimization x overt victimization interaction for depression scores. To make the graph more comprehensible, relational victimization and overt victimization were recoded into three groups of approximately equal size. Lower category values correspond to lower predictor variable scores.

Another goal of the present research was to determine whether each of relational victimization, overt victimization, and psychological control, could account for any of the variance in internalizing behaviours. With respect to levels of anxiety, it was found that none of these three relationship factors were significant predictors whilst controlling for the other variables in the model. Though, as previously noted, the interaction between relational victimization and psychological control was significant. Furthermore, gender ($\beta = .12, p = .008$) and depression scores ($\beta = .50, p < .001$) accounted for some of the variance in anxiety behaviours, and these effects were positive. This suggests that increases in depression scores and being female, each independently, while controlling for all other variables in the model, were associated with increases in anxiety levels. For depression, it was found that only psychological control ($\beta = .19, p = .003$) significantly and positively predicted scores. However, the interaction between relational victimization and overt victimization was also significant, as discussed above. Additionally, anxiety scores were a significant, positive predictor ($\beta = .44, p < .001$), such that increases in anxiety levels, whilst controlling for the other variables in the model, were associated with increases in depressive behaviours. Relational victimization, overt victimization, and gender were not significantly related to depression scores.

The next research question was to examine which of relational victimization, overt victimization, and psychological control, were stronger predictors of internalizing behaviours. Regarding levels of anxiety, however, none of these three relationship variables were significant predictors, though gender

and depression were. In comparison, depression was the strongest predictor. In examination of depressive scores as the dependent variable, psychological control was the only significant predictor of the three relationship variables. Anxiety was also significant, and stronger than psychological control, in predicting depressive behaviours.

Discussion

The purpose of the current study was to predict adolescent depressive and anxious behaviours based on experiences of parental psychological control, overt bullying and relational bullying. Gender's unique and independent influence, and its role in moderating the link between each of these three relationship factors and internalizing problems, was also investigated. The following section provides a discussion of the research findings. As well, implications of the findings, limitations of the study, and future directions are examined.

Associations between Control, Victimization, Gender, and Internalizing Behaviours

Most of the results of the Pearson correlations found in the current study were congruent with previous research. Specifically, it was demonstrated that greater anxiety scores were related to higher levels of depressive behaviours in this group of adolescents. This was not surprising given that these symptom types are both classified as forms of internalizing problems (Forns et al., 2012), are prevalent during adolescence, and both have been shown to increase as individuals move into this developmental period from childhood (Beesdo et al., 2009; Bond et al., 2005; Costello et al., 2008; Romano et al., 2001). Levels of

anxiety and depression were also each individually related to levels of parental psychological control, overt victimization as well as relational victimization. This suggests that independently, higher rates of these three relational variables are associated with greater anxiety as well as depression scores. These findings are consistent with past research (e.g., Feng et al., 2009; Meland et al., 2010; Silk et al., 2003; Yeung Thompson & Leadbeater, 2012).

In considering the three relationship variables, there were significant bivariate relationships in all cases. In particular, higher experiences of relational victimization were associated with greater overt victimization. This relationship is reasonable being that they are both forms of bullying, and although they have been shown to be distinct (e.g., Lansford et al., 2012), it has been found that some victims experience both types (e.g., Prinstein et al., 2001). Specifically, in a study of 566 adolescents, Prinstein and colleagues (2001) found that approximately 27% of participants experienced both forms of victimization. In the present study, a greater experience of parental psychological control was also associated with higher levels of overt victimization as well as relational victimization. Interestingly, previous research has demonstrated this link before (Finnegan, Hodges, & Perry, 1998; Ma & Bellmore, 2012; Perry, Hodges, & Egan, 2001). Furthermore, some studies have proposed that parental control predisposes adolescents to experiences of bullying by its negative effect on self-esteem, as well as emotional and physical independence (Finnegan et al., 1998; Perry et al., 2001). However, directionality was not been assessed in these studies and their causal hypotheses are not conclusive. Alternatively, Ma and Bellmore (2012)

demonstrated that physical victimization predicted adolescent reports of maternal control two years later, though experiences of relational bullying did not.

With respect to gender, the only significant relationship found in the current research was with overt victimization, such that boys were more likely to experience this type of bullying. This finding was not unexpected given that it has been robustly demonstrated across countries and by meta-analyses (Archer, 2004; Card et al., 2008). The lack of relationship between gender and psychological control was somewhat anticipated. Although some studies have demonstrated that males report more experiences of parental control (e.g., Laird, 2011), the majority of the literature does not support a gender difference in this area (e.g., Soenens et al., 2008). Interestingly, one longitudinal study by Rogers et al. (2003) with a sample of over 300 adolescents, demonstrated gender differences with respect to paternal psychological control, such that boys reported greater experiences, though no differences for maternal control. The current study, however, did not examine psychological control based on parental gender. With respect to relational victimization, although it was commonly accepted in the past that females experienced higher rates (Cairns et al., 1989), consistent with the current findings, some recent work has challenged this gender difference (e.g., Card et al., 2008; Lansford et al., 2012). Lastly, the majority of past research has found evidence of a gender difference with respect to both anxiety and depressive behaviours (Costello et al., 2008; Grills & Ollendick, 2002), and thus the lack of such relationships in the present study is consistent with only the minority of previous studies (e.g., Jenkins et al., 2002; Leadbeater et al., 2012). For example,

Jenkins et al. (2002) examined depressive symptomatology in grade 6 students and found no gender differences in rates experienced. As well, a longitudinal Canadian study reported equivalent rates of anxiety for males and females, and throughout the seven-year study, there were no gender differences in symptom level changes for the 662 adolescents (Leadbeater et al., 2012). A further examination of gender differences with respect to internalizing behaviours is provided below when regression analyses are discussed.

The Predictive Ability of Psychological Control, Peer Victimization, and Gender

One function of the analyses was to examine the significance of various interaction terms in accounting for anxious and depressive behaviours. Specifically, the study explored whether overt victimization, relational victimization, and parental psychological control, better explained the variance in internalizing problems, based on the presence of one another, or if they were stronger predictors when gender was considered as a moderating variable. These investigations were exploratory in nature, as they had not been examined by previous research.

In predicting anxiety scores, only the interaction between relational victimization and psychological control was significant. This suggests that the effect of relational victimization on anxious behaviour depends on the level of parental psychological control reported. Furthermore, the negative coefficient for this interaction term implies that higher levels of relational victimization, together with lower levels of psychological control (and vice versa), were predictive of

greater anxious behaviour in the present sample. This finding indicates that adolescents who experience greater levels of parental psychological control, even when reporting low levels of relational victimization (as well as the opposite sequence), experience higher levels of anxiety. Therefore, it is important to account for experiences of both of these predictors simultaneously, in order to understand their impact on adolescent anxiety behaviours. Parental control potentially predisposes adolescents to victimization, and in the present study's case, specifically relational victimization (Finnegan et al., 1998; Perry et al., 2001). Possibly, subtle manipulation of an adolescent's thoughts and behaviour by their parents places them in greater danger of experiencing anxiety behaviours when faced with this type of bullying, even at lower levels. Alternatively, the reverse may be true, that relational victimization by peers places adolescents at risk for developing internalizing problems in the presence of parental control, despite an adolescent having relatively few experiences. It is possible that the qualitative similarities between these two predictors accounts for at least some of their interactive relationship. Specifically, both parental control and relational bullying are defined by covert and exploitive actions that manipulate an adolescent by threatening their relationship statuses, as well as their feelings of acceptance and self-worth (Barber, 1996; Barber & Harmon, 2002; Bauman & Del Rio, 2006; Crick & Grotpeter, 1995; Doyle & Markiewicz, 2005).

Regarding depression scores, only the interaction between relational victimization and overt victimization was significant, such that the effect of relational victimization on depression scores was different depending on the level

of overt victimization. The regression coefficient for the interaction term was positive. This finding suggests that increased experiences of both types of bullying, when reported together, significantly predicted greater levels of self-reported depression. Therefore, it would be expected that adolescents who face more relational as well as overt victimization, are worse off with regards to depressive behaviours. Subsequently, this finding highlights the importance of bullying intervention programs that are directed at both forms. As well, it highlights the need to investigate reports of bullying, and that determining the full extent of victimization is valuable for identifying those adolescents at greatest risk for depressive behaviours. Previous research has examined the link between victimization type and internalizing problems. For instance, Hampel et al. (2009) found that relational bullying victims had higher internalizing symptomology than non-victimized adolescents, though this difference was not replicated with respect to victims of overt bullying. Yet, overt victims reported more negative feelings about themselves. Furthermore, work by Prinstein and colleagues (2001) supported the link between internalizing symptoms and the two types of bullying, and found the highest symptom rates to be experienced by those victims of both relational and overt victimization. Although these studies did not examine interactive effects, the current findings are related and build upon this past work by demonstrating the complexity of adolescent internalizing behaviours through finding a significant interaction of these two bullying types.

For levels of anxiety and depression, no other significant interactions between overt victimization, relational victimization, and parental psychological

control were discovered. However, the significant results of the study still emphasize the importance of both parental and peer relationship factors in predicting adolescent development, particularly with respect to internalizing behaviours. Gender was not found to interact with any of the three relationship variables in predicting internalizing problems, suggesting that overt victimization, relational victimization, and parental control do not influence anxious and depressive behaviours differently for females and males. Past work looking at the moderating effect of gender has produced mixed results, and thus the present findings add support to those previous studies which suggest a lack of an effect (e.g., Soenens et al., 2005; Yeung Thompson & Leadbeater, 2012).

The present study also examined whether independently, relational victimization, overt victimization or psychological control could significantly predict levels of anxiety or depression, as well as which of the three variables would explain more of the variance in these behaviours. It was hypothesized that increased rates of relational victimization, overt victimization or psychological control, would each be associated with higher rates of anxious as well as depressive behaviour. However, regarding relative strengths of these potential predictors, the question was purely exploratory in nature due to a lack of previous work examining this question.

For anxiety scores, the hypothesis was not supported, as none of these three relationship factors were significant predictors, while controlling for the other predictors. Furthermore, only psychological control was found to significantly predict depression scores, and thus the hypothesis was not fully

supported for this type of internalizing behaviour either. Several previous studies had led to this hypothesis (e.g., Doyle & Markiewicz, 2005; Feng et al., 2009; Fitzpatrick & Bussey, 2011; Isolan et al., 2013; Soenens et al., 2008). However, some of the past research examining the associations between these three peer and parental variables and internalizing behaviours has been strictly correlational in nature. As well, others have demonstrated that reciprocal effects and other intervening variables complicate these relationships. For example, Isolan et al. (2013) found a significant link between self-reported anxiety symptoms and self-reported victimization frequency, without distinguishing bullying type. However, the study was cross-sectional and used only correlational analyses, thus causal conclusions were not drawn. Interestingly, a study completed by Fitzpatrick and Bussey (2011) demonstrated significant correlations between experiences of relational bullying and both depressive and anxious symptoms using a sample of over 600 adolescents. As well, through regression analyses, they supported the notion that victimization predicted both symptom types. Similarly, Settapani et al. (2013) showed that over a one-year period, decreases in maternal psychological control predicted decreases in youth anxiety symptoms. However, some other studies have demonstrated that existent internalizing symptoms solicit experiences of bullying (Reijntjes et al., 2010) or parental psychological control (Laird, 2011), while others have established the presence of a reciprocal relationship between such variables (e.g., Soenens et al., 2008). Using a longitudinal design, Rogers and colleagues (2003) found stronger support for the notion that adolescent internalizing symptoms lead parents to use increased rates of control, than the

reverse hypothesis. Though, this study reported high levels of stability in internalizing behaviours over the one-year period, but the same was not found with respect to experience of control, which may have accounted for some of the findings. Furthermore, Soenens et al. (2005) found support for adolescent perfectionism as mediating the link between parental psychological control and symptoms of depression.

Overall, the results of the current study with regards to main effects, in conjunction with past research and the significant interaction findings, suggest that it is important to examine other variables in order to understand the ability of relational victimization, overt victimization or parental psychological control to predict anxiety or depressive behaviours. It may be that the attempts of the current study to use relational victimization, overt victimization and psychological control to explain variance in internalizing problems on their own, while controlling for the other predictors, did not fully capture the complex reality which exists. Furthermore, attempts to ascertain the relative strength of these three variables, in accounting for internalizing behaviours independently, may also have been based on too simplistic of a conceptualization.

With respect to gender, it was discovered that being female was associated with increases in levels of anxiety, though no significant association was found with depressive behaviours. Gender's ability to explain some of the variance in anxiety scores is congruent with the majority of past research which has demonstrated that females experience higher rates of such symptoms during adolescence (Grills & Ollendick, 2002; Lewinsohn et al., 1998). Although there

was not a significant correlation found between gender and levels of anxiety, a bivariate correlation, unlike regression, does not account for the other predictors that may be involved in explaining some of the total variation in the behaviours. The current study findings suggest that gender is a significant predictor of anxiety scores when the other predictor variables are entered and controlled for.

Regarding depression, past research has commonly found that females experience more symptoms than males (e.g., Costello et al., 2008; Leadbeater et al., 2012). Thus, the current study's finding is congruent with the minority of previous work, which has not replicated a gender difference (e.g., Jenkins et al., 2002). This may be partially explained by the average age of the study's sample (12.74 years), which is similar to Jenkins et al.'s (2002) sample (11.92 years), and somewhat younger than the sample of others who have found a significant gender difference in depressive behaviours (e.g., average age of the sample was 15.99 years and 15.52 years in Costello et al.'s (2008) and Leadbeater et al.'s (2012) studies, respectively). Therefore, the discrepancy in depression scores between males and females may not be as pronounced yet, in the current study's younger sample.

Overall, both the significant and insignificant gender results suggest that although parents and other adults working with adolescents may be likely to expect more internalizing behaviours from females, these challenges should not be overlooked in males.

With respect to the two internalizing problems, both were found to be significant predictors for each other. Interestingly, of all the predictor variables entered into the regression models, anxiety and depression were the strongest in

explaining variance in the dependent variables. This suggests that knowing the presence of one type of behaviour is the best information to use in order to determine the likelihood of the other form of internalizing behaviour. This finding is not surprising since there is a high rate of comorbidity of these internalizing challenges, with estimates of co-existing diagnoses ranging from 15.9% to 61.9%, as well as some symptom overlap and evidence of an underlying shared heritability (Brady & Kendall, 1992; Costello et al., 2003; Garber & Weersing, 2010; Hirschfeld, 2001). Therefore, recognizing the existence of behaviour from one kind of internalizing challenge may suggest that further investigation is valuable in order to understand and treat the full extent of problems experienced by an adolescent. However, as was evidenced by the differential predictors for these two behaviour types within the current thesis, they do retain some distinct characteristics.

Limitations

There are some limitations of the current research, which may have impacted the results and generalizability of findings beyond the study's sample. Firstly, the sample came from predominately English-speaking (81.0%) and Canadian born (79.0%) families. Thus, the representativeness of the results with respect to adolescents with other demographic qualities is somewhat questionable.

Another limitation of the present study exists with the sole reliance on self-report measures. Although the majority of research examining parental control utilizes measures tapping adolescent perspectives (Barber, 1996; Barber & Harmon, 2002), and many studies on bullying have done the same (e.g., Bond et

al., 2001; Fitzpatrick & Bussey, 2011), it is possible that the lack of other informants in the current thesis produced results which are not fully informed. It may be possible that adolescent perspectives of their parents' or peers' behaviour are not entirely accurate (Ma & Bellmore, 2012), and thus the use of family members and/or teacher as sources of information may be helpful. For example, adolescents suffering from internalizing problems may be biased in their perception of others' behaviour and more likely to interpret actions as malicious and hurtful (Rogers et al., 2003). However, the use of other informants (e.g., parents, teachers) presents other drawbacks. For example, parents have been shown to report their behaviour more favorably than others (Schwarz, Barton-Henry, & Pruzinsky, 1985), and regarding victimization at school, teachers may not be aware of the full extent of bullying, particularly for the more covert, relational acts (Ma & Bellmore, 2012). Furthermore, previous studies employing multiple informants, including mothers, fathers, siblings, and teachers, have reported only low to moderate inter-rater agreement (e.g., Pettit et al., 2001; Rogers et al., 2003; Schwarz et al. 1985). Nonetheless, the inclusion of other informants may have led to a different understanding than what is offered by the present study.

A third limitation of the current research lies in the use of depression and anxiety scores as the dependent variables. This choice, and the results of the study, implies that certain predictor variables cause these internalizing behaviours. However, some of the insignificant effects may be explained by previous work, which suggests that such problems in fact predict experiences like parental control

(e.g., Laird, 2011) and victimization (e.g., Reijntjes et al., 2010). For example, a longitudinal study by Albrecht et al. (2007) demonstrated that over a two-year period, adolescent internalizing challenges, defined by difficulties with mood, separation from loved ones and anxiety symptoms, were predictive of reports of parental control. Additionally, a meta-analysis investigating the relationship between victimization and internalizing challenges found support for causation in both directions (Reijntjes et al., 2010). Therefore, a more complex model, which examines internalizing behaviours not only as dependent measures, but also as predictors of overt victimization, relational victimization, and parental psychological control, could investigate such potential multidirectional relationships.

Future Directions and Implications

Despite the mentioned limitations of the current thesis, the results provide support for the role of overt victimization, relational victimization, and parental psychological control in adolescent experiences of anxiety and depression, with some effects being interactive. However, the models proposed were not able to fully account for internalizing challenges experienced, and due to the importance in understanding and dealing with such problems, more research is needed. One possible way to expand upon the present study would be to investigate these predictors using a longitudinal design. Although the thesis was able to account for some of the variance in levels of anxiety and depression, the measures assessed the dependent and independent variables concurrently. Thus, a fuller understanding of the sequence of events, as well as the development and impact

of changes in these behaviours, may emerge upon an investigation over a period of time.

Another possible method to build upon the current findings, and address some of the limitations, is to examine these constructs within a more complex modeling approach, specifically with the use of structural equation modeling. This procedure would allow an investigation of the relationships between multiple dependent and independent variables at the same time, and enable the dependent variables (e.g., depression and anxiety scores) from the current study to also be studied simultaneously as predictors of other variables (e.g., control and victimization). Thus, the complex relationships of these constructs may be more fully appreciated and understood. As well, such a procedure would create the opportunity to address that past research which suggests different directions of causality than was examined (e.g., Laird, 2011; Reijntjes et al., 2010).

Overall, the results of the current research emphasize the importance of examining both parental and peer relationship factors when working with adolescents, particularly those with internalizing concerns. The study findings suggest that when trying to account for adolescent depression and anxiety problems, the identification of relational challenge in one setting (i.e., home or school), warrants an investigation into the other environment(s) in order to fully understand the nature and extent of the difficulty. As well, it may be advantageous to explore any connections or similarities between those relational challenges present across settings (e.g., are both of a covert nature), as, in accordance with the present study's findings, when concurrent, these problems (e.g., parental

control and relational victimization) can result in unique consequences for the youth. When working with adolescents, it may also be helpful to identify how they perceive their relationships with others (i.e., parents and peers) in their environments. For example, if other information is unavailable (e.g., objective data), or intervention involves only the adolescent (i.e., not peers or family members), understanding and focusing work on adjusting these perceptions may be beneficial, as previous research has shown that adolescents with internalizing problems may be biased in their perception of others (Rogers et al., 2003), which may further contribute to their developmental challenges.

Conclusion

In summary, the present thesis adds to the existent literature on adolescent development by examining adolescents' perceptions of peer and parental relationships concurrently, with regards to their effects on internalizing behaviours. Specifically, it was found that gender, levels of depression, and the interaction between psychological control and relational victimization, significantly predicted anxious behaviour. Additionally, the ability of psychological control, symptoms of anxiety, and an interaction between relational and overt victimization, to account for depressive scores, was demonstrated. Therefore, the current study emphasizes the need to examine multiple avenues in understanding adolescent developmental challenges such as internalizing behaviour, and highlights the complexity of this subject. Future research, which investigates these constructs while accounting for multidirectional relationships,

and examines them over time, is likely to further clarify this complex and important issue.

References

- Albrecht, A. K., Galambos, N. L., & Jansson, S. M. (2007). Adolescents' internalizing and aggressive behaviors and perceptions of parents' psychological control: A panel study examining direction of effects. *Journal of Youth and Adolescence*, *36*(5), 673-684. doi: 10.1007/s10964-007-9191-5
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Archer, J. (2004). Sex differences in aggression in real-world settings: A meta-analytic review. *Review of General Psychology*, *8*(4), 291-322. doi: 10.1037/1089-2680.8.4.291
- Archer, J., & Coyne, S. M. (2005). An integrated review of indirect, relational, and social aggression. *Personality and Social Psychology Review*, *9*(3), 212-230. doi: 10.1207/s15327957pspr0903_2
- Arnett, J. J. (2010). *Adolescence and emerging adulthood: A cultural approach*. Saddle River, NJ: Prentice Hall.
- Arora, C. M. J. (1996). Defining bullying: Towards a clearer general understanding and more effective intervention strategies. *School Psychology International*, *17*(4), 317-329. doi: 10.1177/0143034396174002

- Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development, 67*(6), 3296-3319. doi: 10.1111/j.1467-8624.1996.tb01915.x
- Barber, B. K., & Harmon, E. L. (2002). Violating the self: Parental psychological control of children and adolescents. In B. K. Barber (Ed.), *Intrusive parenting: How psychological control affects children and adolescents* (pp. 15-52). Washington, DC: American Psychological Association.
- Barnes, G. M., & Farrell, M. P. (1992). Parental support and control as predictors of adolescent drinking, delinquency, and related problem behaviors. *Journal of Marriage and Family, 54*(4), 763-776. Retrieved from <http://www.jstor.org/stable/353159>
- Bauman, S., & Del Rio, A. (2006). Preservice teachers' responses to bullying scenarios: Comparing physical, verbal, and relational bullying. *Journal of Educational Psychology, 98*(1), 219-231. doi: 10.1037/0022-0663.98.1.219
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497-529. doi: 10.1037/0033-2909.117.3.497
- Baumeister, R. F., & Tice, D. M. (1990). Anxiety and social exclusion. *Journal of Social and Clinical Psychology, 9*(2), 165-195. doi: 10.1521/jscp.1990.9.2.165

- Baumrind, D. (1978). Parental disciplinary patterns and social competence in children. *Youth & Society*, 9(3), 239-267. doi: 10.1177/0044118X7800900302
- Bean, R. A., & Northrup, J. C. (2009). Parental psychological control, psychological autonomy, and acceptance as predictors of self-esteem in latino adolescents. *Journal of Family Issues*, 30(11), 1486-1504. doi: 10.1177/0192513X09339149
- Beesdo, K., Knappe, S., & Pine, D. S. (2009). Anxiety and anxiety disorders in children and adolescents: Developmental issues and implications for DSM-V. *Psychiatric Clinics of North America*, 32(3), 483-524. doi: 10.1016/j.psc.2009.06.002
- Bilsky, S. A., Cole, D. A., Dukewich, T. L., Martin, N. C., Sinclair, K. R., Tran, C. V., . . . Maxwell, M. A. (2013). Does supportive parenting mitigate the longitudinal effects of peer victimization on depressive thoughts and symptoms in children? *Journal of Abnormal Psychology*, 122(2), 406-419. doi: 10.1037/a0032501
- Blatt, S., Hart, B., Quinlan, D., Leadbeater, B., & Auerbach, J. (1993). Interpersonal and self-critical dysphoria and behavioral problems in adolescents. *Journal of Youth and Adolescence*, 22(3), 253-269. doi: 10.1007/BF01537791

- Boivin, M., Petitclerc, A., Feng, B., & Barker, E. D. (2010). The developmental trajectories of peer victimization in middle to late childhood and the changing nature of their behavioral consequences. *Merrill-Palmer Quarterly*, *56*(3), 231-260. Retrieved from <http://digitalcommons.wayne.edu/mpq/vol56/iss3/3>
- Bond, L., Carlin, J. B., Thomas, L., Rubin, K., & Patton, G. (2001). Does bullying cause emotional problems? A prospective study of young teenagers. *BMJ: British Medical Journal*, *323*(7311), 480-484. doi: 10.1136/bmj.323.7311.480
- Bond, L., Toumbourou, J. W., Thomas, L., Catalano, R. F., & Patton, G. (2005). Individual, family, school, and community risk and protective factors for depressive symptoms in adolescents: A comparison of risk profiles for substance use and depressive symptoms. *Prevention Science*, *6*(2), 73-88. doi: 10.1007/s11121-005-3407-2
- Borg, M. G. (1998). The emotional reaction of school bullies and their victims. *Educational Psychology*, *18*(4), 433-444. doi: 10.1080/0144341980180405
- Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. New York, NY: Basic Books.
- Brady, E. U., & Kendall, P. C. (1992). Comorbidity of anxiety and depression in children and adolescents. *Psychological Bulletin*, *111*(2), 244-255. doi: 10.1037/0033-2909.111.2.244

- Broderick, P. C. (1998). Early adolescent gender differences in the use of ruminative and distracting coping strategies. *The Journal of Early Adolescence, 18*(2), 173-191. doi: 10.1177/0272431698018002003
- Bronfenbrenner, U. (1979). *Ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*. Thousand Oaks, CA: Sage Publications.
- Cairns, R. B., Cairns, B. D., Neckerman, H. J., Ferguson, L. L., & Garipey, J. (1989). Growth and aggression: I. childhood to early adolescence. *Developmental Psychology, 25*(2), 320-330. doi: 10.1037/0012-1649.25.2.320
- Carbone-Lopez, K., Esbensen, F., & Brick, B. T. (2010). Correlates and consequences of peer victimization: Gender differences in direct and indirect forms of bullying. *Youth Violence and Juvenile Justice, 8*(4), 332-350. doi: 10.1177/1541204010362954
- Card, N. A., Stucky, B. D., Sawalani, G. M., & Little, T. D. (2008). Direct and indirect aggression during childhood and adolescence: A meta-analytic review of gender differences, intercorrelations, and relations to maladjustment. *Child Development, 79*(5), 1185-1229. doi: 10.1111/j.1467-8624.2008.01184.x

- Chatterjee, S., & Simonoff, J. S. (2013). *Wiley handbooks in applied statistics : Handbook of regression analysis*. Somerset, NJ: Wiley. doi: 10.1002/9781118532843
- Cicchetti, D., & Toth, S. L. (1998). The development of depression in children and adolescents. *American Psychologist*, *53*(2), 221-241. doi: 10.1037/0003-066X.53.2.221
- Cockshaw, W. D., & Shochet, I. (2010). The link between belongingness and depressive symptoms: An exploration in the workplace interpersonal context. *Australian Psychologist*, *45*(4), 283-289. doi: 10.1080/00050061003752418
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Collins, W. A., Maccoby, E. E., Steinberg, L., Hetherington, E. M., & Bornstein, M. H. (2000). Contemporary research on parenting: The case for nature and nurture. *American Psychologist*, *55*(2), 218-232. doi: 10.1037//0003-066X.55.2.218
- Conger, K. J., Conger, R. D., & Scaramella, L. V. (1997). Parents, siblings, psychological control, and adolescent adjustment. *Journal of Adolescent Research*, *12*(1), 113-138. doi: 10.1177/0743554897121007

- Connor-Smith, J. K., Compas, B. E., Wadsworth, M. E., Thomsen, A. H., & Saltzman, H. (2000). Responses to stress in adolescence: Measurement of coping and involuntary stress responses. *Journal of Consulting and Clinical Psychology, 68*(6), 976-992. doi: 10.1037/0022-006X.68.6.976
- Costello, D. M., Swendsen, J., Rose, J. S., & Dierker, L. C. (2008). Risk and protective factors associated with trajectories of depressed mood from adolescence to early adulthood. *Journal of Consulting and Clinical Psychology, 76*(2), 173-183. doi: 10.1037/0022-006X.76.2.173
- Costello, E. J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry, 60*(8), 837-844. doi: 10.1001/archpsyc.60.8.837
- Craig, W. M. (1998). The relationship among bullying, victimization, depression, anxiety, and aggression in elementary school children. *Personality and Individual Differences, 24*(1), 123-130. doi: 10.1016/S0191-8869(97)00145-1
- Crawford, T. N., Cohen, P., Midlarsky, E., & Brook, J. S. (2001). Internalizing symptoms in adolescents: Gender differences in vulnerability to parental distress and discord. *Journal of Research on Adolescence, 11*(1), 95-118. doi: 10.1111/1532-7795.00005

- Crick, N. R., & Bigbee, M. A. (1996). Gender differences in children's normative beliefs about aggression: How do I hurt thee? let me count the ways. *Child Development, 67*(3), 1003-1014. doi: 10.1111/1467-8624.ep9704150180
- Crick, N. R., Casas, J. F., & Nelson, D. A. (2002). Toward a more comprehensive understanding of peer maltreatment: Studies of relational victimization. *Current Directions in Psychological Science, 11*(3), 98-101. doi: 10.1111/1467-8721.00177
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development, 66*(3), 710-722. doi: 10.1111/j.1467-8624.1995.tb00900.x
- Crick, N. R., & Grotpeter, J. K. (1996). Children's treatment by peers: Victims of relational and overt aggression. *Development and Psychopathology, 8*(2), 367-380. doi: 10.1017/S0954579400007148
- Crick, N. R., Nelson, D. A., Morales, J. R., Cullerton-Sen, C., Casas, J. F., & Hickman, S. E. (2001). Relational victimization in childhood and adolescence: I hurt you through the grapevine. In J. Juvonen, & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 196-214). New York, NY: The Guilford Press.
- Criss, M. M., Shaw, D. S., Moilanen, K. L., Hitchings, J. E., & Ingoldsby, E. M. (2009). Family, neighborhood, and peer characteristics as predictors of child

adjustment: A longitudinal analysis of additive and mediation models. *Social Development, 18*(3), 511-535. doi: 10.1111/j.1467-9507.2008.00520.x

Degnan, K. A., Almas, A. N., & Fox, N. A. (2010). Temperament and the environment in the etiology of childhood anxiety. *Journal of Child Psychology and Psychiatry, 51*(4), 497-517. doi: 10.1111/j.1469-7610.2010.02228.x

Doyle, A. B., & Markiewicz, D. (2005). Parenting, marital conflict and adjustment from early- to mid-adolescence: Mediated by adolescent attachment style? *Journal of Youth and Adolescence, 34*(2), 97-110. doi: 10.1007/s10964-005-3209-7

Due, P., & Holstein, B. E. (2008). Bullying victimization among 13 to 15 year old school children: Results from two comparative studies in 66 countries and regions. *International Journal of Adolescent Medicine and Health, 20*(2), 209-221. doi: 10.1515/IJAMH.2008.20.2.209

Farkas, M. S., & Grolnick, W. S. (2010). Examining the components and concomitants of parental structure in the academic domain. *Motivation and Emotion, 34*(3), 266-279. doi: 10.1007/s11031-010-9176-7

Feng, X., Keenan, K., Hipwell, A. E., Henneberger, A. K., Rischall, M. S., Butch, J., . . . Babinski, D. E. (May 2009). Longitudinal associations between emotion regulation and depression in preadolescent girls: Moderation by the

caregiving environment. *Developmental Psychology*, 45(3), 798-808. doi:
10.1037/a0014617

Finnegan, R. A., Hodges, E. V. E., & Perry, D. G. (1998). Victimization by peers:
Associations with children's reports of mother-child interaction. *Journal of
Personality and Social Psychology*, 75(4), 1076-1086. doi: 10.2307/1131226

Fitzpatrick, S., & Bussey, K. (2011). The development of the social bullying
involvement scales. *Aggressive Behavior*, 37(2), 177-192. doi:
10.1002/ab.20379

Forns, M., Abad, J., & Kirchner, T. (2012). Internalizing and externalizing
problems. In R. R. Levesque (Ed.), *Encyclopedia of adolescence* (pp. 1464-
1469) Springer US. doi: http://dx.doi.org/10.1007/978-1-4419-1695-2_261

Frank, G., Plunkett, S. W., & Otten, M. P. (2010). Perceived parenting, self-
esteem, and general self-efficacy of iranian american adolescents. *Journal of
Child and Family Studies*, 19(6), 738-746. doi: 10.1007/s10826-010-9363-x

Garber, J., & Weersing, V. R. (2010). Comorbidity of anxiety and depression in
youth: Implications for treatment and prevention. *Clinical Psychology:
Science and Practice*, 17(4), 293-306. doi: 10.1111/j.1468-
2850.2010.01221.x

- Gini, G. (2008). Associations between bullying behaviour, psychosomatic complaints, emotional and behavioural problems. *Journal of Paediatrics and Child Health*, 44(9), 492-497. doi: 10.1542/peds.2008-1215
- Gladstone, G. L., Parker, G. B., & Malhi, G. S. (2006). Do bullied children become anxious and depressed adults?: A cross-sectional investigation of the correlates of bullying and anxious depression. *Journal of Nervous and Mental Disease*, 194(3), 201-208. doi: 10.1097/01.nmd.0000202491.99719.c3
- Goodenow, C. (1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools*, 30(1), 79-90. doi: 10.1002/1520-6807(199301)30:1<79::AID-PITS2310300113>3.0.CO;2-X
- Goodman, G., Stroh, M., & Valdez, A. (2012). Do attachment representations predict depression and anxiety in psychiatrically hospitalized prepubertal children? *Bulletin of the Menninger Clinic*, 76(3), 260-289. doi: 10.1521/bumc.2012.76.3.260
- Grills, A. E., & Ollendick, T. H. (2002). Peer victimization, global self-worth, and anxiety in middle school children. *Journal of Clinical Child and Adolescent Psychology*, 31(1), 59-68. doi: 10.1207/S15374424JCCP3101_08
- Grolnick, W. S. (2003). *The psychology of parental control: How well-meant parenting backfires*. Mahwah, NJ: Lawrence Erlbaum Associates.

- Grolnick, W. S. (2009). The role of parents in facilitating autonomous self-regulation for education. *Theory and Research in Education*, 7(2), 164-173. doi: 10.1177/1477878509104321
- Grolnick, W. S., & Ryan, R. M. (Jun 1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology*, 81(2), 143-154. doi: 10.1037/0022-0663.81.2.143
- Grolnick, W. S., & Pomerantz, E. M. (2009). Issues and challenges in studying parental control: Toward a new conceptualization. *Child Development Perspectives*, 3(3), 165-170. doi: 10.1111/j.1750-8606.2009.00099.x
- Grover, R. L., Ginsburg, G. S., & Ialongo, N. (2007). Psychosocial outcomes of anxious first graders: A seven-year follow-up. *Depression and Anxiety*, 24(6), 410-420. doi: 10.1002/da.20241
- Gurley, D., Cohen, P., Pine, D. S., & Brook, J. (1996). Discriminating depression and anxiety in youth: A role for diagnostic criteria. *Journal of Affective Disorders*, 39(3), 191-200. doi: 10.1016/0165-0327(96)00020-1
- Hagerty, B. M., Williams, R. A., Coyne, J. C., & Early, M. R. (1996). Sense of belonging and indicators of social and psychological functioning. *Archives of Psychiatric Nursing*, 10(4), 235-244. doi: 10.1016/S0883-9417(96)80029-X

- Hampel, P., Manhal, S., & Hayer, T. (2009). Direct and relational bullying among children and adolescents: Coping and psychological adjustment. *School Psychology International, 30*(5), 474-490. doi: 10.1177/0143034309107066
- Hanneman, R. A., Kposowa, A. J., & Riddle, M. D. (2012). *Research methods for the social sciences : Basic statistics for social research*. Somerset, NJ: Wiley.
- Harrington, R., Fudge, H., Rutter, M., Pickles, A., & Hill, J. (1990). Adult outcomes of childhood and adolescent depression: I. psychiatric status. *Archives of General Psychiatry, 47*(5), 465-473. doi: 10.1001/archpsyc.1990.01810170065010
- Harris, J. R. (1995). Where is the child's environment? A group socialization theory of development. *Psychological Review, 102*(3), 458-489. doi: 10.2307/1130653
- Hauser, S. T., Powers, S. I., & Noam, G. G. (1991). *Adolescents and their families: Paths of ego development*. New York, NY: Free Press.
- Hawker, D. S. J., & Boulton, M. J. (2000). Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry, 41*(4), 441-455. doi: 10.1111/1469-7610.00629
- Herman, M. R., Dornbusch, S. M., Herron, M. C., & Herting, J. R. (1997). The influence of family regulation, connection, and psychological autonomy on

six measures of adolescent functioning. *Journal of Adolescent Research*, 12(1), 34-67. doi: 10.1177/0743554897121004

Hill, J. P., & Lynch, M. E. (1983). The intensification of gender-related role expectations during early adolescence. In J. Brooks-Gunn & A. Petersen (Eds.), *Girls at puberty: Biological and psychosocial perspectives* (pp. 201–228). New York: Plenum.

Hirschfield, R. M. A. (2001). The comorbidity of major depression and anxiety disorders: Recognition and management in primary care. *Journal of Clinical Psychiatry*, 3, 244-254.

Isolan, L., Salum, G. A., Osowski, A. T., Zottis, G. H., & Manfro, G. G. (2013). Victims and bully-victims but not bullies are groups associated with anxiety symptomatology among brazilian children and adolescents. *European Child & Adolescent Psychiatry*, doi: 10.1007/s00787-013-0412-z

Jacobson, K. C., & Rowe, D. C. (1999). Genetic and environmental influences on the relationships between family connectedness, school connectedness, and adolescent depressed mood: Sex differences. *Developmental Psychology*, 35(4), 926-939. doi: 10.1037/0021-843X

Jenkins, S. R., Goodness, K., & Buhrmester, D. (2002). Gender differences in early adolescents' relationship qualities, self-efficacy, and depression symptoms. *The Journal of Early Adolescence*, 22(3), 277-309. doi: 10.1177/02731602022003003

- Kessler, R. C., & Walters, E. E. (1998). Epidemiology of DSM-III-R major depression and minor depression among adolescents and young adults in the national comorbidity survey. *Depression & Anxiety (1091-4269)*, 7(1), 3-14. doi: 10.1002/(SICI)1520-6394
- Klomek, A. B., Sourander, A., Kumpulainen, K., Piha, J., Tamminen, T., Moilanen, I., . . . Gould, M. S. (2008). Childhood bullying as a risk for later depression and suicidal ideation among Finnish males. *Journal of Affective Disorders, 109*(1-2), 47-55. doi: 10.1016/j.jad.2007.12.226
- Knappe, S., Lieb, R., Beesdo, K., Fehm, L., Low, N. C. P., Gloster, A. T., & Wittchen, H. (2009). The role of parental psychopathology and family environment for social phobia in the first three decades of life. *Depression and Anxiety, 26*(4), 363-370. doi: 10.1002/da.20527
- Kumpulainen, K., Rasanen, E., & Henttonen, I. (1999). Children involved in bullying: Psychological disturbance and the persistence of the involvement. *Child Abuse & Neglect, 23*(12), 1253-1262. doi: 10.1016/S0145-2134(99)00098-8
- Kumpulainen, K., Rasanen, E., & Puura, K. (2001). Psychiatric disorders and the use of mental health services among children involved in bullying. *Aggressive Behavior, 27*(2), 102-110. doi: 10.1002/ab.3

- Kuperminc, G. P., Blatt, S. J., & Leadbeater, B. J. (1997). Relatedness, self-definition, and early adolescent adjustment. *Cognitive Therapy and Research*, 21(3), 301-320. doi: 10.1023/A:1021826500037
- La Greca, A., & Lopez, N. (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal of Abnormal Child Psychology*, 26(2), 83-94. doi: 10.1023/A:1022684520514
- Laird, R. D. (2011). Correlates and antecedents of parental psychological control in early adolescence. *Parenting: Science and Practice*, 11(1), 72-86. doi: 10.1080/15295192.2011.539510
- Lansford, J. E., Skinner, A. T., Sorbring, E., Giunta, L. D., DeaterDeckard, K., Dodge, K. A., . . . Chang, L. (2012). Boys' and girls' relational and physical aggression in nine countries. *Aggressive Behavior*, 38(4), 298-308. doi: 10.1002/ab.21433
- Leadbeater, B. J., Boone, E. M., Sangster, N. A., & Mathieson, L. C. (2006). Sex differences in the personal costs and benefits of relational and physical aggression in high school. *Aggressive Behavior*, 32(4), 409-419. doi: 10.1002/ab.20139
- Leadbeater, B. J., Thompson, K., & Gruppuso, V. (2012). Co-occurring trajectories of symptoms of anxiety, depression, and oppositional defiance from adolescence to young adulthood. *Journal of Clinical Child and Adolescent Psychology*, 41(6), 719-730. doi: 10.1080/15374416.2012.694608

- Leary, M. R. (1990). Responses to social exclusion: Social anxiety, jealousy, loneliness, depression, and low self-esteem. *Journal of Social and Clinical Psychology, 9*(2), 221-229. doi: 10.1521/jscp.1990.9.2.221
- Leary, M. R. (2005). Sociometer theory and the pursuit of relational value: Getting to the root of self-esteem. *European Review of Social Psychology, 16*, 75-111. doi: 10.1080/10463280540000007
- Lengua, L. J. (2006). Growth in temperament and parenting as predictors of adjustment during children's transition to adolescence. *Developmental Psychology, 42*(5), 819-832. doi: 10.1037/0012-1649.42.5.819
- Leondari, A., & Kiosseoglou, G. (2002). Parental, psychological control and attachment in late adolescents and young adults. *Psychological Reports, 90*(3), 1015-1030. doi: 10.2466/pr0.2002.90.3.1015
- Lewinsohn, P. M., Gotlib, I. H., Lewinsohn, M., Seeley, J. R., & Allen, N. B. (1998). Gender differences in anxiety disorders and anxiety symptoms in adolescents. *Journal of Abnormal Psychology, 107*(1), 109-117. doi: 10.1037/0021-843X.107.1.109
- Ma, T., & Bellmore, A. (2012). Peer victimization and parental psychological control in adolescence. *Journal of Abnormal Child Psychology, 40*(3), 413-424. doi: 10.1007/s10802-011-9576-

- Marbell, K. N., & Grolnick, W. S. (2013). Correlates of parental control and autonomy support in an interdependent culture: A look at Ghana. *Motivation and Emotion, 37*(1), 79-92. doi: 10.1007/s11031-012-9289-2
- Mazefsky, C. A., & Farrell, A. D. (2005). The role of witnessing violence, peer provocation, family support, and parenting practices in the aggressive behavior of rural adolescents. *Journal of Child and Family Studies, 14*(1), 71-85. doi: 10.1007/s10826-005-1115-y
- McLeod, B. D., Weisz, J. R., & Wood, J. J. (2007). Examining the association between parenting and childhood depression: A meta-analysis. *Clinical Psychology Review, 27*(8), 986-1003. doi: 10.1016/j.cpr.2007.03.001
- McLeod, B. D., Wood, J. J., & Weisz, J. R. (2007). Examining the association between parenting and childhood anxiety: A meta-analysis. *Clinical Psychology Review, 27*(2), 155-172. doi: 10.1016/j.cpr.2006.09.002
- Meland, E., Rydning, J. H., Lobben, S., Breidablik, H., & Ekeland, T. (2010). Emotional, self-conceptual, and relational characteristics of bullies and the bullied. *Scandinavian Journal of Public Health, 38*(4), 359-367. doi: 10.1177/1403494810364563
- Muris, P., Meesters, C., van Melick, M., & Zwambag, L. (2001). Self-reported attachment style, attachment quality, and symptoms of anxiety and depression in young adolescents. *Personality and Individual Differences, 30*(5), 809-818. doi: 10.1016/S0191-8869(00)00074-X

- Nanda, M. M., Kotchick, B. A., & Grover, R. L. (2012). Parental psychological control and childhood anxiety: The mediating role of perceived lack of control. *Journal of Child and Family Studies, 21*(4), 637-645. doi: 10.1007/s10826-011-9516-6
- Nansel, T. R., Craig, W., Overpeck, M. D., Saluja, G., & Ruan J. (2004). Cross-national consistency in the relationship between bullying behaviors and psychosocial adjustment. *Archives of Pediatrics & Adolescent Medicine, 158*(8), 730-736. doi: 10.1001/archpedi.158.8.730
- Nolen-Hoeksema, S., & Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin, 115*(3), 424-443. doi: 10.1097/00004583-200202000-00013
- Olson, J., & Goddard, H. W. (2010). An ecological risk/protective factor approach to understanding depressive symptoms in adolescents. *Journal of Extension, 48*(3). Retrieved from <http://www.joe.org/joe/2010june/rb6.php>
- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Cambridge, MA: Blackwell Publishers.
- Olweus, D. (1997). Bully/victim problems in school: Knowledge base and an effective intervention program. *The Irish Journal of Psychology, 18*(2), 170-190. doi: 10.1080/03033910.1997.10558138

- Perry, D., Hodges, E., Egan, S. (2001). Determinants of chronic victimization by peers: A review and new model of family influence. In: J. Juvonen & S. Graham (Eds.) *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 73–104). New York, NY: The Guilford Press.
- Pettit, G. S., Laird, R. D., Dodge, K. A., Bates, J. E., & Criss, M. M. (2001). Antecedents and behavior-problem outcomes of parental monitoring and psychological control in early adolescence. *Child Development, 72*(2), 583-598. Retrieved from <http://www.jstor.org/stable/1132415>
- Prinstein, M. J., Boergers, J., & Vernberg, E. M. (2001). Overt and relational aggression in adolescents: Social-psychological adjustment of aggressors and victims. *Journal of Clinical Child Psychology, 30*(4), 479-491. doi: 10.1207/S15374424JCCP3004_05
- Reijntjes, A., Kamphuis, J. H., Prinzie, P., & Telch, M. J. (2010). Peer victimization and internalizing problems in children: A meta-analysis of longitudinal studies. *Child Abuse & Neglect, 34*(4), 244-252. doi: 10.1016/j.chiabu.2009.07.009
- Reynolds, C. R., & Kamphaus, R. W. (2004). *Behavior assessment system for children, second edition manual*. Circle Pines, MN: American Guidance Service.

- Rigby, K. (1999). Peer victimisation at school and the health of secondary school students. *British Journal of Educational Psychology*, *69*(1), 95-104. doi: 10.1348/000709999157590
- Rogers, K. N., Buchanan, C. M., & Winchel, M. E. (2003). Psychological control during early adolescence: Links to adjustment in differing Parent/Adolescent dyads. *The Journal of Early Adolescence*, *23*(4), 349-383. doi: 10.1177/0272431603258344
- Romano, E., Tremblay, R. E., Vitaro, F., Zoccolillo, M., & Pagani, L. (2001). Prevalence of psychiatric diagnoses and the role of perceived impairment: Findings from an adolescent community sample. *Journal of Child Psychology and Psychiatry*, *42*(4), 451-461. doi: 10.1111/1469-7610.00739
- Rose, A. J., & Asher, S. R. (1999). Children's goals and strategies in response to conflicts within a friendship. *Developmental Psychology*, *35*(1), 69-79. doi: 10.1037/0012-1649.25.2.306
- Rose, A. J., & Asher, S. R. (2004). Children's strategies and goals in response to help-giving and help-seeking tasks within a friendship. *Child Development*, *75*(3), 749-763. doi: 10.1111/j.1467-8624.2004.00704.x
- Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin*, *132*(1), 98-131. doi: 10.1037/0033-2909.132.1.98

- Rudolph, K. D. (2002). Gender differences in emotional responses to interpersonal stress during adolescence. *Journal of Adolescent Health, 30*(4, Suppl), 3-13. doi: 10.1016/S1054-139X(01)00383-4
- Rudolph, K. D., Caldwell, M. S., & Conley, C. S. (2005). Need for approval and children's well-being. *Child Development, 76*(2), 309-323. doi: 10.1111/j.1467-8624.2005.00847.x
- Rudolph, K. D., & Conley, C. S. (2005). The socioemotional costs and benefits of social-evaluative concerns: Do girls care too much? *Journal of Personality, 73*(1), 115-137. doi: 10.1111/j.1467-6494.2004.00306.x
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78. doi: 10.1037/0003-066X.55.1.68
- Salmivalli, C., & Kaukiainen, A. (2004). "Female aggression" revisited: Variable- and person-centered approaches to studying gender differences in different types of aggression. *Aggressive Behavior, 30*(2), 158-163. doi: 10.1002/ab.20012
- Schaefer, E. S. (1965). A configurational analysis of children's reports of parent behavior. *Journal of Consulting Psychology, 29*(6), 552-557. doi: 10.1037/h0022702

- Schwarz, J. C., Barton-Henry, M., & Pruzinsky, T. (1985). Assessing child-rearing behaviors: A comparison of ratings made by mother, father, child, and sibling on the CRPBI. *Child Development, 56*(2), 462. doi: 10.1111/1467-8624.ep7251656
- Seegan, P. L., Welsh, K. L., Plunkett, S. W., Merten, M. J., & Sands, T. (2012). Neighborhood, parenting, and individual qualities related to adolescent self-efficacy in immigrant families. *Family and Consumer Sciences Research Journal, 40*(4), 348-360. doi: 10.1111/j.1552-3934.2012.02116.x
- Settipani, C. A., O'Neil, K. A., Podell, J. L., Beidas, R. S., & Kendall, P. C. (2013). Youth anxiety and parent factors over time: Directionality of change among youth treated for anxiety. *Journal of Clinical Child and Adolescent Psychology, 42*(1), 9-21. doi: 10.1080/15374416.2012.719459
- Shochet, I. M., Dadds, M. R., Ham, D., & Montague, R. (2006). School connectedness is an underemphasized parameter in adolescent mental health: Results of a community prediction study. *Journal of Clinical Child and Adolescent Psychology, 35*(2), 170-179. doi: 10.1207/s15374424jccp3502_1
- Shochet, I. M., Homel, R., Cockshaw, W. D., & Montgomery, D. T. (2008). How do school connectedness and attachment to parents interrelate in predicting adolescent depressive symptoms? *Journal of Clinical Child and Adolescent Psychology, 37*(3), 676-681. doi: 10.1080/15374410802148053

- Silk, J. S., Morris, A. S., Kanaya, T., & Steinberg, L. (2003). Psychological control and autonomy granting: Opposite ends of a continuum or distinct constructs? *Journal of Research on Adolescence*, *13*(1), 113-128. doi: 10.1111/1532-7795.1301004
- Soenens, B., Luyckx, K., Vansteenkiste, M., Duriez, B., & Goossens, L. (2008). Clarifying the link between parental psychological control and adolescents' depressive symptoms: Reciprocal versus unidirectional models. *Merrill-Palmer Quarterly*, *54*(4), 411-444. Retrieved from <http://www.jstor.org/stable/23096266>
- Soenens, B., Vansteenkiste, M., Lens, W., Luyckx, K., Goossens, L., Beyers, W., & Ryan, R. M. (2007). Conceptualizing parental autonomy support: Adolescent perceptions of promotion of independence versus promotion of volitional functioning. *Developmental Psychology*, *43*(3), 633-646. doi: 10.1037/0012-1649.43.3.633
- Soenens, B., Vansteenkiste, M., Luyten, P., Duriez, B., & Goossens, L. (2005). Maladaptive perfectionistic self-representations: The mediational link between psychological control and adjustment. *Personality and Individual Differences*, *38*(2), 487-498. doi: 10.1016/j.paid.2004.05.008
- Spriggs, A. L., Iannotti, R. J., Nansel, T. R., & Haynie, D. L. (2007). Adolescent bullying involvement and perceived family, peer and school relations:

Commonalities and differences across race/ethnicity. *Journal of Adolescent Health, 41*(3), 283-293. doi: 10.1016/j.jadohealth.2007.04.009

Steinberg, L. (1990). Autonomy, conflict, and harmony in the family relationship. In S. S. Feldman, & G. R. Elliot (Eds.), *At the threshold: The developing adolescent* (pp. 255-276). Cambridge, MA: Harvard University Press.

Storch, E. A., Crisp, H., Roberti, J. W., Bagner, D. M., & Masia-Warner, C. (2005). Psychometric evaluation of the social experience questionnaire in adolescents: Descriptive data, reliability, and factorial validity. *Child Psychiatry and Human Development, 36*(2), 167-176. doi: 10.1007/s10578-005-3495-z

van Belle, G. (2002). *Statistical rules of thumb*. New York, NY: John Wiley & Sons.

van Oort, F. V. A., GreavesLord, K., Ormel, J., Verhulst, F. C., & Huizink, A. C. (2011). Risk indicators of anxiety throughout adolescence: The TRAILS study. *Depression and Anxiety, 28*(6), 485-494. doi: 10.1002/da.20818

World Health Organization. (2008). *The global burden of disease: 2004 update*.

Retrieved from

http://www.who.int/healthinfo/global_burden_disease/2004_report_update/en/index.html

Yeung Thompson, R. S., & Leadbeater, B. J. (2012). Peer victimization and internalizing symptoms from adolescence into young adulthood: Building strength through emotional support. *Journal of Research on Adolescence*, 23(2), 1532-7795. doi: 10.1111/j.1532-7795.2012.00827.x

Appendix A: Social Experience Questionnaire (SEQ)

THINGS THAT HAPPEN TO ME

Directions: Here is a list of things that sometimes happen to kids your age at school. How often do they happen to you at school? Complete each question by circling one of the answers below.

EXAMPLE:

A. How often do you eat lunch at school?

Never time	Almost Never	Sometimes	Almost all the time	All the time
---------------	--------------	-----------	---------------------	-----------------

B. How often does your class go outside to play?

Never time	Almost Never	Sometimes	Almost all the time	All the time
---------------	--------------	-----------	---------------------	-----------------

1. How often does another kid give you help when you need it?

Never time	Almost Never	Sometimes	Almost all the time	All the time
---------------	--------------	-----------	---------------------	-----------------

2. How often do you get hit by another kid at school?

Never time	Almost Never	Sometimes	Almost all the time	All the time
---------------	--------------	-----------	---------------------	-----------------

3. How often do other kids leave you out on purpose when it is time to play or do an activity?

Never time	Almost Never	Sometimes	Almost all the time	All the time
---------------	--------------	-----------	---------------------	-----------------

4. How often does another kid yell at you and call you mean names?

Never time	Almost Never	Sometimes	Almost all the time	All the time
---------------	--------------	-----------	---------------------	-----------------

5. How often does another kid try to cheer you up when you feel sad or upset?

Never time	Almost Never	Sometimes	Almost all the time	All the time
---------------	--------------	-----------	---------------------	-----------------

6. How often does a kid who is mad at you try to get back at you by not letting you be in their group anymore?

Never time	Almost Never	Sometimes	Almost all the time	All the
---------------	--------------	-----------	---------------------	---------

7. How often do you get pushed or shoved by another kid at school?

Never time	Almost Never	Sometimes	Almost all the time	All the
---------------	--------------	-----------	---------------------	---------

8. How often does another kid do something that makes you feel happy?

Never time	Almost Never	Sometimes	Almost all the time	All the
---------------	--------------	-----------	---------------------	---------

9. How often does a classmate tell lies about you to make other kids not like you anymore?

Never time	Almost Never	Sometimes	Almost all the time	All the
---------------	--------------	-----------	---------------------	---------

10. How often does another kid kick you or pull your hair?

Never time	Almost Never	Sometimes	Almost all the time	All the
---------------	--------------	-----------	---------------------	---------

11. How often does another kid say they won't like you unless you do what they want you to do?

Never time	Almost Never	Sometimes	Almost all the time	All the
---------------	--------------	-----------	---------------------	---------

12. How often does another kid say something nice to you?

Never time	Almost Never	Sometimes	Almost all the time	All the
---------------	--------------	-----------	---------------------	---------

13. How often does a kid try to keep others from liking you by saying mean things about you?

Never time	Almost Never	Sometimes	Almost all the time	All the
---------------	--------------	-----------	---------------------	---------

14. How often does another kid say they will beat you up if you don't do what they want you to do?

Never time	Almost Never	Sometimes	Almost all the time	All the
---------------	--------------	-----------	---------------------	---------

15. How often do other kids let you know that they care about you?

Never
time

Almost Never

Sometimes

Almost all the time

All the

Appendix B: Psychological Control Scale – Youth Self-Report (PCS-YSR)

For each statement, circle the response that is most like your parent. Please fill in the blank with the name of the parent you are referring to (e.g., mom, dad, guardian).

My _____ is a person who ...

1. Changes the subject, whenever I have something to say.

Not like her (him) (him)	Somewhat like her (him)	A lot like her
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2. Finishes my sentences whenever I talk.

Not like her (him) (him)	Somewhat like her (him)	A lot like her
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3. Often interrupts me.

Not like her (him) (him)	Somewhat like her (him)	A lot like her
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4. Acts like she (he) knows what I'm thinking or feeling.

Not like her (him) (him)	Somewhat like her (him)	A lot like her
-----------------------------	-------------------------	----------------

5. Would like to be able to tell me how to feel or think about things all the time.

Not like her (him) (him)	Somewhat like her (him)	A lot like her
-----------------------------	-------------------------	----------------

6. Is always trying to change how I feel or think about things.

Not like her (him) (him)	Somewhat like her (him)	A lot like her
-----------------------------	-------------------------	----------------

7. Blames me for other family members' problems.

Not like her (him) (him)	Somewhat like her (him)	A lot like her
-----------------------------	-------------------------	----------------

8. Brings up my past mistakes when she (he) criticizes me.

Not like her (him)

Somewhat like her (him)

A lot like her

(him)