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Parametric Indices of Peer Victimization as Predictors of Children's Internalizing Outcomes

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Parametric Indices of Peer Victimization as Predictors of Children's Internalizing Outcomes

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Abstract

Peer victimization has been linked to maladjustment in school-age children. However, the field is less clear about how different parameters of peer victimization (e.g., frequency, stability) confer risk to children. In this study, I evaluated the extent to which key parameters (operationalized as distinct peer victimization indices) predicted internalizing maladjustment in 4th grade children (N = 445). From self-, teacher-, and peer-reported victimization data gathered at three time points within an academic year, I generated the following indices: *Mean Level*, *Stability*, *Cross-Informant Agreement*, and *Informant Source*. Controlling for baseline internalizing scores, hierarchical multiple regressions indicated that: a) only self-reported *Mean Level* and *Stability*, and *Cross-Informant Agreement* at Time 3 (T3) predicted internalizing outcomes; b) teacher- and peer-reported victimization did not predict internalizing adjustment; c) victimization self-reports at T3 were the best predictors of internalizing maladjustment; d) predictive utility of the indices was modest at best; and e) internalizing functioning at T1 accounted for most of the variance explained by the models. Post-hoc analyses found: a) gender moderated the relation between victimization self-reports and internalizing outcomes; and b) race/ethnicity moderated the relation between peer-reports and internalizing outcomes. Results were discussed through the lens of conceptual frameworks (e.g., information processing models, social ecological models) hypothesized to play a role in the development of internalizing maladjustment as a direct or indirect consequence of peer victimization. Limitations, implications for research and practice, and future directions were discussed.

Keywords: peer victimization, parameters, internalizing maladjustment, school bullying, multi-informant assessment, predictive utility

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Dedication

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Table of Contents

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Introduction

Peer victimization and school bullying are public health concerns consistently linked to significant maladjustment in school-age children, both concurrently and over time (Card & Hodges, 2008; Cornell, Gregory, Huang, & Fan, 2013; Gini & Pozzoli, 2013; McDougall & Vaillancourt, 2015; van Geel, Vedder, & Tanilon, 2014). Consequently, scholars have developed universal anti-bullying programs to reduce the schoolwide incidence and impact of bullying. A limited number of scholars have also begun developing targeted interventions to help individual youth experiencing more severe involvement with victimization and greater risk for negative outcomes. However, the scarcity of research on selective interventions for individual children could reflect limited understanding of the mechanisms that link peer victimization to negative outcomes.

Though some scholars have proposed conceptual frameworks that might explain the link between peer victimization and internalizing maladjustment, there is a dearth of research addressing the aspects of victimization most predictive of maladjustment. Limited research examining the predictive utility of distinct parameters of victimization leaves unanswered the question of how peer victimization confers internalizing risk to school-age children. In this study, I evaluated the extent to which various peer victimization parameters (e.g., stability, informant source) predicted children's internalizing functioning at the end of their academic year. I examined these parameters through the lens of conceptual frameworks that could explain the predictive link between peer victimization and internalizing maladjustment. The present study aimed to increase the field's understanding of the relation between distinct peer victimization parameters and children's internalizing maladjustment.

Peer Victimization

Definition. *Peer victimization* has been defined as a) repeated exposure to negative peer interactions that b) convey harmful intent, c) produce harmful effects, and d) are sanctioned (implicitly or explicitly) by peers (Elledge, Cavell, Ogle, Newgent, Malcolm, & Faith, 2010). Children can experience peer victimization in a variety of ways, such as through physical (e.g., hitting, kicking, pushing), verbal (e.g., teasing, calling mean names), and relational aggression (e.g., excluding from activities, telling lies; Bradshaw, Waasdorp, & O'Brennan, 2013; Solberg & Olweus, 2003), and more recently, cyberbullying victimization (Holfeld & Mishna, 2018). A related—and oft used interchangeably—construct is *bullying*, traditionally defined as "aggressive behavior or intentional 'harm doing,' which is carried out repeatedly and over time in an interpersonal relationship characterized by an imbalance of power" (Olweus, 1993, p. 8). Though scholars have used different definitions—beginning with the term "mobbing" almost five decades ago (Heinemann, 1972; Olweus, 1973)—bullying has often been cast as a more specific form of peer aggression. To better capture theoretical models of bullying and improve fit within the broader aggression and victimization literatures, Volk, Dane, and Marini (2014) recently proposed a modified definition of bullying as "aggressive, goal-directed behavior that harms another individual within the context of a power imbalance" (p. 2).

Though scholars have proposed different conceptualizations of bullying and victimization, extant literature does not provide clear definitional consensus for these constructs (Arora, 1996; Volk, Veenstra, & Espelage, 2017; Ybarra, Espelage, & Mitchell, 2014). Further obscuring definitional clarity, research suggests that distinct informant sources differ on their perceptions and use of these terms. For example, relevant here is a study finding that youth define bullying experiences differently depending on their role within the peer ecology.

Specifically, Cuadrado-Gordillo (2011) found that while victims did not consider *power imbalance* when describing instances of bullying, witnesses and bystanders were more likely to report *intent to harm* as a defining characteristic of bullying, and perpetrators of aggression tended to emphasize the *power imbalance* factor when defining bullying.

Limited consensus in the operationalization and measurement of bullying and victimization (Buhs, McGinley, & Toland, 2010; Casper, Meter, & Card, 2015; Ryan & Smith, 2009) has led to the conflation of these terms across studies. As such, researchers have begun calling for increased definitional, conceptual, and operational consensus for bullying and victimization, and providing recommendations for parsing out these constructs (Jia & Mikami, 2018). Rønning and colleagues (2009) noted "it seems obvious that a prerequisite to combat bullying is a shared understanding of the phenomenon between children, teachers and parents, including its definition and what to do when it is experienced or observed" (p. 21). Nevertheless, regardless of definitions used, school bullying and peer victimization are consistently linked to increased risk for maladjustment.

In the present study, I focused primarily on the concept of *peer victimization*, rather than *bullying*. This decision was informed by both practical and conceptual considerations. Though bullying is often cast as a distinct form of peer aggression—studies evaluating bullying have differed in their use of definitional versus behavioral methodologies, often have not measured specific components of the proposed definition (e.g., imbalance of power), and have lacked clarity in distinguishing bullying from peer aggression and victimization (Jia & Mikami, 2018). In rendering the literature for the current study, however, I reviewed both peer victimization and bullying research to discuss—broadly—*the experience of negative, repeated interactions of peer aggression that produce harmful consequences for school-age youth.*

Prevalence. Peer victimization is a significant public health concern, given the relatively high prevalence rates found in school-age youth and the health and mental health risks associated with it (Dale, Russell, & Wolke, 2014; Graham, 2016; Hager & Leadbeater, 2016; Rudolph, Troop-Gordon, Hessel, & Schmidt, 2011). Given a range of methods to assess victimization (e.g., difference in operationalization of the construct, risk thresholds used, informant sources assessed) and a lack of definitional clarity (Arora, 1996; deLara, 2012), the field finds a wide range of rates, adjustment trajectories, and outcomes across bullying and victimization studies. For example, researchers have reported victimization rates between 2% to 76.8% of their respective samples (Baldry & Farrington, 1999; Boulton & Underwood, 1992; Craig & Harel, 2004; Craig, Pepler, Murphy, & McCuaig-Edge, 2010; Devoe, Kaffenberger, & Chandler, 2005; Finkelhor, Turner, Ormrod, & Hamby, 2009; Goldbaum, Craig, Pepler, & Connolly, 2003; Hoover, Oliver, & Hazler, 1992; Juvonen, Graham, & Schuster, 2003; Lohre, Lydersen, Paulsen, Maehle, & Vatten, 2011; Pellegrini, Bartini, & Brooks, 1999; Rigby, 2000; Rigby & Barnes, 2002; Schwartz, Dodge, Pettit, & Bates, 1997; Smith & Shu, 2000; Stockdale, Hangaduambo, Duys, Larson, & Sarvela, 2002; Swearer, Espelage, Vaillancourt, & Hymel, 2010).

Prevalence estimates of peer victimization from a number of national and international surveys are typically lower, often falling in the range of 8-22% of youth (Currie et al., 2012; Kann, et al., 2016; Nansel et al., 2001; Olweus, 1994; Robers, Zhang, & Morgan, 2015). Studies generally reveal that boys experience greater victimization rates than girls (Cook, Williams, Guerra, Kim, & Sadek, 2010), though this relation could vary by victimization type. Specifically, studies have found that boys tend to experience more physical victimization than girls (Scheithauer, Hayer, Petermann, & Jugert, 2006). Other studies have revealed either mixed findings or no significant gender differences for verbal and relational victimization (Prinstein,

Boergers, & Vernberg, 2001). Developmentally, peer victimization appears to be most prevalent in elementary school, with middle and high school youth reporting lower rates of victimization (Olweus, 1993; Pepler et al., 2006). However, for children more vulnerable to chronic harassment, peer victimization experiences appear to peak in middle school and could persist over time (Nicolaides et al., 2002; Scheithauer et al., 2006). In summary, though prevalence estimates vary, school-age youth are at significant risk for experiencing some involvement with bullying and victimization throughout their school trajectories.

Maladjustment. An abundant number of studies have found—both retrospectively and prospectively—that children victimized by peers evidence an increased risk for concurrent and long-term maladjustment in comparison to non-victimized peers. For example, youth experiencing peer harassment are at greater risk for school problems, such as lower academic achievement and greater school disengagement, absenteeism, and school dropout (Brown, Clery, & Ferguson, 2011; Cornell et al., 2013; Espelage, Hong, Rao, & Low, 2013; Jenkins & Demaray, 2015; Juvonen, Wang, & Espinoza, 2011; Schwartz, Gorman, Nakamoto, & Toblin, 2005; Wienke Totura, Karver, & Gesten, 2014). Studies have found that peer victimization is linked to disruptions in peer relationships, evidenced by increased risk for peer rejection and social alienation (Card, Isaacs, & Hodges, 2007; Rudolph et al., 2014). Children victimized by peers also experience greater risk for sleep problems (van Geel, Goemans, & Vedder, 2016), somatic complaints (e.g., migraines, body aches), and overall poorer health trajectories compared to non-victims (Bogart et al., 2014; Fekkes, Pijpers, Fredriks, Vogels, & Verloove-Vanhorick, 2006; Gini & Pozzoli, 2013; Løhre et al., 2011; Nixon, Linkie, Coleman, & Fitch, 2011). Further, studies have examined the role that victimization plays in increasing children's risk for externalizing problems, reactive aggression, behavioral dysregulation, and bullying perpetration

(Cooley, Fite, & Pederson, 2018; Dulmus, Sowers, & Theriot, 2006; Haltigan & Vaillancourt, 2014; Liang et al., 2007; Reijntjes et al., 2011). Repeated victimization also places children at risk for more severe forms of psychopathology, such as psychotic symptoms, delusions, and hallucinations (Campbell & Morrison, 2007; Janssen et al., 2004; Kelleher et al., 2008). Overall, victims of repeated peer aggression are at greater risk for psychological distress than non-involved peers (Haltigan & Vaillancourt, 2014).

Internalizing problems. Of the documented adjustment problems associated with peer victimization, studies find a particularly robust relation between victimization and *internalizing problems*. The term *internalizing* here refers to a class of emotional and behavioral problems maintained primarily within an individual, often consisting of problems with maladaptive regulation of cognitive and emotional states (Merrell, 2013). Symptoms include disruption of affective (e.g., sadness, guilt, shame), cognitive (e.g., hopeless thoughts, excess worry), behavioral (e.g., withdrawal, attempts to overcontrol negative affect), and physiological processes (e.g., somatic symptoms, circadian rhythm changes, cortisol dysregulation), and may result in the development of psychiatric disorders (e.g., depression). Research consistently finds peer victimization detrimental to children's internalizing functioning. Specifically, studies report that youth victimized by peers evidence increased risk for a range of internalizing problems, including loneliness (Juvonen, Nishina, & Graham, 2000); negative affect, such as anger and fear (Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004); withdrawal (Bond, Carlin, Thomas, Rubin, & Patton, 2001); somatic concerns (Lien, Green, Welander-Vatn, & Bjertness, 2009); anxiety (McDougall & Vaillancourt, 2015); and depression (Averdijk, Müeller, Eisner, & Ribeaud, 2011; Sweeting, Young, West, & Der, 2006). Across different samples, ages, and geographical regions, youth impacted by peer victimization evince elevated risk for developing internalizing problems

compared to non-victims (Bouman et al., 2012; Kawabata, Tseng, & Crick; 2014; Reijntjes, Kamphuis, Prinzie, & Telch, 2010; Schwartz, Lansford, Dodge, Pettit, & Bates, 2015; Troop-Gordon & Ladd, 2005; Zwierzynska, Wolke, & Lereya, 2013).

Self-harm. In addition to experiencing elevated risk for psychopathology, child victims of peer aggression are at greater risk for self-harm than non-involved peers (Fisher, Moffitt, Houts, Belsky, Arseneault, & Caspi, 2012; Hay & Meldrum, 2010). Conservative estimates suggest that up to 15% of youth engage in self-harm behaviors (Laye-Gindhu & Schonert-Reichl, 2005), with almost 18,000 adolescents visiting U.S. hospitals each year for incidents of self-harm (e.g., cutting, burning, self-battery, poisoning; Vajani et al., 2007). Given this risk, scholars have begun focusing on the relation between peer victimization, internalizing maladjustment, and self-harm. In a sample of 426 adolescents, victimization predicted self-harm (beta range = .32-.39), even when controlling for contextual and psychosocial factors, with environmental and internal factors moderating the relation between victimization and self-harm (Hay & Meldrum, 2010). Another study (N = 2,141) found that among 12-year-old children who self-harmed (n = 62), more than half (n = 35) reported current or previous victimization experiences (Fisher, Moffitt, Houts, Belsky, Arseneault, & Caspi, 2012). For boys, prolonged victimization appears to be particularly detrimental—a study found that bullied boys had a lifetime self-harm odds ratio four times greater than non-bullied boys (McMahon, Reulbach, Perry, Keeley, & Arensman, 2010). These and other studies highlight the deleterious effect of repeated victimization on youth risk for self-harm (Heerde & Hemphill, 2018; Jutengren, Kerr, & Stattin, 2011; Wright, 2016).

Suicide. Given suicide is one of the leading causes of death in young people of both sexes (Wasserman, Cheng, & Jiang, 2005), scholars have also begun examining the link between peer victimization and suicide. Youth suicide rates in the US are particularly concerning—for

example, the CDC reported that in 2015, 524 female and 1,537 male adolescents completed suicide (Centers for Disease Control and Prevention, 2017). Alarmingly, girls' suicide rates have doubled between 2007 and 2015 (from 2.4 to 5.1 deaths per 100,000 youth), with teenage girls currently evidencing their highest suicide peak in the last 30 years. Importantly, research finds that bullying and victimization are positively associated with increased risk for suicidal ideation and behavior (Gini & Espelage, 2014; Klomek et al., 2009; Mills, Guerin, Lynch, Daly, & Fitzpatrick, 2004; Rigby & Slee, 1999; van der Wal, de Wit, & Hirasing, 2003). In a recent meta-analysis, peer victimization was positively associated with suicidal ideation in 284,375 youth and suicide attempts in a staggering 70,102 youth (Van Geel, Vedder, & Tanilon, 2014). The authors found these relations to be consistent across gender, developmental age, victim status, and victimization type.

Other studies have found that gender moderates the relation between victimization and suicidality, with victimization having a particularly detrimental effect on girls. For example, one study reported that 8% of frequently bullied girls evidenced severe suicidal ideation in comparison to only 1% of non-bullied girls, whereas 4% of bullied boys compared to 1% of non-bullied boys exhibited suicidality (Kaltiala-Heino, Rimpelä, Marttunen, Rimpelä, & Rantanen, 1999). Similarly, another study found that peer victimization—regardless of duration—increases suicidal ideation in girls; in boys, only persistent victimization predicted risk for suicidal ideation (Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007). Overall, across studies, research finds both direct and indirect paths (particularly those involving internalizing maladjustment and hopelessness) through which bullying victimization confers risk for suicidality (Barker, Arseneault, Brendgen, Fontaine, & Maughan, 2008; Barzilay et al., 2017; Geoffroy et al., 2016;

Gini & Espelage, 2014; Herba et al., 2008; Hinduja & Patchin, 2010; Kim & Leventhal, 2008; Klomek et al., 2009; Moon, Karlson, & Kim, 2015).

Longitudinal impact. Unfortunately, the impact of peer victimization is not limited to concurrent maladjustment. Research shows that for some victims, adjustment difficulties endure through—or emerge during—later adolescence and adulthood (McDougall & Vaillancourt, 2015). For example, peer victimization has been linked to risk for long-term disruption in social relationships, educational engagement, and financial stability (e.g., Takizawa, Maughan, & Arseneault, 2014; Wolke, Copeland, Angold, & Costello, 2013). Studies evaluating adolescents and adults with histories of childhood peer victimization reveal greater risk for psychiatric (e.g., depression, anxiety) and health-related problems even after victimization experiences have desisted (Biebl, DiLalla, Davis, Lynch, & Shinn, 2011; Copeland, Wolke, Angold, & Costello, 2013; Ledley et al., 2006; Lund et al., 2009; Olweus, 1993; Sourander, Jensen, Ronning, Nimela, et al., 2007; Stapinski et al., 2014; Vassallo, Edwards, Renda, & Olsson, 2014). Victims' risk for internalizing dysfunction can persist anywhere from a few months after victimization events occurred up to decades later (e.g., Bond, Carlin, Thomas, Rubin, & Patton, 2001; Ttofi, Farrington, Lösel, & Loeber, 2011). Highlighting the potential long-term impact of victimization, a recent study found that exposure to bullying during childhood (in a sample of 8-year-old Finnish youth) predicted significant depression and later use of anti-depressants between the ages of 16 and 29—even when controlling for early psychiatric comorbidity (Sourander, Gyllenberg, Klomek, Sillanmäki, Ilola, & Kumpulainen, 2016). Risk for severe psychopathology in later years, including episodes of psychosis, has also been associated with earlier peer victimization experiences (Wolke, Lereya, Fisher, Lewis, & Zammit, 2014).

The long-term risk trajectories are complex, and appear to vary by demographic and contextual factors. For example, though bullied youth are at risk for somatic concerns (e.g., headaches) up to 7 years after being bullied (Gini, Pozzoli, Lenzi, & Vieno, 2014), of adults bullied during childhood, women evidence significantly greater somatic risk than men (McGee et al., 2011). In contrast, prospective research has found that bullied boys—compared to bullied girls and non-victimized boys—experience greater risk during adolescence and adulthood for developing problems with smoking (Niemelä et al., 2011), aggression (McGee et al., 2011), and involvement in crime (Gibb, Horwood, & Fergusson, 2011). Though the number of longitudinal studies examining victims' risk trajectories is limited, such work is necessary to continue expanding the field's understanding of the long-term effect peer victimization has on youth.

Interventions for Bullying and Peer Victimization

Universal programs. Considering the public health concerns associated with school bullying and peer victimization, scholars have developed universal, school-wide interventions. These programs are generally provided to all students, with the goal of reducing bullying and victimization rates and improving overall school climate and safety (Smith, Pepler, & Rigby, 2004). Empirically evaluated programs—such as the Olweus Bullying Prevention Program (Olweus, 1993) and the KiVA Anti-bullying Program (Karna et al., 2011)—focus on reducing opportunities for victimization and increasing reinforcement for prosocial behaviors. These programs typically incorporate multi-tier components (e.g., whole-school, classroom) that tackle different levels of the school ecology. When universal anti-bullying programs are implemented with fidelity, research supports their use as preventive interventions that can reduce rates of bullying and improve overall school climate (Farrington & Ttofi, 2009; Iudici & Faccio, 2014; Olweus & Limber, 2010; Renshaw & Jimerson, 2012; Ttofi & Farrington, 2011).

However, implementing universal programs can be challenging and costly, and many schools do not implement them even with evidence to support their efficacy (Olweus & Limber, 2010). Replicating successful universal programs has been challenging (Salmivalli, Kaukiainen, & Voeten, 2005), and the effectiveness of these replications has been mixed (e.g., Price & Jones, 2001). As such, scholars have raised questions about the extent to which universal anti-bullying programs benefit individual children whose level of victimization is more chronic or severe (Nation, 2007). To the author's knowledge, only one study has evaluated whether a universal school-wide prevention program (KiVA) positively impacts the functioning of target children experiencing severe victimization (Juvonen, Schacter, Sainio, & Salmivalli, 2016). For youth in the KiVA program, Juvonen and colleagues found—in children experiencing the most elevated victimization—child-reported improvements in self-esteem and perceptions of school climate, and decreases in depressive symptoms.

Though these preliminary findings from one universal program are promising, not much is known about the global or specific benefits of universal interventions for individual children experiencing more severe, frequent, or chronic victimization (Chan, Myron, & Crawshaw, 2005; Smith, Schneider, Smith, & Ananiadou, 2004). As such, scholars have begun exploring why some victimized children might experience limited benefits from universal anti-bullying programs. For example, a recent study found that children with higher levels of peer rejection and internalizing concerns tended to persist as victims even when involved in a universal anti-bullying intervention (Kaufman, Kretschmer, Huitsing, & Veenstra, 2018). One implication is that some children's victimization experiences might be pervasive and enduring—and may need further support than that offered by a universal intervention—thus suggesting the need for more focalized attention to victims at higher risk for maladjustment.

Selective and targeted intervention. Recognizing the risks associated with greater involvement in peer victimization, scholars have begun developing and evaluating interventions that target individual children at risk for negative sequelae. Earlier studies addressing individual cases of children involved in bullying and victimization focused primarily on the perpetrator or active bystanders (e.g., Horne, Swearer, Givens, & Meints, 2010; Maines & Robinson, 1998; Pikas, 1989). Only a handful of studies have evaluated interventions that specifically target individual victims of peer aggression. Included here are intervention components embedded in universal programs (e.g., KiVA; Juvonen et al., 2016) as well as stand-alone interventions, such as the Social Skills Group Intervention (S.S. GRIN; DeRosier & Marcus, 2005) and the Method of Shared Concern (Rigby, 2005). More recently, scholars have begun evaluating the benefits of context-specific interventions, such as the Lunch Buddy mentoring program, that target high-risk high-reward social settings (e.g., cafeteria) for victims of peer aggression (Elledge et al., 2010; Gregus, Craig, Hernandez Rodriguez, Pastrana, & Cavell, 2015; Pryce et al., 2015). Preliminary findings suggest these focused programs hold promise as a way to aid children whose peer victimization experiences might increase their risk for maladjustment.

Recent efforts to address more severe involvement with peer victimization have also included the adaptation of existing evidence-based treatments for other childhood problems. For example, Taking ACTION (Stark & Kendall, 1996)—a group-based cognitive behavioral intervention for children experiencing problems with depression and anxiety—was recently piloted as a treatment for victimized youth (Fite, Cooley, Poquiz, & Williford, 2019). The authors reported choosing this program for—in addition to modules on coping and problem-solving—its focus on children's cognitions. Including cognitive restructuring was appealing, given the authors' conceptualization that cognitions (and distortions thereof) could exacerbate

victim's dysfunction and play a role in maintaining their victimization. The pilot study found the 24-session intervention promising in helping reduce self-reported relational victimization and internalizing symptoms in a sample of victimized elementary school children (n = 12).

Even with promising early intervention work, the field is nascent—significantly more work needs to focus on developing and evaluating interventions targeting individual children at-risk for negative sequela. The small number of programs that target persistent and harmful victimization could perhaps reflect a lack of clarity on which aspects of victimization are most predictive of psychosocial risk. Implicit here is that interventions for individual victims presumably would target aspects of victimization that predict the greatest maladjustment. To date, much research has focused on investigating correlates and consequences of school bullying and victimization. Less is known about the aspects of victimization that confer risk to children—or which aspects are most predictive of dysfunction.

Limitations in Examining Peer Victimization Parameters

Despite studies examining the correlates and consequences of peer victimization, research is limited in addressing fundamental questions about how distinct peer victimization *parameters* are linked to negative outcomes. Different peer victimization parameters—otherwise described in the literature as aspects, features, or dimensions—could vary in how they predict risk for youth maladjustment. For example, are estimates of the *duration* of peer victimization experiences better predictors of children's outcomes than estimates of *frequency*? Are reports from *peers* or *teachers* more predictive of negative outcomes than *reports from children* themselves? Is *agreement across informants* an important parameter to assess? Though frequency, duration, and informant are peer victimization parameters that might predict children's risk differently, these—and other parameters—have seldom been compared in relation

to each other when examining children's maladjustment. As such, the field knows little about the extent to which parameters are more predictive of psychosocial risk, or whether distinct parameters predict different psychosocial outcomes (Craig & Pepler, 2003). Such questions are critical for understanding the mechanisms through which peer victimization confers risk to children—and subsequently aid the development of effective interventions (Coie et al., 1993) that could target these parameters.

Currently, the field faces a number of limitations in examining peer victimization parameters. One such barrier is limited consensus about how to conceptualize or measure these parameters. For example, studies have seldom distinguished between the constructs of *frequency* and *duration*—often using them interchangeably—in defining more problematic involvement with peer victimization (Rueger et al., 2011). To highlight this issue: some scholars have described chronic victimization as long-term involvement as a victim, but then operationalized it as frequent victimization within a brief time span. Further, studies have reported assessing chronicity, but assessing victimization at only one time point, or only with retrospective reports (without prior baseline assessment); thus, measuring a different construct other than chronicity or duration. Therefore, there appears to be a disconnect between parameters of bullying/victimization as they are *conceptualized* versus how they are *operationalized*.

With limited clarity regarding the role of victimization parameters in conferring risk and limited consensus for how these should be examined, scholars lack guidance in differentiating parametric constructs. For example, studies have conflated the constructs of frequency and stability. However, recent work suggests that frequent and stable victimization may potentially be two distinct constructs. Highlighting this potential distinction between the two constructs, Bettencourt, Farrell, Liu, and Sullivan (2012) found that in their sample of middle school

children, predominantly victimized youth comprised the least stable group out of four latent classes. Similarly, Ryoo, Wang, and Swearer (2014) reported that in their sample, frequent victims and bullying perpetrators evinced the lowest stability over time, with both of these groups endorsing significant status changes across school years. These studies suggest that *frequency* and *stability* are likely not the same parameters. In other words, children who are frequently victimized within a specified time span may not necessarily be the same youth who evidence long-term involvement with problematic victimization (Pastrana et al., 2018). In contrast, other scholars have suggested that victimization can be moderately stable over time, though its stability could vary by a number of factors, such as setting (Strohmeier, Wagner, Spiel, & von Eye, 2010). Mixed and inconsistent findings suggest the field still lacks precision in operationalizing and conceptualizing victimization parameters.

Another limitation that follows from lack of consensus in operationalizing these parameters is that it may be difficult to compare parameter-specific findings across studies. Specifically, the same term (e.g., chronic victimization) may have a different meaning across studies. Thus, when scholars look to the literature to review how different aspects of victimization impact youth, it may be difficult to glean which of these parameters are most predictive of risk. Consequently, scholars may continue using broad-based "umbrella terms" when discussing problematic victimization, which—as described by Manly and colleagues' (1994) study—conflicts with the finding that examining distinct aspects of adverse childhood phenomena (e.g., trauma, maltreatment) may provide better predictive utility for maladjustment than using a broad early life stress category.

To exemplify why blanket terms may be problematic in the victimization field, research has found that what constitutes problematic involvement with peer victimization could vary by a

host of factors (e.g., frequency, duration, aggression type, available social resources in the peer group, age). However, studies that have used parameters interchangeably, may conclude that children with greater involvement as victims in one parameter may also be the same children involved as victims in the other (e.g., concluding that kids who report greater frequency of victimization may be the same youth whose victimization persists over time). Such a conclusion may be problematic for intervention research, considering the costs of identification and intervention. The supposition here—especially with limited clarity in how parameters are defined, operationalized, and measured across studies—is that the risk for maladjustment (and maintenance thereof) stems from the same victimization etiology. Unfortunately, given extant work in victimization risk trajectories, it is wholly possible that victimization confers differential risk trajectories, which could further vary from a number of other factors (e.g., intrapersonal, contextual).

Summary. Described in this section are but a handful of limitations the field faces when evaluating peer victimization parameters and children's risk for internalizing maladjustment. Research that focuses on parsing out parameters is important to establishing guidelines for what constitutes problematic levels of peer victimization, which may help inform both assessment and intervention efforts. As such, scholars have increasingly begun calling for greater operational and conceptual consensus for peer victimization parameters. Prominent among such work are attempts to parse out distinct aspects of victimization—such as frequency, duration, and stability—that might confer differential risk to targeted youth (e.g., Juvonen & Graham, 2013; Rueger, Malecki, & Demaray, 2011).

Parameters of Adverse Childhood Experiences

Given that distinct peer victimization parameters might yield differential risk for maladjustment, an empirical test of the predictive utility of distinct parameters could help elucidate some of the processes by which victimization confers internalizing risk to children. For example, is the *duration* of victimization experiences more predictive of internalizing risk than the *intensity* of those experiences? The answers to such questions could ultimately help advance the field's understanding for how to best help victimized youth most at risk. Unfortunately, there is relatively limited research comparing different aspects of victimization in how they relate to psychosocial outcomes. Thus, efforts to conceptualize key victimization parameters can draw from work examining parameters of other *adverse childhood experiences* (ACEs). Adverse childhood experiences—which include physical and sexual abuse, maltreatment, and household substance abuse—have been found to be predictive of long-term maladjustment (e.g., poor academic achievement, poverty, unemployment) and health risks (e.g., disability, early death; Felitti et al., 1998; Kessler et al., 2010; Wade, Shea, Rubin, & Wood, 2014). Growing evidence suggests scholars are considering peer victimization as another form of ACEs (Finkelhor, Shattuck, Turner, & Hamby, 2015; Forster, Gower, McMorris, & Borowsky, 2017; Gershon, Sudheimer, Tirouvanziam, Willams, & O'Hara, 2013). As such, I looked to the broader literature on early life stress and adverse childhood experiences for guidance on examining distinct aspects of victimization. Perhaps most relevant here is research exploring various parameters of child maltreatment and early trauma.

For decades, scholars in the child maltreatment field have evaluated the role of different maltreatment parameters on children's adjustment trajectories. For example, Manly, Cicchetti, and Barnett (1994) considered *severity, frequency,* and *duration* in relation to children's

behavioral problems and social competence. Manly and colleagues (1994) noted that specific dimensions of maltreatment evinced stronger predictive relations with child outcomes than a broadly construed criteria for maltreatment. In other words, the authors found that generating a global maltreatment score provided less predictive utility than evaluating distinct dimensions of maltreatment. This is not an unimportant finding, as it could relate to the manner in which scholars evaluate peer victimization processes. From an ACEs lens, peer victimization may be similar to other early life stressors; thus, it is possible that examining distinct aspects of victimization, rather than generating a global victimization score, could provide better predictive utility in identifying factors most predictive of risk.

Additionally, Manly and colleagues (1994) reported that maltreatment *frequency*—operationalized in their study as the total number of maltreatment events (with the supposition that greater number of reported events within a time span reflected more frequent maltreatment)—and *severity* (i.e., intensity) were both linked to behavior problems and inversely related to social competence. Further, they found an interaction between frequency and severity in that children with the most severe cases of maltreatment evinced significant maladjustment regardless of the frequency of these experiences. This finding suggested that intensity is another important parameter, given more severe maltreatment predicted problems even if the events occurred less frequently. Interestingly, Manly and colleagues also found that in children experiencing low severity events, frequent maltreatment predicted the worst outcomes—highlighting the potentially important role of frequency in children's maladjustment. Support was also found for the predictive utility of maltreatment *duration*: chronically maltreated children were perceived as more aggressive and at greater risk for peer rejection than transitory victims. In summary, Manly and colleagues found support for examining at least three distinct

aspects of maltreatment, reporting that children exposed to frequent, severe, and chronic maltreatment evinced risk for negative outcomes. Importantly, the authors highlighted different adjustment pathways that varied as a function of the parameter examined (e.g., chronicity was more predictive of aggressive behaviors than severity). Thus, these findings provide insight into important aspects of early life stress that may parallel bullying and peer victimization phenomena.

The early life stress literature also suggests two other important parameters to focus on are *informant source* and *cross-informant agreement*. Studies find that different rates of maltreatment are linked to differences in *informant source* (e.g., whether the respondent is a child or a teacher), and that elevations in distinct informant reports can predict different risk outcomes (Kaufman, Jones, Stieglitz, Vitulano, & Mannarino, 1994). Further, *cross-informant agreement* has been suggested as an important parameter to examine, given the relatively low agreement found between distinct informant sources on maltreatment experiences. The supposition here is that if multiple informant sources converge on agreement about a problem, the problem is likely more visible, pervasive, and overlapping across multiple contexts. Scholars recently suggested that "it is critical to understand why different informants perceive a child's functioning in different ways for purposes of prognosis and treatment planning for the child," recommending clinicians "to consider data points that both converge and diverge when making appropriate safety and treatment plans" (Romano, Weegar, Babchishin, & Saini, 2018; p. 19). If it is critical to examine differences across informants and identify whether they provide convergent data for diagnostic and intervention purposes, it seems warranted to also explore these informant-specific parameters when evaluating childhood victimization and school functioning.

Further complicating the relation between parameters and outcomes, there is evidence that parameters of adverse childhood phenomena vary in their predictive utility depending on the influence of other factors, including a child's age and developmental level, or the psychosocial outcomes assessed (e.g., English, Graham, Litrownik, Everson, & Bangdiwala, 2005a). Of these, demographic factors—such as gender (e.g., Cullerton-Sen et al., 2008; Doom, Cicchetti, Rogosch, & Dackis, 2013; Hyman, Garcia, & Sinha, 2006) and ethnicity (e.g., Bruce & Waelde, 2008; Munsch & Wampler, 1993)—have been found to be particularly important moderators (or even mediators) of the relation between early life stress (e.g., maltreatment, trauma exposure, school stress) and children's psychosocial outcomes (e.g., trauma-related anxiety, depression, aggression). Thus, *gender* and *ethnicity* might also be important factors to examine when evaluating the relation between early life stressors and maladjustment.

Summary. Extant work supports the need to further explore the relation between parameters of peer victimization—another form of adverse childhood experiences—and internalizing maladjustment. Though there are documented limitations in the study of peer victimization parameters, research from adjacent fields (e.g., childhood adversity, trauma) provides an empirical foundation to guide the evaluation of peer victimization parameters predictive of internalizing risk.

Parameters of Peer Victimization

Despite previously highlighted limitations, scholars have sought to explore the relation between individual aspects of peer victimization experiences and children's adjustment outcomes. In this section, I discuss the relation between four key parameters (*frequency, stability, informant source, cross-informant agreement*) and children's internalizing maladjustment.

Frequency. Studies have examined whether meeting a minimum frequency threshold of peer victimization within a time period (e.g., within the last 2 weeks, last 2 months) is predictive of psychosocial risk (e.g., Rigby & Griffiths, 2011). Concerning are findings suggesting that even youth experiencing less frequent involvement with victimization (e.g., once or twice in 30 days) are at significantly higher risk for externalizing and internalizing problems than non-victims (Gower & Borowsky, 2013). Highlighting the cumulative impact of more frequent victimization, Solberg and Olweus (2003) found that children who reported meeting or exceeding the frequency threshold of being bullied "two to three times a month or more*"* were at higher risk for subsequent maladjustment than children bullied "about once a month" or "once or twice" within the time frame provided ("within the last couple of months").

In a study on Finnish youth (n = 6,017), frequent victims were identified as those who reported "other children bully me almost every day," a significantly higher threshold than that used in Olweus' seminal work. Studies using this Finnish sample reported that frequent victims evinced increased risk for short-term psychiatric concerns compared to youth bullied less frequently (e.g., "other children bully me sometimes", "other children do not usually bully me"; Rønning et al., 2009; Sourander, Gyllenberg, & Klomek, 2016). Further, these studies found that, even when controlling for early psychiatric symptoms, frequent bullying during childhood was predictive of clinical symptoms of depression during adolescence (e.g., Sourander et al., 2016).

Across numerous studies, a similar pattern emerges: frequent victimization (particularly when assessed via self-report measures) has a strong positive relation with children's psychosocial maladjustment (Løhre, Lydersen, Paulsen, Mæhle, & Vatten, 2011). Research suggests that this pattern (i.e., more frequent victimization predicting greater maladjustment) can be found across different geographic regions and ethnic/racial groups. For example, Fleming and

Jacobson (2009) found that, of Chilean youth who reported being bullied in the past month, those reporting more frequent victimization endorsed greater levels of sadness, hopelessness, and depression. Similarly, in Australia, a population-based study (n = 1,221) found that 29.2% of youth (ages 8-9) reported frequently ("at least once a week") experiencing bullying victimization—with those frequently bullied reporting greater internalizing symptoms compared to uninvolved and infrequently bullied peers (Bayer et al., 2018).

A large-scale international comparison study of bullying on health-related phenomena—with a sample of 123,227 school-age youth across 28 countries—reported that the prevalence of health (e.g., headaches, stomach aches, sleep disturbance) and psychosocial problems (e.g., loneliness, nervousness, helplessness) consistently increases with more frequent victimization (Due et al., 2005). In summary, though methods to assess frequency of victimization might vary—such as using sample-specific statistics (Elledge, Cavell, Ogle, & Newgent, 2010) or norm-based cutoff scores (Solberg & Olweus, 2003)—findings consistently support that more frequent experiences of peer victimization place children at greater risk for maladjustment and internalizing problems (Waasdorp & Bradshaw, 2011).

Stability. Scholars have also focused their attention to the duration or stability of children's victimization experiences to better understand the impact that persistent exposure to victimization could have on children's adjustment trajectories (Craig & Pepler, 2003; Goldbaum, Craig, Pepler, & Connolly, 2003). Researchers have used a number of different terms when describing experiences of victimization that endure over time—including *chronic* (Smokowski, Evans, & Cotter, 2014; Telzer, Miernicki, & Rudolph, 2018), *stable* (Baly, Cornell, & Lovegrove, 2014; Garandeau, Lee, & Salmivalli, 2018), *repeated* (Pastrana, Craig, Gregus, Hernandez Rodriguez, Bridges, & Cavell, 2018; Randa, Reyns, & Nobles, 2016), *persistent*

(Hellfeldt, Gill, & Johansson, 2018; Sharp, Thompson, & Arora, 2000), *enduring* (Schäfer, Korn, Brodbeck, Wolke, & Schulz, 2005; Kretschmer, Barker, Dijkstra, Oldehinkel, & Veenstra, 2015), and *prolonged* (Craig, Pepler, & Blais, 2007).

Regardless of the term used to describe youth involved with long-term experiences of victimization, research suggests that this smaller subgroup of victims (typically estimated between 1.6-10% of samples) are at greater risk for negative outcomes than children whose victimization experiences are episodic or transitory in nature (Card et al., 2007; Gazelle & Ladd, 2002; Goldbaum et al., 2003; Haataja, Sainio, Turtonen, & Salmivalli, 2016; Hanish & Guerra, 2004; Juvonen et al., 2003; McDougall & Vaillancourt, 2015; Rueger, Malecki, & Demaray, 2011; Scholte, Engels, Overbeek, de Kemp, & Haselager, 2007; Sweeting, Young, West, & Der, 2006). Such studies have found that stable victims evidence greater internalizing symptoms than non-victims, children in control comparison conditions, and transitory victims (e.g., Boivin, Hymel, & Bukowski, 1995; Ghoul, Niwa, & Boxer, 2013; Price, Chin, Higa-McMillan, Kim, & Frueh, 2013; Pastrana et al., 2018). Thus, scholars indicate "the strength of longitudinal research in the area of timing (spanning kindergarten to mid-adolescence) necessitates that we pay attention to young people who appear to be chronically victimized" (McDougall & Vaillancourt, 2015; p. 306).

Informant source. Another important parameter of peer victimization is the informant source reporting on children's peer victimization experiences. Extant research on various childhood problems tends to find limited agreement between distinct informant sources. In their meta-analysis on childhood behavioral and emotional problems, Achenbach, McConaughy, and Howell (1987) found a moderate correlation (mean *r*s = .60) between similar informant sources, such as pairs of parents; and low correlation between different types of informants (mean *r*s =

.28), such as parent and teacher, and between child participant and other informants (mean *r*s = .22). Therefore, it is warranted to question whether unique informant sources also provide distinct information about children's victimization experiences.

When examining children's risk for adjustment problems, most research on childhood victimization has focused on *children's self-reports*. However, some scholars have proposed that different informants can provide unique perspectives on children's experiences with bullying and victimization (Achenbach, 2006; Ladd & Kochenderfer-Ladd, 2002). Thus, researchers have also used *teacher* (Iyer, Kochenderfer-Ladd, Eisenberg, & Thompson, 2010), *peer* (Crick & Bigbee, 1998; Salmivalli & Nieminen, 2002; Schwartz et al., 1997), and *parent reports* of victimization (Holt, Kantor, & Finkelhor, 2008) to examine youth victimization and its outcomes.

Supporting the notion of non-redundancy across informant sources, research has found low to moderate agreement on traditional (Rønning et al., 2009; Wienke Totura, Green, Karver, & Gesten, 2009) and cyberbullying (Wegge, Vandebosch, Eggermont, Rossem, & Walrave, 2016) reports of victimization between distinct informant sources. An emerging pattern found across studies is that self-reported victimization tends to be less concordant with other informant sources (e.g., Peets & Kikas, 2006). Given limited agreement found across multiple studies, it is possible that different informant sources capture unique aspects of victimization. Teachers might be more likely to notice overt physical victimization that occurs in their classrooms, whereas they might be less likely to notice more covert or relational forms of aggression. Peers could have a broader perspective across different school contexts (e.g., classroom, lunchroom, recess), but might not always recognize harmful behaviors as bullying or victimization (e.g., Ladd & Kochenderfer-Ladd, 2002), or might vary in their interpretation of victimization events

depending on their proximity and role within the peer group (e.g., Cornell & Bandyopadhyay, 2010; Cornell & Brockenbrough, 2004).

Such findings raise questions about whether different informants' victimization reports also predict maladjustment differently. Though limited in the number of studies comparing different informant sources, research tends to find evidence that distinct informant reports of victimization predict maladjustment risk differently. For example, Ladd and Kochenderfer-Ladd (2001) found that before 2nd grade, peer reports of victimization were less predictive of relational adjustment than self-reports. These authors found that distinct informant sources became increasingly more accurate and concordant between 2nd and 4th grade—with no single-informant source providing better utility than the other in predicting relational maladjustment in the later elementary school years.

However, studies continue finding differences in both informant concordance and differential risk trajectories. For example, Rønning and colleagues (2009) found that teacher-reported victimization—compared to other informant sources—was the strongest predictor of later psychiatric disorders in their sample. In contrast, Shin (2006) found that in a sample of 5th and 6th graders, self-reported victimization was more predictive of disturbance in internalizing processes (e.g., greater loneliness, worse self-perception) compared to peer reports, whereas peer-reported victimization was more predictive of social problems (e.g., greater peer rejection, lower peer acceptance) compared to self-reports. Given mixed results, scholars have reported hesitancy about the over-reliance of using one informant source alone to assess victimization phenomena (Branson & Cornell, 2009). Further, these findings suggest the need to continue evaluating how different informants' victimization reports predict risk for maladjustment.

Cross-informant agreement. Given the relatively limited agreement across informant sources regarding peer victimization experiences, scholars have also considered whether youth who are perceived by multiple informant sources (e.g., both child and teacher) as victimized are at increased risk for negative outcomes compared to youth who evince elevated scores from only one source. The question is whether elevated levels of victimization across multiple informants provide incremental risk for maladjustment. One supposition is that youth with elevated victimization scores across multiple informants might actually be experiencing more visible or problematic victimization than youth perceived as victims by only one source. Further, given low agreement across distinct informant source types, these youth could be at incremental risk via the additive effects of potentially different aspects of victimization captured by the distinct sources.

Only a handful of studies have examined cross-informant agreement in peer victimization. Ladd and Kochenderfer-Ladd (2002) found that a multi-informant victimization assessment yielded better estimates of relational maladjustment than single-informant reports. Similarly, another study found that youth experienced worse psychological and behavioral outcomes when both teacher and victim agreed on the victim's involvement in victimization compared to teacher or child reports alone (Wienke Totura, Green, Karver, & Gesten, 2009). The authors reported that in these cases, "students are involved in bullying and victimization to such a degree that all of their problem areas readily come to the attention of teachers" (p. 206). Though such studies are promising in highlighting a potentially important parameter, more research is needed to examine the relation between cross-informant agreement and children's maladjustment, particularly for internalizing dysfunction.

Summary. Extant research suggests there are a number of peer victimization parameters that could play pivotal roles in predicting risk for maladjustment. However, it is not clear which

of these parameters is most predictive of internalizing risk. Studies investigating different aspects of victimization have typically lacked *a priori* conceptual considerations about the mechanisms that might place victimized children at risk. To better understand the relation between parameters of victimization and maladjustment, researchers might benefit from attending not only to extant empirical findings, but also to conceptual models of risk.

Conceptual Considerations: Peer Victimization and Internalizing Maladjustment

Though victimization is considered a public health concern and has been widely studied over the past four decades, scholars still lack clarity in "understanding how exposure to bullying leads to psychiatric disorders" (Sourander, Gyllenberg, Klomek, Sillanmäki, Ilola, & Kumpulainen, 2016, p. 164). Recently, Arseneault, Bowes, and Shakoor (2010) made a call to the field, proposing that "if bullying is an environmentally mediated causal risk factor for children's mental health problems, future research needs to investigate processes that might explain why bullied children manifest early signs of psychopathology" (p. 723). As such, it is essential to examine frameworks that can better elucidate mechanisms critical to the development of maladjustment following peer victimization. In this section, I highlighted various models of risk—guided by two principal conceptual frameworks (*information processing model, social ecological model*)—that might explain the relation between peer victimization and children's internalizing maladjustment. Additionally, I briefly summarized conceptual considerations regarding child demographic factors (*gender*, *race*/*ethnicity*) that could further explain the differential internalizing risk experienced by victimized youth.

Information processing models. First, I drew from the *information processing* literature to discuss how social-cognitive processes could play a vital role in the development of internalizing dysfunction in children victimized by peers. Information processing models focus

on the processes in which individuals encode social cues, develop cognitive schemas, interpret information, and arrive at cognitive and behavioral responses to stimuli (Salzer Burks, Laird, Dodge, Pettit, & Bates, 1999). The model describes how disruptions and biases in different stages of cognitive processing—such as encoding or interpreting social cues—can predict maladjustment (Beck & Clark, 1997).

For decades, scholars have used information processing models to describe pathways to maladjustment—including for childhood psychosocial problems (e.g., Crick & Dodge, 1994; Dodge & Crick, 1990). Evidence suggests that cognitive mechanisms described in these models are linked to the development of childhood internalizing symptoms, particularly depression and anxiety (e.g., Daleiden & Vasey, 1997; Hammen & Zupan, 1984; Lau & Waters, 2017). From an information processing framework, I highlighted key conceptual models (i.e., *attribution theory, theory of learned helplessness, attributional style theory, victim-schema model*) and their proposed mechanisms that may explain how victimization could impart risk for internalizing problems.

Attribution theory. *Attribution theory* provides a model that describes how individuals perceive and interpret information to arrive at causal explanations for events (Fiske & Taylor, 2013; Weiner, 1972; Weiner, 1982). Weiner theorized that an individual's appraisal about the causality of an event directly affects his or her emotional state and the behaviors that follow (Weiner, 2006). The model proposes that three causal dimensions (*locus*, *stability*, *controllability*) play a pivotal role in explaining how attributions influence emotion and behavior, as well as risk for maladjustment.

Causal *locus* describes whether an event is interpreted to be caused by internal or external factors. For example, a child bullied by peers could attribute victimization to internal causes—

"because I am not smart or funny"—thus making an internal (i.e., dispositional) attribution. Alternatively, a child could attribute peer victimization to external causes— "because peers are mean to me" or "because the teacher did not stop the bully"—thus making an external (i.e., situational) attribution. Attribution theory proposes that external and internal attributions can influence distinct emotional experiences. For example, internal attributions play a significant role in the experience of pride and positive self-esteem, particularly for dispositional attributions related to success at difficult tasks. In contrast, dispositional attributions for failure at tasks perceived to be easy or normative, such as making friends, have been linked to lower self-esteem and greater self-blame and shame. The model suggests that internal and external attributions can be made about both the self and others. For example, a child could attribute that a peer was bullied because of dispositional (e.g., lack of intelligence or athletic ability) or situational factors (e.g., peer was at the wrong place or time). The theory also suggests the locus of attributions can extend to shared identity processes, such as experiencing shame for the failures of one's friends or ethnic group.

Causal *stability* refers to the interpretation of events as caused by either stable (e.g., permanent) or unstable (e.g., fluctuating, changing) phenomena (Weiner, 2014). For example, a child could attribute being a victim to his or her: height or athletic ability (dispositional stable attribution); lack of effort in engaging peers or refusal to share toys (dispositional unstable attribution); lack of a teacher advocate or permanent seat assignment (situational stable attribution); or sitting next to an aggressive peer at lunchtime (situational unstable attribution). The model suggests that individuals who attribute failures to stable internal factors (e.g., aptitude, looks) could be at greater risk for experiencing lower self-esteem, which might decrease their future expectancy of perceived success (Weiner, 2014). Though unstable internal

attributions might also decrease self-esteem, low effort can be improved upon, thus not predicting the greater risk for hopelessness observed with stable internal attributions. Further, failure attributed to external stable factors does not appear to be as strongly linked to self-esteem, but it does appear to be predictive of hopelessness. Perhaps, children that make stable external attributions about their victimization reduce the likelihood that they will "blame" themselves for being victimized, thus reducing the impact that victimization may have on their self-esteem, since someone or something else is "causing" the victimization.

Causal *control* refers to the perceived controllability of the cause of an outcome. In other words, causal control describes the degree of how controllable or uncontrollable an individual believes the cause of an event or outcome to be. For example, a child perceiving victimization to be caused by uncontrollable internal factors (e.g., height) might be at greater risk for hopelessness (since height is uncontrollable) compared to a child who attributes victimization to effort (e.g., "I didn't try hard enough to make friends"), since effort is something within the child's control. Moreover, individuals' affective experiences also appear to be influenced by their perceptions of responsibility (who or what is in control of the cause). A child that attributes victimization to external factors within the control of other individuals (e.g., "kids choose to be mean to me") might be prone to frustration and disappointment, considering the child might perceive that peers have volition and *choose* to engage in harmful, aggressive behaviors. In this example, the child might be at greater risk to resent—and respond negatively to—peers. Research finds that external attributions for events perceived to be controllable are linked to reactive aggression in victimized youth, especially for bully-victims (Georgiou & Stavrinides, 2008). Nevertheless, a victim that perceives victimization occurs because of uncontrollable external factors (e.g., "kids call me mean names because they were raised that way"; "I get

bullied because of my assigned seat") might be at greater risk for hopelessness compared to a child who attributes victimization to external factors but perceives the situation to have greater controllability (e.g., "maybe the bullying will stop if I tell the teacher I'm being bullied and ask for a different seat").

According to attribution theory, interactions between attribution dimensions (locus, stability, controllability) can help determine both success and failure-linked emotions—that is, emotions hypothesized to influence behavior. In particular, failure-linked emotions are predictive of maladjustment and include: anger, unhappiness, shame (humiliation, embarrassment), guilt (regret), helplessness, and hopelessness. Studies have evaluated how attributional processes may impact the course of failure-linked emotions and children's risk for psychopathology. For example, both shame and guilt are proposed to stem from self-blame—an internal attribution—though differences in individuals' perceptions of control and stability may activate either shame or guilt. Graham and Juvonen (2001) distinguished between two internal self-blame attributions that differed on controllability and stability: a) *characterological self-blame* (uncontrollable and stable), and b) *behavioral self-blame* (controllable and unstable). According to the model, shame is "aroused by inadequate public characteristics of the self that are not under volitional control" (Weiner, 2014, p. 18)—suggesting that shame might arise from attributing a failure (e.g., being victimized by peers) to uncontrollable circumstances of a characterological nature (e.g., "my nose is too big", "I'm not smart enough"). Alternatively, the model proposes that guilt may develop from attributing the cause of failure to self-directed behaviors (e.g., "I put my shirt on backwards", "I was being annoying") that were controllable and unstable (e.g., "I could have paid more attention", "I could have behaved differently").

In the previous example, different attribution combinations predicted distinct affective experiences (*shame* versus *guilt*). These differential pathways, in turn, are linked to distinct psychosocial outcomes. For example, though both shame (Gambin & Sharp, 2018; Sjöberg, Nilsson, & Leppert, 2005) and guilt (Ghatavi, Nicolson, MacDonald, Osher, & Levitt, 2002) have been explored as both risk and mediating factors for depression, studies suggest that shame consistently has a unique direct effect on depression while guilt does not (Orth, Berking, & Burkhardt, 2006; Webb, Heisler, Call, Chickering, & Colbum, 2007). This might be explained—at least partially—by mechanisms proposed by attribution theory itself. Guilt might provide an opportunity for positive behavior change: an individual can learn to behave differently given the *behavioral* self-blame nature of the attribution, which could potentially buffer depressive symptoms. Alternatively, shame could lead to behavioral inhibition and social withdrawal: attributing the outcome to *characterological* traits (permanent and uncontrollable) might foster the expectancy that the negative outcome is both likely to occur again and outside of the victim's control—increasing the risk for depression or anxiety. Supporting these attribution pathways as predictors of risk, Graham and Juvonen (1998) found that victimized children who demonstrate more characterological self-blame report greater loneliness and social anxiety than those who tend to behaviorally self-blame. These are but a few examples of how victimized children's attributions may play a role in determining the short- and long-term consequences following victimization (Kinderman & Bentall, 1996). In summary, attribution theory provides a conceptual framework that might explain how children's cognitions about victimization could play a pivotal role in their risk for internalizing maladjustment—with those at seemingly greatest risk being children that endorse characterological self-blaming attributions.

Theory of learned helplessness. Evidence from the depression (Abramson, Seligman, & Teasdale, 1978), trauma, and basic sciences literatures (Seligman & Groves, 1970; Seligman & Beagley, 1975) support *learned helplessness* as another mechanism that may impart internalizing risk to youth exposed to long-term victimization. Seligman's (1972) *theory of learned helplessness* proposes that individuals repeatedly exposed to uncontrollable negative events (without the capacity to escape them) become conditioned to the pain and suffering associated with these events. The model suggests that experiencing a prolonged, uncontrollable aversive state innately leads to helplessness, which interferes with cognitive, affective, and motivational processes (Asarnow & Bates, 1988; Maier & Seligman, 2016).

According to the model, repeated exposure to negative experiences that are—or are perceived to be—uncontrollable alter children's expectations for the future. Expectations that aversive circumstances will likely remain constant can negatively impact children's functioning, including their motivations (e.g., decreased persistence in attempting to make friends), emotional states (e.g., increased sadness), and self-perceptions (e.g., decreased self-esteem; Nolen-Hoeksema et al., 1986). Repeated exposure to negative events and thoughts that the circumstances are unlikely to change may reduce victimized children's capacity to believe that escape from such circumstances is even possible (Roth, Coles, & Heimberg, 2002). When escape from peer victimization is believed to be impossible, victims may develop learned helplessness, disturbance in internalizing processes, and ultimately, depression.

As noted previously, children exposed to longer-term victimization appear to be at greater risk for maladjustment than those experiencing transitory victimization. For example, chronically victimized youth evidence greater unhappiness at school and more internalizing problems than non-victims and transitory victims (Arseneault et al., 2006). Kochenderfer-Ladd

and Wardrop (2001) found that chronic victims—as early as kindergarten—evidenced significant levels of loneliness and other internalizing problems that maintained over time. Thus, it is possible that children exposed to stable or prolonged victimization could be evidencing greater risk through the manifestation of a learned helplessness state. In summary, evidence suggests that exposure to chronic victimization that cannot be escaped from could lead to learned helplessness, which is strongly associated with depression and internalizing maladjustment.

Attributional style theory. *Attributional style theory* proposes that individuals evidence biases and patterns that influence the types of attributions they make about themselves and the world (Abramson, Metalsky, & Alloy, 1989). Of particular relevance to peer victimization might be the patterns that bias the way children interpret cues from peers. Some youth may be more inclined to interpret social cues positively (which tends to foster resiliency), while others are more likely to interpret cues negatively (which is associated with negative outcomes). Of these tendencies, negative attribution bias (i.e., the tendency to interpret cues and events negatively) has been significantly linked to maladjustment and—from a social information processing lens—could be critical in understanding how victimization confers risk for psychosocial problems. Two negative attributional patterns have been primarily linked to maladjustment: depressive attribution bias and hostile attribution bias.

Depressive attribution bias—sometimes referred to as pessimistic bias or cognitive style—is a maladaptive cognitive pattern in which individuals tend to attribute positive events to external, specific, unstable causes, and negative events to internal, global, and stable causes (Abramson, Metalsky, & Alloy, 1989). Studies find that children exhibiting a depressive attribution bias—compared to children exhibiting other cognitive styles—are at greater risk for developing learned helplessness when exposed to prolonged negative experiences (Nolen-

Hoeksema, Girgus, & Seligman, 1986). Scholars suggest children at greatest cognitive risk for learned helplessness and depression are those who: a) desire an appetitive outcome (e.g., acceptance from peers, protective friendships, reduction in victimization) but believe it improbable; b) seek to avoid an aversive outcome (e.g., peer rejection, victimization) but believe it highly likely; and c) have little perceived confidence that their own behavior could change either outcome (e.g., "even if I stay out of their way, I don't think they will stop bullying me"). Simply, the model predicts that individuals at high risk for depression are those who tend to make characterological self-blaming (stable, global, internal) attributions, particularly for perceived failures (Abramson, Seligman, & Teasdale, 1978; Kinderman & Bentall, 1997; Luten, Ralph, & Mineka, 1997; Shelley & Craig, 2010).

Hostile attribution bias is another cue interpretation tendency thought to play a role in peer victimization processes (Perren, Ettekal, & Ladd, 2013). Hostile attribution bias is characterized by the tendency to ascribe hostile intent to others' behavior even without evidence to support intentionality, particularly during ambiguous or neutral interactions (Kokkinos & Voulgaridou, 2018). For example, a child biased toward attributing hostile intent may interpret peer laughter as an act of aggression (e.g., "she is making fun of me") or a fist bump as a potential threat (e.g., "he is going to punch me"). Not surprisingly, bias to interpreting cues as threatening can be problematic, given the positive link found between hostile attribution bias and youth maladjustment. Hostile attribution bias has been found predictive of aggression (Dodge et al., 2015), externalizing problems (Dodge, 1980), and anxiety symptoms (Banks, Scott, & Weems, 2017; Weems, Costa, Watts, Taylor, & Cannon, 2007).

Studies find that hostile environments—such as contexts in which a child is repeatedly victimized by peers—can increase children's risk for ascribing hostile intent to social cues

(Camodeca & Goossens, 2005; Guy, Lee, & Wolk, 2017). Extant work suggests that abused and maltreated children are more likely to be sensitive to anger cues, particularly in facial expressions (Pollak & Tolley-Schell, 2003), prompting scholars to propose that bullied youth could also be at risk for over-sensitivity to threat cues, which might increase their risk for psychopathology (Arseneault, Bowes, & Shakoor, 2010). Jack and Egan (2018) recently expanded such research, finding that adolescents who experienced more severe bullying victimization evidenced greater distress, paranoid thinking, and threat overestimation. From a social cognitive framework this makes sense—when exposed to repeated negative peer interactions, victims may develop sensitivity to social cues that trigger the expectation of impending threat from peers, making it difficult for victims to accurately differentiate peers' hostile intent from neutral or benign intent.

Both depressive and hostile attribution biases appear to play important roles in the adjustment process of victimized youth. For example, Perren, Ettekal, and Ladd (2013) found, in a sample of 478 children grades 5th through 7th, that hostile attributions mediated the relation between peer victimization and increases in youth externalizing concerns. Further, Perren and colleagues reported that in youth who evidenced greater self-blaming attributions, victimization was a stronger positive predictor of internalizing problems. In summary, research suggests two primary pathways in which attribution bias may be linked to maladjustment in victimized children: depressive attribution bias linked to self-blame and internalizing concerns, and hostile attribution bias linked to aggression and externalizing concerns (which is also associated with the development of later internalizing problems).

Victim schema model. The *victim schema model* expands upon previously described information processing models, proposing that the negative outcome (e.g., peer victimization)

actually changes how children process social-cognitive information. While other models suggest that bias in attributions might serve as a precursor to maladjustment (e.g., youth evidencing negative cognitive bias may be at greater risk for experiencing maladjustment following exposure to victimization), the victim schema model proposes that repeated exposure to victimization *causes* children to develop a negative cognitive bias (Rosen, Milich, & Harris, 2007). Thus, repeated negative interpersonal interactions can begin altering children's perceptions of themselves (Bandura, 2001), their predictions that future interactions will be increasingly more negative, and their sensitivity to threat cues. Supporting this concept, research finds that victimized youth begin exhibiting greater self-blaming attributions (compared to non-victimized youth) when exposed to imagined experiences of victimization (e.g., Kingsbury & Espelage, 2007). In other words, children are more likely to blame themselves for victimization even when under an imaginary or hypothetical paradigm. Youth who believe that change might not be possible and begin internalizing their role as victims could develop a *victim schema* (Perry, Hodges, & Egan, 2001). With repeated exposure to cues that signal activation of the victim schema, such as enduring victimization, youth could become conditioned to believe that these contextual clues confirm their victim status, increasing their risk for psychopathology. As the victim role is internalized, youth may not only begin developing a negative perception of themselves, but also of the contexts in which the victimization occurs, such as the peer ecology (Rosen et al., 2007).

The victim schema model implies that children's cognitions about themselves—and their social context—change as a function of victimization itself, with youth's self-concept increasingly linked to their contextual experiences. Targeted victimization conveys information to children—thus reinforcing children's negative social cognitions about themselves (Cole,

Maxwell, Dukewich, & Yosick, 2010). Youth who continue experiencing (and attempting to make sense of) repeated victimization may be increasingly more likely to view themselves as children who get victimized by peers. Accepting a victim label (and the expectations associated with such a label), a bullied child may become prone to a *self-fulfilling prophecy*, in which the "public definitions of a situation (prophecies or predictions) become an integral part of the situation and thus affect subsequent developments" (Merton, 1948; p. 195). Through the forming of a victim schema, children may be more likely to misattribute intent or cues from their social environment; in doing so, influencing the likelihood that their behavior may invite (or facilitate) victimization from peers. For example, Sumter, Baumgartner, Valkenburg, and Peter (2012) suggest that the cognitive bias associated with accepting a victim role "will contribute to children acting awkwardly in future interactions and increases their chance of further victimization…part of a continuous, self-sustaining cycle" (p. 608).

Supporting the victim-schema concept, studies have found that repeated victimization—particularly self-reported victimization—predicts increase in negative internal attributions and negative self-concept (e.g., Boivin & Hymel, 1997; Egan & Perry, 1998), as well as decreases in self-reported competence and self-worth (e.g., Bellmore & Cillessen, 2006; Boulton, Smith, & Cowie, 2010). For children exposed to repeated victimization, research links children's self-perceptions to lower self-esteem (Esbensen & Carson, 2009; Overbeek, Zeevalkink, Vermulst, & Scholte, 2010; Paul & Cillessen, 2003) and greater psychosocial dysfunction (Graham & Juvonen, 1998; Troop-Gordon & Ladd, 2005)—both concurrently and prospectively. In summary, research suggests early victimization predicts changes in children's self-evaluations, influencing the formation of a victim schema, which predicts—through direct or mediational

pathways—the development of depression or anxiety (e.g., Grills & Ollendick, 2002; Olweus, 1993; Taylor, Sullivan, & Kliewer, 2013; Troop-Gordon & Ladd, 2005).

Social ecological model. Bronfenbrenner's (1979) *social ecological theory* is another framework that can be used to examine the link between peer victimization and internalizing maladjustment. The model extends Bandura's (1977) *social learning model*, which proposes that human functioning (or dysfunction) results from a complex, dynamic, and reciprocal interplay between a person's social cognitions, the person's behavior, and the social context in which the person is embedded in (Bandura, 2001). Bronfenbrenner's model explains how an individual's development is dependent on his or her internal development, changes in the environment, and the evolving interaction between the two. One of the primary tenets of the theory is that individuals exist within structures (e.g., family, classrooms) nested within other structures (e.g., neighborhood, schools), and so forth. That is, individuals develop within systems—systems that may interact independently of the individual, but also have a reciprocal or bidirectional relation with the individual (e.g., the individual influencing change in the environment and vice versa). A *diathesis-stress model* from a social-ecological framework postulates that an individual's vulnerabilities become activated by systems that reinforce contextual stressors, resulting in reciprocal internal-environmental changes that could lead to the development of psychopathology in vulnerable youth.

Scholars have recently begun examining potential applications of social-ecological theory for children's victimization experiences (for a review, see Espelage, Rao, & De La Rue, 2013). Swearer and Doll (2001) proposed that when the ecological framework is applied to bullying and victimization, the events occur not only because of the individual characteristics of involved youth, "but also because of actions of peers, actions of teachers and other adult caretakers at

school, physical characteristics of the school grounds, family factors, cultural characteristics, and even community factors" (p. 10). According to the model, children exist within systems that may reinforce victimization experiences, which may activate internal vulnerabilities that could exacerbate victimization—in a cycle that could perpetuate the development and maintenance of maladjustment. From a social-ecological lens, I review three contexts (*biopsychosocial, peer, school*) that might explain the development of internalizing psychopathology in children victimized by peers.

Biopsychosocial vulnerabilities. First, it is important to highlight individual biopsychosocial vulnerabilities that may be activated by environmental stressors such as peer victimization. From a biopsychosocial model, research suggests that *social exclusion and physical pain tend to activate similar neurological pathways*, both in nonhuman animals (MacDonald & Leary, 2005) and humans (Vaillancourt, Hymel, & McDougall, 2013). Such work suggests that children rejected and victimized by peers might actually experience the repeated activation of neural receptors associated with pain. Scholars have found that the experience of social humiliation tends to be relieved and re-experienced more easily than physical pain, with emotions from social rejection felt more intensely than those from physical injury (Chen, Williams, Fitness, & Newton, 2008). Further, research on chronic pain suggests that children experiencing persistent pain tend to cope with the pain via passive coping strategies (e.g., disengagement, isolation, denial), which increases children's risk for anxiety and depressive symptoms (Compas et al., 2006; Walker, Smith, Garber, & Claar, 2005). Similarly, withdrawal and disengagement are typical responses to prolonged exposure to peer victimization and rejection. Perhaps, these are strategies children use in response to experiencing intense emotional pain. In summary, extant work suggests that children may evidence a particular neural

sensitivity to social rejection and victimization. This sensitivity might be linked to internalizing dysfunction via both the repeated activation of pain networks and subsequent (ineffective) attempts to cope with distress.

Additionally, studies find that prolonged exposure to early life stress is associated with *disruptions of the physiological stress response system*. The hypothalamic-pituitary-adrenal (HPA) axis is a system of glands in the body that—among other crucial functions—stimulates the secretion of the steroid hormone cortisol in response to stress. Though cortisol is necessary and adaptive, dysregulated production (as often observed in youth experiencing early life stress) can have a negative impact on children's health (Tarullo & Gunnar, 2006). Much research has found that *elevated HPA reactivity* is associated with experiencing stress and trauma during childhood. Elevated HPA reactivity is linked to long-term risk for development of problems with depression (e.g., Heim, Newport, Mletzko, Miller, & Nemeroff, 2008) and anxiety (e.g., Vreeburg et al., 2010), including social phobia (van West, Claes, Sulon, & Deboutte, 2008) and generalized anxiety (Mantella et al., 2008). Further, evidence suggests that if the HPA system is over-activated during key developmental phases, it likely remains permanently altered (Faravelli et al., 2012). Thus, scholars have hypothesized that "neuroendocrine alterations after an early stress can result in a biological 'wound' that increases the individual's vulnerability to stressors later in life and thus, predisposes an individual to develop mood or anxiety disorders that are known to manifest or worsen in relationship to acute or chronic life stress" (Faravelli et al., 2012; p. 21).

Though some scholars report that early stress can lead to over-activation of the HPA system, others have found that chronic exposure to early stressors—such as maltreatment or peer victimization—could result in *blunted HPA reactivity*. For example, Oullet-Morin and colleagues

(2011) found that—from a sample of 190 12-year-old children—those who experienced bullying and/or maltreatment (n = 64) evidenced lower cortisol reactivity in response to psychosocial stress compared to same-age children. The authors reported that lower cortisol production was linked to greater maladjustment in children who had experienced bullying/maltreatment. Moreover, youth exposed to adversity appear to initially experience an increased sensitivity to HPA reactivity, which may taper off in response to repeated activation from chronic exposure to trauma and stress—leading to blunted reactivity in later years (Shea, Walsh, MacMillan, & Steiner, 2005; Trickett, Noll, Susman, Shenk, & Putnam, 2010; von Klitzing et al., 2012). Peer victimization itself has been found to predict lower levels of cortisol (Kliewer, 2006), unsurprising given similar findings from the maltreatment, trauma, and PTSD literatures. For example, Vaillancourt, Hymel, and McDougall (2013) described how the physiological stress response for prolonged exposure to trauma was similar to the response associated with chronic exposure to peer victimization. Vaillancourt and colleagues (2013) noted that "from a physiological perspective, peer victimization represents a relatively extreme and/or persistent stressor, which ultimately leads to uncharacteristic cortisol levels" (p. 243). As such, extant research suggests that early stressors predict changes in HPA functionality, which is subsequently linked to the development of internalizing maladjustment.

Further, recent studies have examined the link between peer victimization, *immune functioning*, and internalizing symptoms. This is particularly important, given preliminary work linking psychological well-being to immune functioning in normative, healthy youth. For example, in a sample of pre-adolescent children, a longitudinal study found a negative relation between self-efficacy and immune functioning; in girls, the authors found a positive relation between depressive symptoms and physical illness (Caserta, Wyman, Wang, Moynihan, &

O'Connor, 2011). Though results were modest, the findings suggest that if healthy youth are at risk for experiencing changes in immune system functioning because of psychosocial processes, then immune system processes might be significantly more compromised in youth experiencing early life stress. For example, in youth evidencing cognitive vulnerability (e.g., high degree of hopelessness), a recent lab-based study found that peer victimization more strongly predicted increases in acute cytokine inflammatory responses (Giletta et al., 2018). Cytokines mediate regulatory processes associated with immunity, inflammation, and HPA activation in response to stress (Turnbull & Rivier, 1995). Though cytokine activation often occurs as a response to injury or illness to coordinate the body's healing processes (Arai et al., 1990), over-activation of proinflammatory cytokines can lead to numerous complications—including rendering an individual immune-compromised (Lin, Calvano, & Lowry, 2000). Peer victimization, in acting as a stressor that over-stimulates the stress-regulatory response, could also result in children's immune system to be compromised. Indeed, scholars find that victims endorse more physical symptoms than nonvictims, which might be a consequence of immune system changes following prolonged exposure to victimization (Nishina, Juvonen, & Witkow, 2005; Rosen et al., 2009). Further, problems with immune functioning impact a wide range of domains, including children's physical health, somatic symptoms, illnesses, medical visits, and school absenteeism.

In summary, peer victimization is a social stressor that can activate children's experience of pain, negatively impact the neuroendocrine and stress regulatory systems, and even alter the body's immune functioning. Thus, Vaillancourt and colleagues (2013) concluded that "the experiences of peer victimization become embedded in the physiology of the developing person, placing him or her at risk for life-long mental and physical health problems" (p. 241).

Peer context. Scholars have also noted the importance of understanding the relation between the peer context and victimized children's risk for internalizing maladjustment. One such dynamic is the role that *social preference* plays in protecting from—or conferring—risk for maladjustment. Studies suggest that social preference (i.e., how well-liked a child is by peers) plays a bidirectional role in children's victimization experiences. While high social preference reduces risk for victimization, children who are not well-liked by peers (i.e., *low acceptance*)—or are actively disliked (i.e., *rejected*)—are at greater risk for victimization and maladjustment (Bradshaw, Sawyer, & O'Brennan, 2009; Card & Hodges, 2008; Crick & Grotpeter, 1995). Research suggests that children rejected by peers tend to evidence behaviors that make it difficult for others to like them (Parault, Davis, & Pellegrini, 2007). As children continue experiencing social rejection, they may also begin withdrawing from peers and evidencing school adjustment problems (Parker & Asher, 1987). In a reciprocal cycle, victimization degrades victims' reputation and peer acceptance, thus increasing their rejection by peers and likelihood of behaviors (e.g., withdrawal, aggression) that could invite victimization (Haynie, Nansel, Eitel, Crump, Saylor, & Simons-Morton, 2001; Sentse, Scholte, Salmivalli, & Voeten, 2007). This perpetuating cycle predicts stress and maladjustment, such as social isolation and loneliness (Asher & Wheeler, 1985).

Another pathway in which low social preference and peer rejection could impart risk to victimized children is that these could *interfere with children's capacity to develop appropriate interpersonal skills*. Victimized children may evidence limited opportunity to practice skills necessary to navigate their social environment successfully (Sandoval et al., 2015; Scholte, Engels, Overbeek, De Kemp, & Haselager, 2007). This repeated exposure to aversive experiences could negatively impact children's perceptions about their role within the peer

ecology, and their capacity to engage successfully with same-age peers. Bellmore and Cillessen (2006) proposed that children who think peers view them as victims "may come to view themselves as disliked by these peers and eventually as generally unlikeable and socially incompetent" (p. 211). Feeling socially incompetent, children may become anxious about future interactions with peers, or lack the confidence to engage in normative social behaviors. Supporting this notion, scholars report that children whose victimization is more stable tend to abandon more quickly commonly recommended strategies for managing aggressive peers and school bullies (Elledge, Cavell, Ogle, Malcolm, Newgent, & Faith, 2010b). In short, low social status may limit children's capacity to develop the skills necessary to navigate their social environment, which may stunt children's interpersonal growth and increase their risk for internalizing concerns.

Research also suggests that supportive peers and friends may mitigate the risk that victimization, low social status, and rejection have on children's psychosocial functioning. Peers and friends can provide support, social resources, and even protection from victimization (e.g., Kochel, Ladd, Bagwell, & Yabko, 2015). In contrast, *absence of friendships could expose children to psychosocial vulnerabilities* (Kendrick, Jutengren, & Stattin, 2012). Though protective friendships may mitigate the impact of victimization—via bystander intervention or support—victims may evidence difficulty making friends that could buffer the risk for internalizing maladjustment (Hodges, Boivin, Vitaro, & Bukowski, 1999). Children without close friends experience the greatest risk for increased victimization (Boulton, Trueman, Chau, Whitehand, & Amatya, 1999). Card and Hodges (2008) proposed that "victimization leads to a lack of friendships because peers may distance themselves from the targeted child" (p. 454). Lack of friends may not only reduce victims' social protection, but also exacerbate negative

cognitions about themselves (e.g., "others don't like me", "I don't know how to make friends") and subsequent emotional states (e.g., sadness, loneliness, frustration). Ultimately, not having friends—or the skill or opportunity to make friends—increases childhood risk for internalizing problems (Hodges, Boivin, Vitaro, & Bukowski, 1999).

Further, when peers distance themselves from a target child, he or she might become isolated, placing the child at risk for continued victimization. Isolation from others that are well-liked may only increase the likelihood that the pool of peers a victimized youth can interact with shrinks. Thus, another proposed pathway for maladjustment is that peer rejection can be integral in "*determining and restricting the range of social alternatives open to rejected children*, *leaving them more exposed to deviant peer group influences than other children*" (Coie, Lochman, Terry, & Hyman, 1992, p. 790). This risk pathway has been observed across grades, gender, and ethnic groups—in that peer victimization predicts alienation from others, which then predicts deviant peer affiliation (Rudolph et al., 2014). Deviant peer affiliation is associated with both externalizing and internalizing problems in youth. Morin and colleagues (2017) highlighted various hypotheses that may explain this co-occurring relationship.

According to Morin and colleagues (2017), in the *failure hypothesis*, externalizing behaviors reduce the likelihood that children develop competence across different school domains, which predicts internalizing risk. Thus, "if bullying persists for an extended period, victims may begin to generalize this sense of unskillfulness to other areas of their lives" (Sandoval et al., 2015; p 116). In the *acting out hypothesis*, children experiencing internalizing concerns may be reactive to stimuli in their environment and more likely to engage in externalizing behaviors. Further, children experiencing internalizing dysfunction may also fail in school and social domains, subsequently risking placement with deviant peers. Finally, according

to the *adjustment erosion hypothesis* (Moilanen, Shaw, & Maxwell, 2010), children evidencing both internalizing and externalizing dysfunction experience decreased competence across school domains in a mutually reinforcing relationship that yields risk for psychosocial problems (Deighton, Humprhey, Belsky, Boehnke, Vostanis, & Patalay, 2018). In summary, children experiencing low social preference may: be targeted more by peers, receive less peer support, experience difficulty making and maintaining friends, increasingly become isolated from prosocial peers, be more likely to join deviant peer groups, and experience both internalizing and externalizing maladjustment.

School context. The school context can also have a significant impact in children's adjustment trajectories. Extant research suggests that *certain settings (e.g., lunchroom, recess) within the school are hot spots for victimization* and increased risk for vulnerable youth (Astor, Meyer, & Behre, 1999). In these settings, peers may permit victimization by either joining in, actively reinforcing aggressive behaviors (e.g., laughing, guffawing, mocking), or passively allowing victimization to continue through inaction or lack of bystander intervention. Victimized youth may begin developing a conditioned fear response, enhancing their expectation of threat by peers in these settings (Lereya, Copeland, Zammit, & Wolke, 2015). Consequently, children may begin avoiding certain settings (e.g., lockers) for fear of continued exposure to victimization. Unfortunately, victims may not be able to avoid settings in which attendance is mandatory (e.g., all students might be required to eat lunch in the school lunchroom). Thus, victimized youth might experience elevated anxiety about going to these locations, or endure them with significant distress. Recent work has expanded on the social risks (and potential rewards) of such "hot spots." For example, Craig and colleagues (2016) found that lunchtime peer acceptance (i.e., a context-specific peer preference) predicts both victimization and

internalizing maladjustment, even when controlling for class-wide social preference. These findings suggest that context matters, and that children's victimization experience in high-risk school settings could vary as a function of how well-liked children are or how peers interact with them in these settings.

Another school context factor that scholars have begun paying attention to is the *level of prosocial interactions* at the classroom and grade levels. Paradoxically, recent work has found that children who are victimized in classrooms that evidence greater prosocial behaviors tend to evince significantly worse psychosocial outcomes, including internalizing maladjustment (Schacter & Juvonen, 2015). For example, Schacter and Juvonen found that in classrooms with less victimization, victims tended to engage in greater characterological self-blame. This could be, in part, because victimized children in more prosocial settings may experience a greater sense of responsibility for the experiences (e.g., "something must be wrong with me if I'm the only one that gets bullied"). Alternatively, dysfunction in victimized youth in these settings could be attributed to the concept that victims may appear to be, comparatively, more socially deviant than their peers (Huitsing, Veenstra, Sainio, & Salmivalli, 2012). Consequently, those who experience greater victimization in these more prosocial settings may need greater peer and adult support, given the "possibility that prosocial school communities could leave certain students even more susceptible to maladjustment" (Morrow, Hubbard, & Sharp, 2018). These are but only a handful of mechanisms among a wide variety of social ecological factors (e.g., geographical region, acculturation, socioeconomic factors) that might explain the relation between peer victimization and internalizing problems in victimized youth.

Gender. Prior to discussing conceptual considerations about why boys and girls might evidence differential risk for maladjustment following victimization, it is necessary to review

empirical findings regarding peer victimization, gender, and adjustment. Extant work finds both similarities and differences in the peer victimization experiences of boys and girls. For example, though some studies have found that boys and girls experience similar rates of overt (or direct) victimization, the type of overt victimization might differ by gender. In some samples, boys report experiencing higher levels of physical victimization than girls, while girls report more verbal victimization than boys (e.g., Bevans, Bradshaw, & Waasdorp, 2013; Underwood, 2003). However, a recent study found no significant gender differences in the adjustment *consequences* of overt (e.g., physical, verbal) victimization (Carbone-Lopez, Esbensen, & Brick, 2010). In contrast, these authors did find significant gender differences in children's experience of indirect forms (e.g., relational, exclusionary) of victimization and their adjustment outcomes. Carbone-Lopez and colleagues (2010) reported that boys' indirect victimization was moderated by contextual (e.g., poverty) and demographic factors (e.g., age, race), whereas girls' victimization experiences were not moderated by these factors.

Further, Carbone-Lopez and colleagues (2010) reported that repeated indirect victimization had particularly detrimental effects for girls (e.g., more externalizing problems), whereas repeatedly victimized boys evidenced an inverse outcome (e.g., decreased drug use, less externalizing problems). The authors proposed that *repeated victimization in boys could limit their opportunities to engage with deviant peers; whereas for girls, experiencing repeated victimization could possibly "push" girls to connect with deviant peers*. Implicit here is the concept that school-age girls might be more likely to prioritize interpersonal relationships compared to same-age boys, thus being at greater risk for seeking deviant peer relations when rejected by their peer group. Thus, such findings have prompted authors to propose "that bullying may have a greater psychological impact on girls" (Carbone-Lopez et al., 2010, p. 344).

However, when comparing findings across studies, the field typically finds mixed results regarding gender differences on children's victimization and maladjustment, particularly with internalizing dysfunction. For example, Troop-Gordon and Ladd (2005) found that persistent victimization is predictive of lower self-worth and self-competence in boys—but this relation was not found in girls in their sample. Similarly, some studies find that bullying victimization is predictive of depressive symptoms in boys but not girls (Rothon, Head, Klineberg, & Stansfeld, 2011), while others find victimization predictive of depression only in girls (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Paul & Cillessen, 2007). McDougall and Vaillancourt (2015) suggest these mixed results are expected, given the wide variety of samples (e.g., ages, ethnic distribution) and methods (e.g., informants, measures, time range) used to measure victimization and its outcomes. Nevertheless, scholars have proposed different conceptualizations explaining how victimization could impact boys and girls differently.

Examining gender differences in peer victimization processes could help the field better understand the mechanisms of risk for victimized boys and girls. For example, Khatri, Kupersmidt, and Patterson (2000) found that increases in peer victimization during elementary school predicted feelings of unpopularity in girls but not in boys. *For girls, the experience of victimization might change their perceived social identity and construal of role within the peer ecology, whereas for boys that may not be as salient during the early elementary school years*. This may be particularly true for girls persisting as victims of overt aggression over time. Being both a girl and overtly victimized may increase the girl's risk for being targeted as a visible victim by the peer group. This, in turn, may signal to the victim that her experiences are atypical (e.g., the rate of overt victimization is typically higher for boys than girls), further negatively impacting her perceived social reputation and relations with peers.

Another potential risk difference could stem from *gender norm deviations in school-age children*. Perceived deviations from gender expectations could be highly detrimental to children's social standing. Research finds that "children who asserted their 'difference' and rejected and resisted gender norms were routinely targeted and articulated stronger feelings of marginalization than others" (Renold, 2004, p. 147). For example, while peers (and even adults) may expect boys to behave more impulsively and hyperactively, girls are typically expected to evidence greater behavioral and emotional control. Thus, research finds that deviating from this gender expectation might be particularly detrimental for girls. Specifically, research finds that girls who persist as victims tend to evidence greater impulsivity than girls that are non-victims or non-stable victims (Dempsey, Fireman, & Wang, 2006). Perhaps, girls who behave more impulsively are perceived to be engaging in gender-incongruent behaviors, placing them at risk for being targeted by peers. Problems in impulse control could also be reflected in difficulty regulating negative emotion and inhibiting negative arousal—again, problems which may yield behaviors (e.g., fighting, yelling) more typically expected from boys.

Another potential factor that could impact boys' and girls' risk differently is the process through which they relate to each other during early school years. Maccoby (1998) proposed the *two-culture theory*, which suggests that boys and girls typically self-select to interacting with same-gender peers during early elementary school. This "voluntary" segregation may lead to children developing uniquely distinct cultures. Underwood (2004) proposed that in the development of these unique cultures, girls and boys develop different perspectives of acceptable and unacceptable social behaviors, as well as conceptualizations of victimization. According to this theory, girls appear to focus more on interrelatedness and social connectivity than boys—

which could help explain why social exclusion and rejection may be so detrimental to girls during early elementary school.

Though research findings are mixed, studies suggest both girls and boys evidence risk for victimization and maladjustment. However, research often finds the detrimental effects of victimization greater for girls than boys. For example, Rigby (1999) found that high levels of victimization were predictive of poor physical health for both boys and girls, but only predictive of mental health dysfunction in girls. Further, girls persisting as victims over time are more likely to be hospitalized and receive pharmacological intervention for maladjustment, even when controlling for early psychiatric dysfunction (Sourander et al., 2009). Recently, Frederick and Demaray (2018) reported that the relation between depressive symptoms and suicidality was stronger for victimized girls compared to victimized boys. Though girls who evidence higher levels of victimization appear to be at particular risk, research typically finds greater prevalence of victimization in boys. Thus, regardless of gender, boys appear to evidence greater likelihood of experiencing victimization—placing boys at significant risk for negative sequalae. In summary, though boys and girls may evidence differences in peer victimization prevalence, types, and consequences, the field could benefit from continued exploration of conceptual rationale that might explain such differences.

Race and ethnicity. Research has also examined whether differences in peer victimization exist across different racial and ethnic groups (e.g., White American; Hispanic/Latinx; Black/African American), and whether these differences are associated with distinct adjustment outcomes. For example, some studies find that Hispanic youth report lower levels of victimization compared to Caucasian and African American youth (e.g., Hanish & Guerra, 2002; Juvonen, Graham, & Schuster, 2003). In attempting to interpret these findings,

scholars have proposed that cultural factors salient to the Hispanic and Latinx communities may play an important role in protecting Hispanic children from experiencing peer victimization to the same level as endorsed by other ethnic/racial groups. Such factors may include *personalismo* (e.g., having a personable-orientation; value of seeking interactions with those one has a warm and trusting relationship with; Davis Lee, Johnson, & Rothschild, 2019) and *simpatía* (e.g., cultural script in which one expects high frequency of positive social behaviors and low frequency of negative social behaviors; Triandis, Marin, Lisansky, & Betancourt, 1984). The Hispanic community also tends to ascribe to a *collectivistic* cultural orientation, which describes an interdependent self-construal of one's behavior and self-worth determined in reference to the norms of a valued group (Varela et al., 2019; Varela et al., 2004). Scholars propose that such cultural factors may protect Hispanic children from victimization or the negative consequences of victimization. Culturally-relevant mechanisms could also suggest other possibilities, including that Hispanic youth may: perceive peer interactions differently, underreport their victimization, miss cues that signal victimization, expect different forms of aggression than what typically is considered peer victimization, or even evidence subtler victimization behaviors.

However, the field finds mixed results related to ethnicity and victimization—suggesting a complex interrelation amongst individual and contextual factors. For example, in contrast to research suggesting Hispanic youth may evidence less victimization than other ethnic groups, other studies have found higher levels of victimization in Hispanic youth compared to other ethnic groups (Nansel et al., 2001). Other studies find no significant race or ethnic differences in victimization, while others find no significant differences among minority ethnic groups—such as Hispanic and African American youth in urban schools (e.g., Storch, Nock, Masia-Warner, & Barlas, 2003). Such mixed findings suggest it is necessary to examine contextual factors that

could influence the experience of victimization in different groups of children and explain differences found across samples (e.g., Graham, 2006; Graham, Taylor, & Ho, 2009).

Broadening the cross-cultural perspective, scholars have examined other cultural factors thought to play a role in peer relations and victimization. Soriano, Rivera, Williams, Daley, and Reznik (2004), in their review on key cultural concepts, highlighted the roles of *acculturation*, *ethnic identity*, and *bicultural self-efficacy* (i.e., capacity to accept one's cultural identity and belief that one can navigate effectively living within two groups without comprising one's cultural identity) in children's peer processes. Specifically, the authors reported the following trends in the literature: a) greater acculturation to the dominant culture predicts higher risk for aggression and maladjustment; b) lower bicultural self-efficacy predicts greater avoidance and negative attitudes toward peers from different ethnic or cultural groups; and c) greater sense of racial or ethnic identity appears to be a protective factor from maladjustment in ethnic minority youth, particularly in children part of the *numerically dominant group within their social context* (Soriano et al., 2004). Such findings highlight the complex factors that scholars must attend to when exploring peer victimization processes across different ethnic groups of children.

To further understand mixed findings across different samples, scholars have also begun examining classroom and school contexts that may increase risk for ethnic minority youth victimized by peers. For example, research has found that victims in classrooms predominantly comprised of same-ethnic peers are at greater risk for experiencing loneliness and social anxiety (Bellmore, Witkow, Graham, & Juvonen, 2004). Further, Bellmore and colleagues (2004) found a stronger relation between victimization and anxiety in classrooms in which aggression was less normative. Perhaps, experiencing victimization as a member of the numerically-dominant ethnic

group within a classroom with lower levels of victimization might represent greater deviation from the dominant peer group.

Such risk for maladjustment might be explained by the *social misfit hypothesis* (Wright, Giammarino, & Parad, 1986), which proposes that children who deviate from the norm (e.g., physical traits, behavior) are most likely to be targeted by victimization, social rejection, and exclusion. Thus, "ethnicity or race is often a visible characteristic that may become the target of peer aggression" in youth, given possible features (e.g., physical appearance, accent) that could "appear different from the norm" (Vitoroulis & Vaillancourt, 2015, p. 150). As such, children who perceive themselves—or are treated as—deviant from their peers might be at greater risk for negative sequela. This may be even more salient for children embedded in contexts in which they are part of the numerical majority. Deviating from the cultural majority already places youth at risk, and deviating from the norms of one's own ethnic group, even when part of the numerical majority, might further exacerbate that risk. Such children may internalize that their experiences are different from their same-ethnic peers, potentially engaging in self-blaming attributions for their experiences. This internalization of the victim role (and the accompanying maladjustment) might be exacerbated in children embedded in classrooms with less peer victimization because victimization itself is already perceived as deviant in these classrooms.

Summary. Research finds robust evidence that peer victimization is linked to children's maladjustment, whether through direct or indirect pathways, and is a significant predictor for children's internalizing risk (for a review see McDougall & Vaillancourt, 2015). Scholars have proposed conceptual frameworks (e.g., social ecological, information processing, culture-specific models) that may explain the relation between peer victimization and the development of internalizing maladjustment in victimized youth. Unfortunately, research is still lacking in

regards to the empirical evaluation of these models. Thus, there is limited consensus regarding which of these proposed mechanisms—among others not reviewed in this study—more accurately predict greater risk for child maladjustment. Therefore, a critical task for researchers is to distinguish between peer victimization experiences unlikely to pose significant risk for maladjustment from experiences strongly indicative of psychosocial risk absent intervention (Bowes et al., 2013). One possible approach to distinguishing more harmful from less harmful victimization is to examine more closely which *parameters* of peer victimization (e.g., duration, intensity) predict greater risk for internalizing maladjustment.

Current Study

In this study, I aimed to explore the pattern of relations between parameters of children's peer victimization experiences and their internalizing outcomes. To examine these relations, I first operationalized distinct parameters of victimization hypothesized to predict internalizing risk. Peer victimization parameters were indexed via victimization reports from children, teachers, and peers gathered at three time points within an academic year. At issue was whether these distinct indices of victimization would predict children's internalizing outcomes at the end of the academic year. The primary goal of this study was to extend the field's understanding regarding potentially key victimization parameters—such as the stability of children's victimization experiences—and their role in the development of internalizing functioning. Further, I sought to better understand whether these parameters provided differential predictive utility from each other, and if so, which parameters were most predictive of internalizing risk.

Conceptualizing the Peer Victimization Parameters for this Study

Prior to describing the study's primary aims and hypotheses, it is imperative to briefly discuss the parameters chosen for this study, and highlight how extant work guided their

development. Before generating the parameters, I reviewed the literature on: a) empirical findings regarding aspects of peer victimization found to be predictive of internalizing dysfunction, and b) conceptual frameworks and proposed mechanisms that might explain how victimization could impart internalizing risk to victimized youth. Thus, I used both top-down and bottom-up approaches to generate this study's parameters, index predictors, and hypotheses. Though not an exhaustive rendition of possible frameworks, here I briefly highlight some of the conceptual considerations that guided decisions of which parameters to include. For this study, I primarily reviewed *information processing* and *social ecological* frameworks that could explain the relation between victimization and internalizing maladjustment.

As discussed previously, children's *social information processing* about their victimization experiences can negatively impact their internalizing adjustment—particularly in children who endorse greater characterological self-blame. Self-blaming attributions may exacerbate negative cognitive and affective experiences, fostering shame, frustration, disappointment, and worry, and increasing risk for internalizing dysfunction. Since children's cognitive strategies (e.g., generating attributions) are linked to their internalizing functioning, it seemed essential to examine *children's self-reports* of victimization. Because children themselves are likely the only ones aware of the attributions they make following experiences of victimization, it was imperative to examine their victimization reports and the psychosocial outcomes predicted by self-report.

Further, studies report that greater involvement with victimization—regardless of its operationalization—typically reinforces children's maladaptive attributions, which further exacerbates risk for internalizing problems. Thus, I sought to examine whether greater victimization involvement was indeed an important factor in predicting internalizing

maladjustment by examining differences in the *mean level* of children's victimization experiences. Though child self-reports do not explicitly ask about the causal attributions children make following peer victimization, self-reports can provide insight into children's social cognitive processes—particularly in regards to children's perceptions of their roles within the peer ecology and the level of aggression experienced. It is likely that victimized youth are more "in tune" about their social experiences—having greater opportunity to gather data about their own experiences—compared to other informant sources like peers, teachers, or parents. However, comparisons of the predictive utility of multiple informant sources has been limited. Thus, generating a *mean level* parameter allowed me to explore whether children's self-reported victimization predicted internalizing dysfunction differently than victimization reports from *other informant sources*. If self-reports of victimization yielded better predictive utility for internalizing risk than other informant sources, findings would further support the idea that children's internal processes, such as their social information processing, might be crucial in determining risk for internalizing dysfunction.

From an *attributional style lens*, youth who trend toward negative attributional bias—particularly depressive bias—are more likely to attribute repeated interpersonal failures (e.g., peer victimization) to internal, global, and stable causes, which places them at risk for the development of internalizing problems. A pessimistic bias increases children's risk for blaming themselves about what happened when experiencing negatively-valanced interpersonal interactions, and for ascribing social success to external factors when experiencing positive peer interactions. This pattern of thinking, over time, erodes children's perceived competence, confidence, esteem, and worth—factors innately tied to the development of internalizing maladjustment. Thus, children who trend toward perceiving victimization to be their fault are

more likely to evidence a stronger response (e.g., psychological, affective) to victimization, placing them at risk for subsequent psychopathology.

Interesting here is the implication that perhaps, victimization need not be experienced (or experienced at the level perceived by the victim). Children at greater risk for internalizing dysfunction may be those who perceive their interpersonal experiences to be negative, regardless of the accuracy of this perception. Thus, children who tend to perceive themselves to be failing at social relations, misattribute peers' intent, or perceive negative interpersonal experiences to be worse than they actually are might also be more likely to *self-report* elevations in their victimization experiences compared to other informants. This attributional style processing, paired with the tendency to belief that victimization and other negative peer experiences are unlikely to change, might exacerbate these children's risk for internalizing dysfunction. To begin exploring whether children might perceive (and potentially misattribute) their victimization experiences to be different than what might actually be happening at school (and whether perceptual differences were contributing to maladjustment), it was necessary to compare self-reports to *peer-* and *teacher-reports* of victimization. Thus, if neither peer nor teacher sources rate a child as victimized, yet the child self-reported elevated victimization, it is possible that the child might be experiencing a negative bias in their interpretation of their social experiences. Alternatively, this same child could actually be experiencing elevated victimization, and other informant sources simply might not acknowledge these experiences are happening or might be unaware of their occurrence.

The *theory of learned helplessness* explains how repeated, enduring negative experiences that an individual can neither control nor escape from can lead to helplessness, internalizing maladjustment, and depression. Assuming learned helplessness is an accurate conceptualization

of a mechanism linking peer victimization and internalizing problems, I would expect that the parameter most predictive of internalizing dysfunction would be the *stability* of victimization experiences. Specifically, the model suggests those unable to escape their negative circumstances are at greater risk for developing internalizing problems. This limited capacity to escape a negative circumstance might imply two primary risk factors: a) children who persist as victims over time are at great risk; and b) it is likely that the situation is difficult to escape because the child is perceived to be a victim by the broader peer group and is visibly targeted as a victim. The former suggests that to explore this concept it is important to examine children's victimization over time (or at minimum across multiple time points). This model suggests that the key mechanism to maladjustment might be the chronic nature of these experiences, prompting me to examine whether the *stability* of self-reported victimization over the course of an academic year impacted children's internalizing functioning. The latter suggests that the more visible a negative experience is, the greater difficulty a child might have in escaping it (e.g., reputational biases might be difficult to change if others, particularly peers, perceive a child to be the one who is a victim). As such, this prompted me to examine other informant sources' victimization reports (*peer, teacher*) across the academic year, particularly focused on the stability of these reports and their respective risk for predicting maladjustment. Moreover, the possibility that visible, difficult to escape victimization could yield worse outcomes than less noticeable victimization prompted me to examine whether greater *cross-informant agreement* (e.g., do both teacher and peer informant sources report that a child is evidencing elevated victimization?) was predictive of internalizing maladjustment.

Similar to the learned helplessness model, the *victim schema* model proposes that victimization experiences themselves predict changes in children's attributions about their social

ecology, their social standing and role within that ecology, and the likelihood that they will be targeted for victimization in the future. This model supports the concept that enduring victimization is likely to predict greater adoption of a victim role, which influences both future behavior and the development of internalizing dysfunction. The *victim schema* model supports examining reports of victimization—particularly self-reports—over time. Specifically, this model prompted me to examine different levels of *stability* of victimization experiences. For example, if the victim schema model provided a relevant mechanism for victimization processes, I would expect that children whose victimization experiences are increasingly elevated and remain persistently elevated, are also more like to self-report as victims (potentially in adopting a victim schema). Thus, this prompted me to examine whether children who meet elevated victimization across *2 or 3 time points* evidence worse internalizing maladjustment than those at only *1 time point*. The rationale behind this is that more stable victimization elevation over time provides victimized children greater opportunity for developing a victim schema.

Social ecological models describe a variety of nested internal and environmental systems that could activate risk for maladjustment when children are exposed to peer victimization. According to *biopsychosocial models*, evidence suggests that social exclusion, victimization, and rejection can activate neurological pathways of pain—particularly in instances of social humiliation. As noted earlier, shame and embarrassment might result from perceiving a social failure in the context of peers. Thus, the implication here is that children who are visibly rejected and victimized might be experiencing significant distress through the course of an academic year. This prompted me to focus on examining *peer-reported* and *teacher-reported* nominations of children's victimization. Thus, greater number of nominations from other informant sources might suggest greater visibility of child being victimized by peers. Implicit here is that the more

visibly victimized a child is to his or her peers, the greater likelihood they might experience shame and associated psychological processes—and subsequently the emotional pain associated with social exclusion.

Further, biopsychosocial models suggest that children exposed to longer term adversity evidence changes in the immune and endocrine systems—placing them at risk for a plethora of maladjustment outcomes. However, it is unclear whether these changes are influenced by the duration or severity of adverse experiences. Thus, comparing the *stability* to the *mean level* of victimization across a school year could help provide insight as to which parameter is more predictive of maladjustment. This comparison (stability versus mean level) would provide information on whether more intense victimization experiences (captured by mean level parameter) are more predictive of maladjustment than stable experiences, or vice versa. Such findings could inform which direction to continue exploring the biopsychosocial vulnerabilities conferred to victimized youth—such as focusing on the biophysiological changes experienced as a function of chronicity or severity of victimization.

According to the *peer context*, children with low social preference are at greater risk for experiencing maladjustment. Thus, it is likely that peers who report disliking a particular child might be more likely to identify that same child as experiencing peer victimization. *Peer-nominated* victimization could reflect a number of factors that place children at risk for negative sequela. Specifically, high number of peer nominations of victimization could reflect that the child: a) is not well-liked by peers; b) engages in behaviors that peers find annoying or unpleasant; c) has poor social standing and lacks social resources; d) has low positive social reputation; e) displays characteristics that make him or her an "easy" target; f) evinces limited opportunities to practice prosocial skills; g) is isolated from peers and may lack protective

friendships; and/or h) may deviate from peer norms. Thus, understanding how peers perceive children and determine who is victimized by others is integral to examining how the peer context influences children's risk for internalizing dysfunction. This prompted for a comparison between *peer, teacher, and self-reports*—given the potentially unique perspectives each has on victimization processes. Determining which informants' reports are most predictive of internalizing dysfunction is crucial in understanding mechanisms that place children at risk.

Some scholars have proposed that transitory victimization experiences pose minimal risk for maladjustment. However, this notion prompted me to examine whether *single-time point elevations* predicted internalizing risk at the end of the school year. Implicit here is that if a single-elevation at the beginning of the school year is predictive of internalizing problems absent reported victimization across the other time points, it is possible that the experience activated an internal biopsychosocial vulnerability—*à la* diathesis-stress process. One way to examine this would be to compare high severity scores across the three time points to determine which one is most predictive of internalizing risk. Given work suggesting high visibility of social marginalization and victimization might be detrimental to youth, I considered how multiple informants agreeing at a single time point that a child was experiencing victimization could be construed as severe victimization. Thus, I chose to also examine *cross-informant concordance* to explore how visibly elevated victimization at each time point predicted end of the year's internalizing functioning.

In summary, I was guided by conceptual frameworks to identify parameters that could predict internalizing risk. As a caveat, the conceptual frameworks reviewed in the introduction served only as guidance in the choice of parameters operationalized in this study. However, the nature of the study (e.g., sample used, data extracted from a broader prospective project; scope of

current study) limited the investigative team's capacity to *a priori* gather data to directly test the conceptual frameworks.

Describing the Peer Victimization Parameters in this Study

In addition to exploring conceptual considerations, I looked to both the early childhood adversity and bullying/peer victimization literatures to review key parameters that had been examined in previous studies. Though more parameters were reviewed in the introduction, for the purposes of the current study, I decided to focus on four specific parameters of interest. Specifically, I generated distinct parameters from self-, teacher-, and peer-reports of victimization across three time points within an academic year. From these data, I derived two types of parametric indices: *mean level* and *threshold-specific*, with *informant-specific predictors* as a subtype within the other parameters. Below, I briefly described these parameters prior to delineating my aims and hypotheses.

Mean level indices. Many studies examine the *level* of children's victimization experiences when determining whether children deviate from their peers and appear to be at risk relative to others within their context (e.g., class, grade, school). Though level has been operationalized differently across studies, it typically attempts to capture the extent to which victimization is harmful—with studies often focusing on the frequency or intensity of victimization experiences. Further, scholars have increasingly recommended that to better assess children's risk for victimization and its negative sequelae, a multi-wave assessment approach is preferable. This allows researchers to more accurately examine whether children are, on average, victimized at higher levels over time. Thus, mean level indices focused primarily on the question: does children's mean (i.e., average) victimization over the span of an academic year predict their internalizing outcomes at the end of the same school year?"

Mean level indices were composite continuous scores generated from informant-specific mean standardized victimization scores across the three time points. Further, researchers have recommended examining different informants' victimization reports, as they might yield unique perspectives on children's victimization experiences. In this study, mean level indices were: a) *Mean Level-Self* (mean victimization frequency across three time points for child informant); b) *Mean Level-Teacher* (mean victimization frequency across three time points for teacher informant); c) *Mean Level-Peers* (mean number of peer-reported victimization nominations across three time points).

Threshold-specific indices. Though many studies have examined children's level of victimization to determine internalizing risk, other studies have examined whether children that meet a particular victimization *criterion* or *cut-off* evidence increased risk for maladjustment. As such, threshold-specific indices aimed to answer the question: does meeting or surpassing a *threshold* in victimization elevation for a given parameter (e.g., stability) predict internalizing maladjustment? Threshold-specific indices differed from mean level in that instead of focusing on average victimization level throughout the school year, threshold-specific indices sought to identify—within a specific informant and time point—whether a child met an elevated criterion, and then using these to construct latent variables comprised of combinations of these variables. Specifically, threshold-specific indices were constructed from standardized peer victimization mean scores dichotomized into two groups (*elevated, not elevated*). Elevated scores were scores greater than or equal to 1 *SD* above the mean. Threshold-specific indices were: a) *Stability* (number of elevated victimization scores within same-informant across three time points); and b) *Cross-Informant Agreement* (number of different informant sources reporting elevated

victimization scores within same-time point). Each threshold-specific index was comprised of three factors: *Stability* (self, teacher, peer) and *Cross-Informant Agreement* (T1, T2, T3).

Informant-specific predictors. Though some studies have examined differences between informants' peer victimization reports, not many have compared all three distinct informant sources (self, teacher, peers) in predicting internalizing maladjustment in victimized children. Thus, informant-specific predictors focused on the question: Are some informants' peer victimization reports more predictive of internalizing outcomes than other informants' reports? Across both mean level and threshold-specific parameters, I generated informant-specific predictors (except for *Cross-Informant Agreement* indices, since this parameter required exploring elevations in victimization across multiple informants within a single time point). For example, for the *Stability* parameter, I generated indices for each informant source (*Stability-Self, Stability-Teacher, Stability-Peer*). By generating these, I had the opportunity to compare how distinct informant sources predicted internalizing dysfunction in each parameter.

Aims and Hypotheses

In this section, I described the primary aims of the study. Though some of the aims were generative (e.g., generating parametric indices of peer victimization) or exploratory, the majority of the aims were predictive. For the predictive aims (and some exploratory ones), I provided hypotheses for the expected relations amongst key variables in the study. These hypotheses were typically grounded in both conceptual considerations for hypothesized mechanisms and in empirical findings from the literature. Hypotheses were described after their respective aims.

Aim 1. To operationalize key peer victimization parameters, and generate indices that might predict children's internalizing experiences. The purpose of this aim was to generate a set of indices that would allow for comparing different parameters of peer

victimization as predictors of internalizing risk. For a complete description of how indices were operationalized, refer to the Methods. For the indices' summary statistics (e.g., frequency, central tendency, refer to the Results.

Aim 2. To explore the relations amongst the peer victimization parametric indices generated for this study. Given previously described limitations in comparing parameters across studies (e.g., limited consensus in operationalization of parameters; different methods and samples used), I sought to examine the relations among indices using one sample of 4th grade children within a school district. This allowed me to explore the relations among three distinct parameters with less variance otherwise found across studies—for example, the sample source, grade range, and timing of assessment for this study was the same when constructing the indices. Evaluating the relations among indices also gave me the opportunity to examine whether these constructs were related. For example, researchers have typically used stable (e.g., persistent, repeated over time, chronic) and frequent victimization as interchangeable concepts. However, it is possible that stability and level—though related—might be distinct constructs from each other.

Aim 2 - Hypothesis 1: The parametric indices would be positively correlated with each other. Though the indices are comprised of combinations of factors, higher scores reflect greater involvement in victimization, regardless of the operationalization. Thus, I expected that all the indices would be positively correlated with each other at the statistically significant level. However, given the different conceptualizations of risk potentially captured by different indices, I expected that there would be a wide range of positive relations among the indices, with some evidencing significantly stronger positive relation than others.

Aim 2 - Hypothesis 2: Same-informant indices would be more highly correlated with each other than to other indices. This relation was hypothesized because of both conceptual and

methodological considerations. For example, I expected that *Mean Level-Self* and *Stability-Self* would be more highly correlated with each other, than *Mean Level-Self* or *Stability-Self* would be to teacher-, peer-, or cross-informant indices. Given extant work finding distinct informant sources typically yield unique perspectives on childhood phenomena, I expected same-informant indices to yield greater relations to each other compared to other informant sources. Conceptually, I also expected children stably victimized over time would be evidencing greater mean levels of victimization. Further, I expected that same-informant indices would be more closely related to each other than to cross-informant indices. Same-informant indices were generated from data from the same informant assessed at three time points. In contrast, cross-informant indices were generated from three distinct informant sources' data at each individual time point—thus yielding different data compared to same-informant indices.

Aim 2 - Hypothesis 3: Cross-Informant Agreement-T3 would be more strongly correlated with other indices than Cross-Informant Agreement-T1 and Cross-Informant Agreement-T2. I hypothesized this relation for a number of reasons. For example, in the operationalization of *Stability*, higher scores reflect longer-term involvement in elevated victimization, with the highest score requiring stable elevation at all three time points. Thus, I predicted that children whose victimization experiences are more visible to the peer group and teachers by T3 have had longer term involvement with victimization over the school year, enough to develop a reputation as the victim, as well as possibly have internalized their victim role. I assumed that at T1, when children are still beginning to navigate their peer experiences, victim roles and reputational biases, among other factors, have not yet been fully engrained into the peer ecology, thus likely yielding a greater variability in cross-informant agreement about victimization experiences. I expected the same with T2—there is still more than half the year

until T3 for children to go in or out of a victim role. By T3, I expected relations to have solidified and there be greater agreement amongst informant sources at the end of the school year, increasing the likelihood that *Cross-Informant Agreement-T3* would yield stronger positive correlation to other indices.

Aim 3. **To generate T3 single informant (self, teacher, peer) victimization scores, and examine them as "default" comparisons in predicting T3 internalizing outcomes.** These T3 victimization scores, and in particular self-reported victimization, were conceptualized as the most likely to provide highest predictive utility when regressed on T3 internalizing functioning. I expected this relation given both empirical and conceptual considerations. As noted previously, by the end of the school year, children have had an opportunity for their social reputation and interpersonal experiences to have stabilized. That is, children have had a year to: navigate their social world, develop reputations within their peer ecology, have a reputation in the eyes of their teachers and other adults, and developed schemas about their social identity. Thus, I considered that children at T3 would be more accurate reporters of their social experience—as they have had an academic year to make attributions, determine their role, practice skills, and receive confirmation from their social context about "who they are." Further, for children who have been victimized during the academic year, they have had greater opportunity to experience more victimization over this span, which increments their risk for maladjustment according to extant work.

Further, I have to acknowledge shared method variance, which includes shared timing, method, and informant (e.g., internalizing functioning was assessed via child self-report during the same assessment wave) as an explanation to why T3 scores would yield a better comparison than T1 or T2 scores. The idea behind these analyses was to establish a "default" model similar

to commonly-used methods of assessing peer victimization experiences, such a single time-point assessment of self-reported or teacher-rated peer victimization experiences (e.g., Gregus et al., 2015; Pastrana et al., 2018). Thus, having a default model would allow for later comparison to the generated parametric indices, and an examination as to whether these indices provided better or worse predictive utility for children's internalizing maladjustment compared to the "default" model.

Aim 3 - Hypothesis 1: Single informant T3 victimization scores (T3 Mean) would positively predict T3 internalizing outcomes. This hypothesis was based on various factors, including temporal proximity (internalizing outcomes were gathered during same gradewide assessment wave as T3 self-, teacher-, and peer-reported victimization). Further, I expected that children elevated in victimization at T3 would be either those whose victimization has increased throughout the school year (or has remained stable form early in the school year). Thus, this suggests increased opportunities for the development of a victim schema, learned helplessness, or distortions, or decreased opportunities to practice skills necessary to navigate interpersonal relations, among other factors. Perhaps, those that evidenced elevated victimization at the beginning of the school year but managed to escape victimization (or the perception of being a victim) would not present as victimized at T3, thus reducing risk for internalizing maladjustment. Overall, I expected that at T3, children evidencing the greatest victimization amongst their peers would evidence significant internalizing maladjustment, regardless of informant source. In other words, all three informant sources' T3 mean victimization scores would be predictive of internalizing dysfunction.

Aim 3 - Hypothesis 2: T3 Mean-Self would evidence the highest predictive utility of all T3 predictors, serving as the "default" predictor to which other indices will be compared to.

Given evidence indicating the importance of internal information processing in victimization, as well as intrapersonal vulnerabilities that may be invisible to other sources, I believe that children's perceptions of their peer victimization experiences would be most predictive of internalizing risk. This expectation is particularly true for internalizing outcomes, given the internal nature of the maladjustment. For a child who has experienced frequent or more intense victimization at the end of the school year, I expect that the proximity of such experiences would be predictive of internalizing problems. Whether sustaining victimization over time, or recently being targeted as a victim—regardless of whether the victimization is observed or perceived—children reporting high victimization at this point of the year appear to be at an inherent disadvantage. Not only are they unlikely to have enough time to change their reputation, but they will leave the grade rating themselves as children who experience victimization. Thus, greater peer victimization at the end of the school year might reflect a number of risks—including limited opportunity to change their social reputation amongst teachers or peers (as the school year is ending), potentially long-term involvement with victimization (e.g., highly victimized children at T3 might have stably or increasingly experienced victimization throughout the school year), or confirmation of their victim schema (e.g., peers target me as a victim, therefore I must be a victim).

In reviewing the link between internal mechanisms, such as attributions, and their role in internalizing dysfunction, it is apparent that internal processes are crucial in the development of internalizing psychopathology. Social ecological models tend to support these ideas as well, typically noting the importance of internal processes in influencing the cognitions, emotions, and behaviors that follow—and their subsequent bidirectional effect these have on the environment. Of import here is that regardless of etiology, single time-point self-report is likely to yield the

best predictor for internalizing maladjustment compared to other informant sources. Thus, children who self-reported greater victimization at T3 would be at greater risk for also reporting greater levels of internalizing problems. If the target outcome explored in this study was externalizing dysfunction, I would predict that other informant sources might provide greater utility in predicting externalizing maladjustment (i.e., given the interpersonally disruptive and typically visible negative behaviors associated with such problems).

Aim 4. **To evaluate whether the peer victimization indices predicted children's T3 internalizing outcomes; to examine the indices' predictive utility; and to compare the indices' predictive utility to the default model (*T3 Mean-Self).*** For Aim 4, I sought to explore the predictive relation between the parametric indices and internalizing outcomes. Further, I aimed to compare the peer victimization indices' patterns of variance explained and magnitude of effect to each other. Finally, this aim sought to explore whether the indices could provide comparable—or improved—predictive utility compared to the default T3 single time-point predictor (*T3 Mean-Self*).

Bivariate prediction. I first explored whether the indices would be predictive of internalizing dysfunction at the bivariate level.

Aim 4 - Hypothesis 1: The peer victimization indices would be positively related to children's T3 internalizing outcomes. The idea behind this hypothesis is that all of the parameters were chosen because of conceptual and/or empirical support regarding their plausible predictive capacity for internalizing problems. Studies have found that exposure to victimization increase children's risk for maladjustment compared to non-victimized peers. Thus, higher levels of victimization across these indices are likely more robust predictors of internalizing maladjustment (e.g., higher *Mean Level* scores predicting greater internalizing problems than

lower *Mean Level* scores; elevated victimization across 2 or 3 time points is likely predictive of greater maladjustment than evidencing elevations in victimization at only 1 time point). A more novel question is whether the indices predict risk differently.

Aim 4 - Hypothesis 2: Stability-Self would yield the highest overall predictive utility among all indices. For children persisting as victims over time (*Stability-Self* index), long-term exposure to victimization could yield increased risk for maladjustment through a number of hypothesized mechanisms. Specifically, persistent victimization throughout the school year could lead to the exacerbation of maladaptive characterological self-blaming attributions, the development of learned helplessness, or the adoption of a victim schema, all which are predictive of internalizing maladjustment (e.g., depression, anxiety). Further, prolonged victimization over the course of the year could increase risk for dysfunction via changes to biological processes (e.g., neuroendocrine system) which have been shown to be impacted in youth exposed to prolonged adverse experiences and predictive of maladjustment. Moreover, elevated victimization throughout the span of the school year could limit children's opportunities to perceive success in navigating successful interpersonal skills, to develop protective friendships, or to escape from aggression by peers. These factors would likely be detrimental to children's self-esteem, failure resignation, rumination, withdrawal, or worthlessness—constructs linked to the development of internalizing problems. Given extant literature, conceptual and empirical evidence supports that enduring victimization might be most predictive of internalizing risk.

Further, a number of other factors played a role in this hypothesis, including: a) shared method (e.g., same informant [self] across both victimization and internalizing measures); b) the intrapersonal nature of internalizing functioning; c) the limited information regarding internalizing functioning that other informants [teacher, peers] may have access to; and d)

criterion rigor (e.g., children had to meet a threshold of elevation in self-reported victimization [scores ≥ 1 *SD*], and were assigned values [0 – 3] depending on the number of time points in which they met or surpassed this threshold, setting the elevated stability threshold [3] as a rigorous criterion compared to other indices). Thus, I predicted that out of the *Stability* indices, *Stability-Self* would be most predictive of internalizing dysfunction.

Aim 4 - Hypothesis 3: Stability-Self, Mean Level-Self, and Cross-Informant Agreement-T3 would yield greater predictive utility for internalizing maladjustment at the end of the school year than the comparison T3 Mean-Self predictor. As discussed previously, meeting elevated criteria for *Stability-Self* is a rigorous benchmark that identifies children who self-report as victims throughout the course of a school year. Thus, children meeting this criterion are likely at risk for the enduring sequela associated with enduring peer victimization. Children who evidence elevations in T3 Mean predictors could be transitory victims (spiking in victimization at this time point) and may not necessarily be at risk for the same dysfunction than youth evidencing elevated victimization over an 8-month span.

Similarly, elevated *Mean Level-Self* requires greater victimization frequency throughout the year, so I expected that this criterion would yield higher predictive utility than a single time-point assessment. This hypothesis is supported by data suggesting that level of victimization is typically positively predictive of internalizing dysfunction. Exposure to greater victimization frequency is conceptually linked to the likely development of negative affective and cognitive states (e.g., frustration, anger, worry, rumination) and accompanied by hopelessness, avoidance, and failure resignation—these typically manifest into internalizing dysfunction (or aggression and externalizing problems which have also shown to be linked to long-term internalizing maladjustment in victimized youth). Higher levels of victimization over the span of a school year

imply that children might be experiencing more severe, intense, or frequent victimization—probably across more than one time point. Even if elevations in victimization are found in only one time point, these must be significantly high to yield a high mean victimization score. Thus, victimization that is either severe or long-lasting is likely to be more predictive than victimization that is elevated—presumably—at only one time point.

Finally, I expected that elevated *Cross-Informant Agreement* (2 or 3 distinct informant sources agreeing on victimization at a single time point) would yield greater predictive utility than a single informant at one time point, since elevations in this index require multiple informants during the same time point to agree that a child is experiencing victimization. The hypothesis for *Cross-Informant Agreement* is supported by research finding that more visible victimization—particularly one in which different sources confirm the veracity of a child's perceived victim role—is associated with greater dysfunction in intrapersonal and interpersonal functioning. Given that at T3, informants have had more time to observe victimization over the school year and for social reputation to become entrenched—I hypothesized that *Cross-Informant Agreement-T3* would yield greater utility than the default comparison (*T3 Mean-Self)* that only considered elevations from one informant source.

Multivariate predictions. For a more accurate exploration of the unique impact of the victimization indices on T3 internalizing scores, I controlled for baseline internalizing functioning (T1).

Aim 4 - Hypothesis 4: Variance explained by the indices in predicting T3 internalizing outcomes would be reduced, but the indices would still be predictive of internalizing maladjustment. Specifically, I expected that T1 internalizing scores would be highly predictive of T3 internalizing outcomes, thus significantly reducing the predictive capacity of the

parametric indices on the internalizing outcomes. However, I did expect that some of the indices, even when controlling for baseline internalizing symptoms, would still significantly predict T3 internalizing dysfunction. Thus, victimization was expected to still have a uniquely negative impact on children's internalizing functioning otherwise not captured by only assessing internalizing maladjustment at baseline. The idea here is that elevations in peer victimization—even when controlling for internalizing functioning at the beginning of the school year—influence the development of internalizing maladjustment.

Aim 4 - Hypothesis 5: Stability-Self, Mean Level-Self, and Cross-Informant Agreement-T3, would yield the highest predictive utility within their index categories and would provide comparable predictive utility to T3 Mean-Self. I expected that when controlling for T1 internalizing scores, self-reported victimization (*Stability, Mean Level*) would yield greater predictive utility for child internalizing outcomes than peer- or teacher-reports. Given previously discussed reasons, I expected self-reports of victimization to be most predictive of internalizing risk. Even when controlling for baseline internalizing reports, data captured by self-reports could be indicative of a variety of individual mechanisms that could impart risk for exacerbating problems with symptoms of anxiety or depression at the end of the school year. For example, the possibility that attributions could play a significant role in internalizing maladjustment can only be captured via self-reports; similarly, with other concepts such learned helplessness or victim schema model. Further, if biopsychosocial vulnerabilities, such as experiencing emotional pain when rejected or experiencing physical changes as a function of victimization, play an important role in the manifestation of internalizing problems, assessments of self-reported victimization are more likely to capture these factors. For example, I would not

expect peers or teachers to be accurate reporters of children's level of emotional pain, or whether victims are experiencing internal changes to stressful experiences.

Out of the *Cross-Informant Agreement* indices, I expected T3 to be most predictive of internalizing dysfunction. Elevations in *Cross-Informant Agreement* reflect greater visibility of children's victimization as being a problem. If a child scores high in this parameter, it suggests that more than one informant source is reportedly perceiving this child is experiencing victimization. Recent evidence suggests that children evidencing a problem that is more visible to others might place children at greater risk, particularly if the visibility reflects more harmful and overt forms of victimization. Further, visible victimization may reflect actual experiences of victimization (since more than one informant is observing these experiences), rather than perceived victimization (which might be endorsed only in self-reports of victimization). However, even if multiple informant sources converge on the perception that a child is evidencing peer victimization, these experiences might be transitory and not endure over the course of a school year. Thus, I expect *Cross-Informant Agreement-T3* to yield greater predictive utility for internalizing maladjustment than T1 and T2 indices. Even if the experiences are transitory at T3, such convergence at the end of the school year is likely reflective of a number of problems, such as: shame and embarrassment that might follow visible exclusion and victimization; limited opportunity to make protective friendships; problems with social reputation and acceptance; deviancy from norm expectations; behaviors that invite or exacerbate victimization; among other mechanisms. Finally, the question is whether elevations at one time point (of relatively robust threshold for victimization, since elevations require agreement across more than one informant source) are more problematic than elevated mean level or stability of victimization over the span of an academic year.

***Aim 4 - Hypothesis 6: Stability-Self would yield most robust predictive utility among all index predictors*.** Given previously discussed mechanisms, I expected this predictive relation, especially considering both direct and indirect pathways that could be activated in cases of prolonged exposure to victimization. The conceptual frameworks reviewed provide a compelling argument to expect *Stability-Self* to be the best hypothesized predictor. For example, extant evidence suggests that prolonged victimization is highly predictive of problems with depression or anxiety symptoms. Children stuck as victims over time are likely to evidence the cognitive and affective changes that come from believing that escape from victimization is possible, as well as the adoption of the role as victims. In other words, I strongly believe that the learned helplessness and victim schema models are mechanisms that might explain the development of internalizing dysfunction in children.

Evidence also suggests that prolonged victimization is more likely to activate problems with biopsychosocial functioning and the body's capacity to process stress adequately. This stems from findings suggesting that though transitory adverse experiences are likely to predict hyperactivity of the body's stress-response system, long-term more chronic experiences of stress and adversity are consistent with blunted HPA-reactivity—which is predictive of greater maladjustment than neutral or even hyperactive HPA functioning. Research finds that long-term changes to stress-response functioning can have a real negative impact on children's health, as well as their psychosocial functioning, particularly with internalizing concerns.

Further, evidence suggests that long-term exposure to victimization is predictive of health problems—which may increase the likelihood that victimized youth experience distress about their overall school and social experiences. Thus, if children exposed to long-term victimization are also endorsing health problems or evidencing increased absences associated with feeling

sick, they may be more likely to experience: limited opportunity to practice positive prosocial skills and develop meaningful peer relationships; feeling disproportionately targeted by peers when present at school; difficulty managing the emotional burden of somatization and physical health symptoms; avoidance to school, especially if feeling sick often; thinking they are different and feeling isolated from peers; academic disadvantages that might exacerbate characterological self-blame about their performance; limited capacity to perform in normal tasks (e.g., physical education activities, participation in club sports) that might increase risk for rejection and victimization; among other possible mechanisms.

As noted previously, the literature suggests that self-reports might be most predictive of internalizing dysfunction. Of the self-reported victimization predictors, examining individual scores at each time point would not account for the possibility that elevations could be transitory—which may not be conducive to the same adjustment outcomes as prolonged victimization. Thus, I did not expect *T3 Mean-Self* to be a greater predictor for internalizing concerns compared to elevations in *Stability-Self* at the threshold of elevated across *2 or more time points.* Further, when comparing mean level and stability, stability is a more stringent threshold to surpass, making it a more robust predictor. Mean level self-scores point to the level of victimization that a child experiences over the span of a school year. Higher self-reported *Mean Level* scores reflect endorsement of more frequent victimization over the span of three time points. However, high scores might be skewed by great elevations at 1 time point (e.g., T1), and may not necessarily reflect long-term exposure to victimization experiences. Thus, I expected *Stability-Self* to reflect the most robust predictor of internalizing maladjustment in victimized youth.

Aim 5. **To examine whether gender and race/ethnicity moderated the relation between peer victimization indices and internalizing outcomes**. My final aim was to examine whether demographic factors moderated the relation between peer victimization indices and internalizing functioning. For the demographic variables in this study, I focused solely on boys and girls for gender; and Non-Hispanic White and Hispanic/Latinx for race/ethnicity. I first examined the main effects of gender and race/ethnicity on victimization and internalizing outcomes. Given evidence suggesting that the relation between victimization and adjustment might differ based on different demographic factors, the purpose of these analyses centered around exploring whether elevations in victimization indices yielded differential internalizing outcomes depending on whether children identified as boys or girls, or Hispanic or non-Hispanic White. For analyses yielding significant interactions, I post-hoc probed the interactions.

Aim 5 - Hypothesis 1: The main effect of gender would be a significant predictor of internalizing maladjustment, with girls evidencing greater internalizing problems at T3. Given significant evidence suggesting that girls are at greater risk for internalizing problems (Kistner, 2009), I expected that gender would predict internalizing maladjustment, and that girls would be at significantly greater risk than boys. Though the research on gender and peer victimization is mixed, work suggests that girls evidence a number of vulnerabilities that exacerbate their risk for internalizing problems. For example, studies have reported that in their respective samples: internalizing problems tend to follow increases in relational victimization in girls (Murray-Close, Ostrov, & Crick, 2007); twice as many girls as boys evidence elevated stable victimization (NICHD Early Child Care Research Network, 2004); and internalizing problems tend to persist even after victimization has ceased in girls (Vaillancourt, Brittain, McDougall, & Duku, 2013).

Given such findings, along with the reviewed conceptual mechanisms, I expected girls to evidence greater problems with internalizing functioning.

Aim 5 - Hypothesis 2: Gender would moderate the relation between internalizing problems and the following parameters: informant source and cross-informant agreement. I expected that gender would moderate the relation between informant source of victimization and internalizing dysfunction. Specifically, I hypothesized that for peer-reports, girls who evidenced higher scores, would evidence significantly higher scores in internalizing functioning. Given extant work suggesting that peer relations and interpersonal bonding are crucial processes to the development of healthy functioning in school-children (though significantly more salient for girls than boys), I expected that elevated peer-reports of victimization would reflect more detrimental victimization for girls than boys. However, I did not have any *a priori* hypotheses to expect gender to moderate the relation between self- or teacher-reports of victimization—regardless of whether stable or mean level parameters—and internalizing maladjustment.

I also considered that gender might moderate the relation between elevated cross-informant agreement (i.e., meeting or exceeding threshold for more than one informant) and internalizing outcomes. Specifically, given that boys are more likely than girls to experience peer victimization, particularly more overt forms of aggression (e.g., Nansel et al., 2001), the experience of more visible victimization might be considered deviant for school-age girls. Considering evidence suggesting that deviancy from the norm might be most problematic for girls—especially when considering peer relation processes—I hypothesized that girls evidencing higher elevations in *Cross-Informant Agreement* scores would also be more likely to evidence internalizing maladjustment than boys.

Aim 5 - Hypothesis 3: The main effect of race/ethnicity would be a significant predictor of internalizing maladjustment, with Non-Hispanic White evidencing greater internalizing problems at T3. Given previous studies finding Hispanic youth tend to report less peer victimization experiences than Non-Hispanic White youth, I hypothesized that the main effect of race/ethnicity would be significant, with Hispanic children evincing less victimization than Non-Hispanic White children and therefore fewer internalizing problems. As previously noted, there is work indexing that Hispanic youth are less likely to report victimization, and there might be some cultural considerations (e.g., *familismo, simpatía*) that could play a role in Hispanic youth endorsing less victimization (and subsequently less internalizing problems) than Non-Hispanic White youth.

Aim 5 - Hypothesis 4: Race/ethnicity would moderate the relation between peer victimization and internalizing functioning. Though I expected Non-Hispanic White youth to evidence greater risk for victimization and internalizing problems, I expected that elevated victimization would have a greater impact on Hispanic youth than Non-Hispanic youth. Evidence suggests that youth from non-majority racial and ethnic groups might already experience a social disadvantage within their social ecology, both from a cultural and numerical standpoint. Thus, I expected that children from non-cultural majority groups that are victimized, rejected, or ostracized might be at significantly greater risk for internalizing maladjustment. Elevated victimization in Hispanic youth may reflect: greater perceived deviancy from the peer norms, which is associated with greater dysfunction; greater difficulty adjusting to social setting; racially, culturally, or language-motivated peer aggression; exacerbation of characterological attributions (e.g., "I am bullied because I am different"); or even greater acculturation to the mainstream culture (which extant work suggests is associated with greater likelihood for

dysfunction); among other potential mechanisms. Thus, I expected a significant interaction in that for elevated victimization, ascribing to Hispanic ethnicity would be predictive of greater internalizing dysfunction. I believed this would be particularly salient for self- and peer-reports, and cross-informant agreement. I did not have any *a priori* hypotheses about ethnicity having an impact on teacher-reported victimization.

Method

Participants

Full sample. Participating in the prospective study were 677 fourth grade students and their teachers across 37 mainstream classrooms in 10 public schools in Arkansas. Fourth grade students were chosen for this study because the study required children to have an adequate reading level to complete the study's measures, and because 4th grade is generally considered an elementary school grade. A total of 954 fourth grade students were eligible to participate in the study. Of those, 78% (n = 742) of children returned parental consent forms to the research team. From returned consent forms, 91% (n = 677) received written parental consent to participate in the study.

The mean age of the sample was 9.3 years (SD = .50), with a range of 8 to 11. Gender was evenly distributed, with girls comprising 51.1% (n = 346). The racial/ethnic background was: Hispanic (n = 280, 41.4%), Non-Hispanic White (n = 202, 29.8%), Pacific Islander (n = 67, 9.9%), American Indian (n = 15, 2.2%), Black/African American (n = 14, 2.1%), Asian/Asian American (n = 13, 1.9%), bi/multiracial (n = 48, 7.1%), and other/unreported (n = 38, 5.7%). Participating children reported that in their homes, 74.2% (n = 502) spoke English, 48.2% (n = 326) spoke Spanish, 10.3% (n = 70) spoke Marshallese, and 1.8% (n = 12) spoke another language. For specific demographic items gathered from children, refer to Appendix A.

Inclusion criteria. For the current study, analyses were performed on a truncated sample extracted from the 677 participating 4th grade students. First, analyses were limited to classrooms with at least 40% participation rate based on research suggesting reliable sociometric data requires a minimum participation rate of 40% (Babcock, Marks, Crick, & Cillessen, 2014), which in this sample meant at least 10 participants per class. This exclusion criterion was particularly relevant for peer nomination assessment of children's peer victimization. In classrooms with low number of participating children, participants have reduced degrees of freedom to nominate peers, which may yield outlying results. Including only cases from classrooms with more than 40% participation reduced the sample to n = 659.

Second, one of the aims of this study was to evaluate the extent to which different parametric indices predicted internalizing outcomes. That is, I wanted to examine the effect of the indices on internalizing functioning, controlling for variables that could account for variance explained in predicting those outcomes. As such, across both predictors and indices, I controlled for T1 internalizing scores, as well as gender and race/ethnicity. Given uneven cells in race/ethnicity and limited subgroup sizes (e.g., low number of participants reporting Asian, African American, or American Indian race/ethnicities)—and limited conceptual rationale for expecting significant differences between the various other minority groups—I chose to compare only Hispanic (n = 280) to Non-Hispanic White (n = 194) participants on key study constructs. Past research has yielded mixed results regarding race/ethnicity differences in peer victimization experiences between these two demographic groups and further examination was warranted. Additionally, I excluded participants (n = 2) who did not report gender, given the need for complete predictor data for proposed analyses. The exclusion of other ethnic groups and cases not reporting gender yielded a sample of 472 child participants.

Missing data. I explored whether children were missing T1 or T3 self-report data (victimization and internalizing functioning), and whether patterns of missingness might significantly influence the study's analyses. From the 472 remaining participants, none were missing T1 self-report data. However, 27 participants were missing both self-reported victimization and internalizing outcomes at T3. Prior to excluding or imputing data before generating the indices (which required multi-informant multi-time point data completed), I evaluated whether data was missing not at random (MNAR), missing at random (MAR), or missing completely at random (MCAR). I conducted Little's MCAR test ($\chi^2 = 249.69$, $df = 147$, $p < .001$), which suggested that data was not missing completely at random. As such, I opted to examine the patterns of missingness (Little, Jorgensen, Lang, & Moore, 2013).

For victimization scores, percentage of missing data were: a) self-report (T1 = 0%, T2 = 2.9%, T3 = 5.7%), b) teacher-report (T1 = 3.5%, T2 = 2.3%, T3 = 5.1%), and c) peer-reports (T1 = 0.2%, T2 = 1.6%, T3 = 1.6%). For internalizing scores, missing data were: a) T1 = 0.8%, and b) T3 = 6.4%. I expected missingness due to dropout by time point (participants would have increasingly more data missing at May than at the beginning of the school year). Of the 27 cases missing self-reported data at T3, some children had transferred schools or moved to a different district or state from T1 to T3, while others were absent during data collection in the final assessment wave.

I then evaluated whether *dropout* (i.e., cases missing T3 self-reported victimization and T3 internalizing scores; $n = 27$) was associated with other variables in the study. Pearson Chi-square analyses found dropout was associated with race/ethnicity ($\chi^2 = 8.66$, $df = 1$, $p = .003$), with Non-Hispanic White participants evidencing higher rates of dropout 70.4% ($n = 19$). Independent samples t-tests were used to assess whether dropout was associated with significant

group differences in other variables, with Levene's test assessing equality of variances. T-tests found that in dropout cases (n = 27) there were significant differences in: a) teacher-reported victimization at T1, with dropout cases evidencing greater victimization (M_z = .44, SD = 1.04) than cases with complete T3 self-report data (M_z = -.03, SD = .99); and b) peer-reported victimization at T3, with dropout cases evidencing lower victimization (M_z = -.85, SD = .48) than cases with complete T3 self-report data (M_z = .04, SD = 1.00). T-tests did not find any other significant differences between dropout and T3 completed self-report data.

Finally, after careful examination of patterns of missing data and given small dropout rate and inconsistent or limited findings across variables in missingness, I decided to exclude the 27 dropout cases. This exclusion yielded a final, truncated sample of n = 445 participants. After excluding the cases, I re-ran Little's MCAR test (χ^2 = 119.83, df = 92, p = .027), which suggested data was still not MCAR. However, the only variable that now had missing > 3% of data was T1 teacher-reported victimization (missing n = 17). Across other study variables, no other variable surpassed 1.5% missing data, indicating overall low percentage of missingness. Therefore, the truncated sample did not warrant estimation or imputation approaches to manage missing data. Refer to Figure 1 for a flow diagram showcasing the study's participant recruitment and inclusion criteria.

Truncated sample. Participants in the final, truncated sample were 445 fourth grade students. The mean age of the sample was 9.3 years (SD = .44), with a range of 8 to 10. Gender was evenly distributed, with girls comprising 52.1% (n = 232). The racial/ethnic background was: Hispanic (n = 271, 60.9%) and Non-Hispanic White (n = 174, 39.1%). Participating children reported that in their homes, 77.1% (n = 343) spoke English, 59.3% (n = 264) spoke Spanish, and less than 0.5% (n = 2) spoke another language.

Measures

Peer victimization. Children's peer victimization experiences were assessed via child self-reports, teacher-ratings, and peer-nominations. These data were used to generate the peer victimization index predictors. See Table 1 for means and standard deviations for ratings of peer victimization by informant and time point.

Child self-report. Child-reported victimization was assessed using an adapted version of the *School Experiences Questionnaire* (SEQ; Kochenderfer-Ladd, 2004). The SEQ was comprised of nine items of peer victimization and included three items per subtype (physical, verbal, relational). Physical victimization was characterized by hitting and pushing (e.g., "*How much do kids in your class hit you?*"), verbal victimization by name-calling and teasing (e.g., "*How much do kids in your class say hurtful things to you?*"), and relational victimization by social exclusion and spreading rumors (e.g., "*How much do kids in your class not invite you to things to get back at you for something?*"). Children rated items using a 5-point Likert scale (0 = *Never*, 1 = *Almost Never*, 2 = *Sometimes*, 3 = *Almost Always*, 4 = *Always*). Higher scores represented greater levels of perceived victimization. The SEQ also included three items assessing children's involvement in bullying behaviors, and four filler items (e.g., prosocial behaviors). Only the peer victimization items were used in this study. The self-reported victimization score was the standardized mean score (z-score) across the nine victimization items. To compute this mean, children had to complete a minimum of 5 out of the 9 of the peer victimization items. The SEQ was administered at all time points. Internal consistency, as measured by Cronbach's alpha, for the truncated sample was excellent: a) $\alpha = .87$ at T1, b) $\alpha = .87$ at T2, and c) $\alpha = .89$ at T3. Refer to Appendix B for the SEQ, titled *The Way Kids Are*.

Teacher rating. Teacher-rated peer victimization was assessed using the three-item *School Experiences Questionnaire – Teacher Version* (SEQ-Teacher) created to parallel subscales of the child-reported SEQ (Elledge et al., 2010a). This measure assessed teacher-rated physical ("*How much is this student hit, pushed, or kicked by other students?*"), verbal ("*How much is this student called mean names, told hurtful things, or teased by other students?"),* and relational victimization ("*How much are these students told they can't play, or they have mean things or lies said about them, or they aren't invited to things just to get back at them?").* Items were rated on a 5-point scale paralleling that of the SEQ (0 = *Never*, 1 = *Almost Never*, 2 = *Sometimes*, 3 = *Almost Always*, 4 = *Always*), with higher scores representing greater levels of teacher-reported victimization. Teachers were first provided a numerical roster of participating children in their class, and then asked to rate all participating children in their classroom across the three subtypes of peer victimization. Teacher-rated peer victimization scores were computed by averaging the three items and standardizing the score by classroom (z-score). To compute this score, teachers were required to respond to at least 2 items. The SEQ-T also included one item assessing teacher-reported children's bullying behaviors, though this item was excluded from study analyses. The SEQ-T was administered at all time points. Internal consistency estimates were: a) $\alpha = .87$ at T1, b) $\alpha = .86$ at T2, and c) $\alpha = .88$ at T3. Refer to Appendix C for the SEQ-Teacher.

Peer rating. Peer-rated victimization was assessed using an adapted version of the *Revised Class Play* (RCP; Masten, Morrison, & Pellegrini, 1985). The RCP tasks children with imagining directing a class play and nominating three classmates who best fit various roles, which included experiences with physical, verbal, and relational victimization (e.g., who "could play the part of someone who gets teased, called mean names, or gets told hurtful things"). The

RCP was adapted to parallel wording from the SEQ (Elledge et al., 2010b), assessing children's perceptions of classmates' physical ("*Which kids can play the part of someone who gets pushed, hit, or kicked by other kids?*"), verbal ("*…gets teased, called mean names, or told hurtful things by other kids?*"), and relational ("*…is told they can't play with other kids, has mean things and lies said about them, or isn't invited to things just to get back at them?*") types of victimization experiences. To facilitate successful completion of this measure, items and instructions were read aloud by trained graduate students and undergraduate research assistants. Children were provided the same numerical roster as teachers and were asked to nominate three classmates per each victimization subtype by circling the number corresponding to the classmates' names. Each victimization subtype mean score was generated by: 1) dividing nominations by number of participating classmates (minus one for that child respondent), and 2) standardizing this score by classroom. These weighed, standardized scores were then averaged to create a single peer-rated victimization score. To generate this score, children were required to have at least two of the subtype items completed for the RCP. The RCP also included one item assessing peer-rated bullying of other students, but this was excluded from current analyses. The RCP was administered at all time points. Internal consistency scores for the truncated sample were: a) α = .70 at T1, b) α = .77 at T2, and c) α = .79 at T3. Refer to Appendix D for the adapted *Revised Class Play*.

Internalizing symptoms. Self-reported internalizing symptoms and children's general psychological vulnerability were assessed using an adapted version of the *Revised Children Anxiety and Depression Scale* (RCADS; Chorpita, Yim, Moffitt, Umemoto, & Francis, 2000). The original RCADS is a 47-item self-report measure assessing children's internalizing symptoms. Scores on this measure have been shown to predict anxiety and depressive disorders

in community samples (Chorpita, Moffitt, & Gray, 2005). For this study, I used a 24-item adapted RCADS that included only items from the depression (10 items), generalized anxiety (GAD; 5 items), and social phobia (SP; 9 items) subscales. Items were rated on a 4-point Likert scale (0 = *Never*, 1 = *Sometimes*, 2 = *Often*, 3 = *Always*). Higher scores reflected greater frequency of perceived internalizing symptomatology and maladjustment. Internalizing score was computed as the total sum of the 24 internalizing items. To compute the sum score, participants required completion of a minimum 50% of items. The RCADS was administered at all time points, though the current study utilized only T1 and T3 internalizing scores. Internal consistency was excellent for this scale, with Cronbach's alpha at $\alpha = .93$ for both T1 and T3. The study's outcome measure was the T3 internalizing sum score, while T1 internalizing scores were used to control for baseline internalizing functioning. Refer to Appendix E for the RCADS.

Procedures

Recruitment and incentives. The Institutional Review Board (IRB) at the University of Arkansas approved all methods and procedures for the parent study. See Appendix F for the request for approval, Appendix G and H for study's consent forms (parent, teacher), and Appendix I for a copy of the IRB approval. To aid participant recruitment, classrooms that returned at least 60% of signed parental consent forms, regardless of parents' decision about their children's participation, were gifted a $25 gift card for a class activity. Additionally, the school that yielded the highest percentage of returned parent consent forms received a visit from the university's spirit squad (e.g., mascots, dance squad). A total consent form return rate of 77.7% was received regardless of child's participation status. Out of 37 classrooms, 29 returned at least 60% consent forms. Only 8.9% (n = 66) of children returning parental consent forms

declined participation in the study. At the conclusion of the study, all teachers received a $25 gift card for completing their assessment packets across the three time points.

Administration. Prior to participating in the gradewide study, children were required to return forms with written parental consent and have provided verbal assent. Teachers' consent was also obtained prior to the administration of T1. T1 was scheduled for October to allow an adequate length of time for children and teachers to get to know each other. All assessments were administered by trained graduate students and advanced undergraduate research assistants. Participating children completed the assessment packets in a group setting (e.g., school lunchroom, library). At each assessment time point, completion of measures packet lasted approximately one hour, as the parent project included multiple other measures not part of the current study. Children were adequately spaced and given distractor activities (e.g., mazes, puzzles) to minimize discussion and dissuade interruptions in-between measures completion. The research team read aloud instructions and items for all measures, as well as instructed children to cover their packets and keep the answers to themselves. Measure order was counterbalanced at the school level to minimize the possibility of measure order influencing children and teachers' responses. For counterbalancing, schools were chosen randomly. Teachers completed all measures at school and returned them to the research team within two weeks of each class-wide administration.

Operationalization of Parametric Indices

The study's first aim was to operationalize potentially key parameters of peer victimization. As discussed in the introduction, there are a number of peer victimization parameters that could play an important role in predicting children's internalizing functioning. After reviewing the literature for evidence of parameters that might be predictive of internalizing

risk, I opted to focus on three types of parameters: *Mean Level, Threshold-Specific (Stability, Cross-Informant Agreement),* and *Informant Source* (which overlapped both *Mean Level* and *Threshold-Specific* indices). Though I previously discussed how these parameters were conceptualized (see Current Study), here I described the process of operationalizing and generating these parameters.

Mean Level indices. This parameter refers to the *mean level* of children's peer victimization experiences. It was generated to help answer the questions: 1) does the level of peer victimization over the span of a school year predict children's internalizing functioning at the end of the academic year; 2) are there differences in the predictive utility of level of victimization on internalizing functioning across different informant sources of victimization; and 3) does level of victimization provide comparative utility to T3 single-time point victimization scores in predicting internalizing maladjustment.

To generate the *Mean Level-Self* index, I: 1) computed T1 victimization means from the nine T1 self-reported victimization items (SEQ); 2) computed T2 means from the nine T2 victimization items; and 3) computed T3 means from the nine T3 victimization items. I then: 4) standardized (z-scores) the three self-reported victimization means (*T1 Mean-Self, T2 Mean-Self, T3 Mean-Self*). From these three standardized mean scores, I then: 5) computed a grand mean score (*Mean Level-Self*). Thus, *Mean Level-Self* reflected the overall level of victimization endorsed by child self-reports over the course of the three assessment waves (October, December, May).

To generate the *Mean Level-Teacher* index, I: 1) computed T1 victimization means from the three T1 teacher-rated victimization items (SEQ-T); 2) computed T2 means from the three T2 teacher-rated items; and 3) computed T3 means from the three T3 teacher-rated items. I then: 4)

standardized (z-scores) and weighted (by number of participating students) the three teacher-rated means (*T1 Mean-Teacher, T2 Mean-Teacher, T3 Mean-Teacher*). From these three standardized mean scores, I then: 5) computed a grand mean score (*Mean Level-Teacher*). Thus, *Mean Level-Teacher* reflected the overall level of children's peer victimization experiences over the span of a school year as rated by children's teachers.

To compute the *Mean Level-Peer* index, I performed the same procedures as for *Mean Level-Teacher*, using peer-nominated standardized mean weighted victimization scores. One difference to note, however, is that while *Mean Level-Peer* and *Mean Level-Teacher* reflect the overall level (based on frequency scores) of peer victimization, peer-nominated victimization reflects the overall level (based on number of peer nominations) of peer victimization. In other words, higher scores in *Mean Level-Peer* reflect greater number of peers nominating a child as victimized over the course of a school year. Overall, *Mean Level* indices represent children's level of involvement with peer victimization—which could be indicative of intensity, frequency, or visibility—as reported by different informant sources.

Threshold-specific indices. These indices encompassed two parameters: *Stability* and *Cross-Informant Agreement*. Threshold-specific indices were ordinal in nature, and treated as continuous predictors in analyses. To generate threshold-specific indices, I first identified the mean peer victimization scores per informant at each time point (described in the previous section). Specifically, these included a total of nine mean victimization scores: *T1 Mean-Self, T2 Mean-Self, T3 Mean Self; T1 Mean-Teacher, T2 Mean-Teacher, T3 Mean-Teacher; T1 Mean-Peer, T2 Mean-Peer,* and *T3 Mean-Peer*. For each of these variables, I then dichotomized children into two categories: a) children whose mean scores were less than 1 *SD* (0 = *not elevated*); and b) children whose mean scores were equal to or greater than 1 *SD* (1 = *elevated*).

Therefore, *elevated* victimization for each of these nine variables was considered any mean score that met or surpassed one standard deviation. Refer to Table 2 for a frequency summary of *elevated* and *not elevated* scores by informant and time point.

Stability. From the three single time-point threshold variables (*elevated* vs. *not elevated*) per each informant, I generated the *Stability* indices, each with four distinct levels. For example, the levels for *Stability-Self* were: a) children who endorsed *not elevated* victimization scores across all time points (0 = *None*; *not elevated* score at T1, T2, and T3); b) children who endorsed only one *elevated* victimization score across the three time points (1 = *One Elevation*; *elevated* score only at T1, T2, or T3); c) children who endorsed only two *elevated* scores across the three time points (2 = *Repeated; elevated* score at T1 and T2, T1 and T3, or T2 and T3); and d) children who endorsed *elevated* scores across all time points (3 = *Stable*; *elevated* score at T1, T2, and T3). To compute the *Stability-Teacher* and *Stability-Peer* indices, I performed the same procedure, using teacher- and peer-reported victimization scores, respectively.

Cross-Informant Agreement. This parameter is one that has received limited attention as a potential predictor of victimized children's internalizing functioning. I operationalized *Cross-Informant Agreement* as the number of different informant sources who reported *elevated* victimization within a single time point. The term *agreement* here was not used as traditional statistical inter-rater reliability agreement. Rather, it was used to describe (in more colloquial terms) whether different informant sources (self, teacher, peers) "agreed" that a child was experiencing high levels of victimization. Specifically, agreement in this study meant informants' concordance that a child met or surpassed the *elevated* victimization threshold (within their informant source). As such, it was not defined as perfect inter-rater agreement, in which the level of agreement might necessitate equal values match—particularly given the

difference in measures used by each informant source, and research suggesting that distinct respondents might provide distinct perspectives on non-redundant childhood experiences.

To compute *Cross-Informant Agreement-T1*, using the dichotomized variables (*not elevated*, *elevated* values) generated from T1 standardized victimization mean scores, I generated an ordinal variable comprised of four distinct levels: a) children who at T1 did not have any peer victimization scores at the *elevated* threshold across all informants (0 = *None*; *not elevated* score at T1 for self, teacher, and peers); b) children who at T1 had a peer victimization score at the *elevated* threshold for only one informant (1 = *One Informant*; *elevated* score at T1 for only one of self, teacher, or peers); c) children who at T1 had peer victimization scores at the *elevated* threshold for exactly two informants (2 = *Two Informants*; *elevated* score at T1 for self and teacher, self and peer, or teacher and peers); d) children who at T1 had peer victimization scores at the *elevated* threshold across all informants (3 = *Three Informants*; *elevated* score at T1 for self, teacher, and peers). To compute the *Cross-Informant Agreement-T2* and *Cross-Informant Agreement-T3* indices, I engaged in the same procedure, using T2 and T3 victimization scores, respectively.

Data Analytic Plan

Aim 1. To operationalize key peer victimization parameters, and generate indices that might predict children's internalizing experiences. After generating the parametric indices, I explored the frequency and distribution of the parametric indices and provided descriptive statistics.

Aim 2. To explore the relations amongst the peer victimization parametric indices generated for this study. I evaluated the relations among the parametric indices and *T3 Mean* predictors using bivariate correlation analyses (Pearson's correlation coefficient *r*).

Aim 3. To generate T3 single informant (self, teacher, peer) victimization scores, and examine them as "default" comparisons in predicting T3 internalizing outcomes. Prior to evaluating the impact of the parametric indices on internalizing outcomes, I evaluated the extent to which *T3 Mean* self-, teacher-, and peer-reported victimization predicted T3 internalizing scores (controlling for T1 RCADS scores, gender, and race/ethnicity). To evaluate the predictive utility of T3 single informant standardized victimization scores, I performed three hierarchical multiple regressions—one per informant source. Controlling for T1 RCADS and demographic variables here meant calculating the change in adjusted R^2 between steps, accounting for variance changes after each variable (or group of variables) has been entered into the model (Pedhazur, 1997). For example, for T3 self-reported victimization, I: a) in Step 1, input T1 RCADS, gender, and race/ethnicity; b) in Step 2, input *T3 Mean-Self*; and c) regressed the predictors on T3 internalizing outcomes (dependent variable; T3 RCADS sum score). I repeated the same analyses for the *T3 Mean-Teacher* and *T3 Mean-Peer* victimization predictors.

For analyses, I provided bivariate results: zero-order correlation coefficient (*r*). I also provided multivariate results for the overall model, including *R*-squared (R^2), *R*-squared change (ΔR^2), *F* statistic change (ΔF), degrees of freedom (*df*), and Durbin-Watson statistic (DW). By predictor, I provided: standardized beta coefficient (beta), *t* value (*t*), and 95% Confidence Interval (95% CI). I compared R^2 change and beta across models to evaluate whether one predictor provided better predictive utility compared to other predictors.

Aim 4. To evaluate whether the peer victimization indices predicted children's T3 internalizing outcomes; to examine the indices' predictive utility; and to compare the indices' predictive utility to the default model (T3 Mean-Self). Using the same analytical approach described in Aim 3, I regressed the parametric indices on internalizing functioning (T3

RCADS sum score) across nine hierarchical multiple regressions with the following predictors: 1) *Mean Level (-Self, -Teacher, -Peer*); 2) *Stability (-Self, -Teacher, -Peer*); and 3) *Cross-Informant Agreement (-T1, -T2, -T3*). For all regressions, Step 1 included T1 RCADS, gender, and race/ethnicity; in Step 2, the individual indices were included as predictors of T3 RCADS (dependent variable). As with Aim 3, I: a) provided bivariate and multivariate results for all nine hierarchical multiple regressions; b) compared R^2 change and beta across index models to evaluate which indices were most predictive of internalizing maladjustment; and c) compared R^2 change and beta for the indices to the default predictor (T3 Mean-Self), to determine whether the indices provided comparative or improved predictive utility.

Aim 5. To examine whether gender and race/ethnicity moderated the relation between peer victimization indices and internalizing outcomes. To test whether gender and race/ethnicity moderated the relation between predictors and internalizing outcomes, I re-ran the hierarchical multiple regressions described in Aim 3 (for *T3 Mean* predictors) and Aim 4 (for parametric indices) twice each—for a total of 24 analyses—with the addition of a Step 3 that included: a) a gender (girl, boy) by predictor interaction, and b) a race/ethnicity (Non-Hispanic White, Hispanic/Latinx) by predictor interaction.

To probe significant two-way interactions, I used methodology proposed by Aiken and West (1991), Dawson (2014), and Holmbeck (2002). Specifically, I generated an interaction term between the centered continuous predictors/indices (e.g., *Mean Level-Peer*) and potential moderators (e.g., race/ethnicity) and ran the hierarchical multiple regressions to test for moderation. I then computed simple slopes analyses using the following values: 1) variance of coefficient of predictor/index; 2) variance of coefficient of interaction; 3) covariance of coefficients of predictor/index and interaction; 4) sample size; and 5) number of control

variables. Finally, I plotted the simple slopes using the unstandardized regression coefficients (of predictor/index, moderator, interaction term, and constant) and the means and *SD* of predictor/index and moderator to identify values at which to plot the slopes (-1 *SD* and +1 *SD* values for predictor/index and moderator). I then reported the results of the post hoc analysis: gradient (rate of change in T3 RCADS as predictor/index changes; unstandardized regression coefficient *b*), *t*-value, and significance (*p*-value) of slope by moderator level.

Results

Aim 1: Descriptive Statistics for Parametric Indices

Mean Level. For the *Mean Level-Self* index, the mean distribution was *M* = -.01 (*SD* = .85; Range = -1.13 – 3.75). For *Mean Level-Teacher*, distribution was *M* = -.01 (*SD* = .85; Range = -1.29 – 3.27). For *Mean Level-Peer*, mean distribution was *M* = -.08 (*SD* = .70; Range = -1.17 – 3.28). Refer to Table 3 for descriptive summary of the parametric indices and *T3 Mean* predictors.

Stability. For the *Stability-Self* index, frequency distribution of scores was: a) *None* = 325 (73%), b) *One Elevation* = 68 (15.3%), c) *Repeated* = 29 (6.5%), and d) *Stable* = 23 (5.2%). For *Stability-Teacher*, frequency was: a) *None* = 319 (71.7%), b) *One Elevation* = 61 (13.7%), c) *Repeated* = 37 (8.3%), and d) *Stable* = 28 (6.3%). For *Stability-Peer*, frequency distribution of scores was: a) *None* = 376 (84.5%), b) *One Elevation* = 34 (7.6%), c) *Repeated* = 18 (4%), and d) *Stable* = 17 (3.8%). Refer to Table 4 for a summary of frequency distribution for threshold-specific indices. Given that *Stability* indices were used as continuous predictors, the mean distribution for these was: a) *Stability-Self* was *M* = .44 (*SD* = .83; Range = 0 – 3); b) *Stability-Teacher* was *M* = .49 (*SD* = .89; Range = 0 – 3); and c) *Stability-Peer* was *M* = .27 (*SD* = .71; Range = 0 – 3).

Cross-Informant Agreement. For the *Cross-Informant Agreement-T1* index, frequency distribution was: a) *None* = 293 (65.8%), b) *One Informant* = 114 (25.6%), c) *Two Informants* = 34 (7.6%), and d) *Three Informants* = 4 (0.9%). Mean distribution was *M* = .44 (*SD* = .67; Range = 0 – 3). For *Cross-Informant Agreement-T2*, frequency was: a) *None* = 321 (72.1%), b) *One Informant* = 94 (21.1%), c) *Two Informants* = 27 (6.1%), and d) *Three Informants* = 3 (0.7%). Mean distribution was *M* = .35 (*SD* = .63; Range = 0 – 3). For *Cross-Informant Agreement-T3*, frequency was: a) *None* = 307 (69%), b) *One Informant* = 100 (22.5%), c) *Two Informants* = 30 (6.7%), and d) *Three Informants* = 8 (1.8%). Mean distribution was *M* = .41 (*SD* = .70; Range = 0 – 3).

Aim 2: Bivariate Correlations Amongst Indices and Predictors

T3 Mean. Prior to examining the relations amongst the parametric indices, I examined the relations between the T3 victimization means. There were significant, positive correlations between the three *T3 Mean* variables: a) *T3 Mean-Self* and *T3 Mean-Teacher* ($r = .16$, $p < .001$); b) *T3 Mean-Self* and *T3 Mean-Peer* ($r = .22$, $p < .001$); and c) *T3 Mean-Teacher* and *T3 Mean-Peer* ($r = .45$, $p < .001$).

Parametric indices. Bivariate correlations examined relations among the indices. As hypothesized, all indices were significantly, positively correlated with each other. Though Pearson's *r* ranged from .11 to .84, the majority of indices were moderately (*r* range = .22 - .65) correlated with each other. The weakest associations were found between: a) *Stability-Self* and *Stability-Peer* ($r = .11$, $p < .05$); b) *Mean Level-Self* and *Stability-Peer* ($r = .13$, $p < .01$); c) *Stability-Self* and *Stability-Teacher* ($r = .15$, $p < .01$); and d) *Stability-Self* and *Mean Level-Teacher* ($r = .15$, $p < .01$). As expected, the strongest associations were found between: a) *Stability-Self* and *Mean Level-Self* ($r = .84$, $p < .001$); b) *Stability-Teacher* and *Mean Level-*

Teacher (r = .80, p < .001); and c) *Stability-Peer* and *Mean Level-Peer* (r = .80, p < .001). Interestingly, *Cross-Informant Agreement* indices (regardless of time point) were moderately correlated to both *Mean Level* and *Stability* indices (regardless of informant), with r ranging from .49 to .65. The weakest associations for *Cross-Informant Agreement* were with *T3 Mean* predictors at T1 (r range = .33-48) and T2 (r range = .33-48). However, as expected, *Cross-Informant Agreement-T3* was more strongly correlated with *T3 Mean* predictors (r range = .53-60).

T3 Mean and parametric indices. Between the *T3 Mean* and parametric indices, all were significantly, positively correlated with each other—except for *T3 Mean-Self* and *Stability-Peer* (r = .09, p = .055). As expected, informant-specific predictors were more highly correlated. For example, *T3 Mean-Self* was highly correlated with *Mean Level-Self* (r = .85, p < .001) and *Stability-Self* (r = .71, p < .001). Similar patterns were observed for same-informant predictors for teacher and peer indices. However, between informants, correlations between *T3 Mean* and parametric indices were weak to modest. For example, *T3 Mean-Self* yielded weak correlations with other informants: *Mean Level-Teacher* (r = .19, p < .001), *Mean Level-Peer* (r = .17, p < .001), and *Stability-Teacher* (r = .16, p = .001). *T3 Mean-Teacher* yielded weak associations with self-reported indices—such as with *Mean Level-Self* (r = .20, p < .001) and *Stability-Self* (r = .14, p = .003)—and modest association with peer-reported indices—such as *Mean Level-Peer* (r = .41, p < .001) and *Stability-Peer* (r = .35, p < .001). Similar patterns were found with *T3 Mean-Peer* correlations. Between *T3 Mean* predictors and *Cross-Informant Agreement* indices, modest to moderate correlations were found (range of r = .33 - .60). Refer to Table 5 for a full summary of the bivariate correlations across all peer victimization indices and predictors.

Aim 3: Hierarchical Regressions for *T3 Mean* Victimization Predictors

Hierarchical multiple regressions tested whether *T3 Mean* victimization scores predicted internalizing outcomes (T3 RCADS sum) at the multivariate level (controlling for T1 RCADS, gender, and race/ethnicity). Prior to presenting the results of the multivariate analyses, I first presented the bivariate results at Step 1. Refer to Table 6 for a summary of the regression statistics for *T3 Mean* predictors.

Bivariate results. The results indicated that the *T3 Mean* predictors positively predicted T3 RCADS: a) *T3 Mean-Self* (r = .584, p < .001), b) *T3 Mean-Teacher* (r = .114, p = .009), and c) *T3 Mean-Peer* (r = .143, p = .001). Of the covariates, T1 RCADS positively predicted T3 RCADS (r = .616, p = .001), and gender negatively predicted T3 RCADS (r = -.162, p = .001), with girls evidencing greater association with T3 RCADS. Race/ethnicity did not predict T3 RCADS (r = .060, p = .103).

Multivariate results. *Covariates*. The hierarchical multiple regressions revealed a significant model at Step 1, F (3, 435) = 98.09, p < .001, with gender, race/ethnicity, and T1 RCADS explaining 40% of the variance in T3 RCADS. At Step 1, gender negatively predicted T3 RCADS (beta = -.14, t = -3.71, p < .001), with girls endorsing higher internalizing outcomes than boys, and T1 RCADS positively predicted T3 RCADS (beta = .61, t = 16.54, p < .001). Race/ethnicity did not significantly contribute to the model.

***T3 Mean-Self*.** Inputting *T3 Mean-Self* at Step 2 explained an additional 13% of the variance in internalizing outcomes, ΔF (1, 434) = 120.28, p < .001, with the model now explaining 53% of the variance. *T3 Mean-Self* positively predicted T3 RCADS (beta = .39, t = 10.97, p < .001) even when controlling for T1 RCADS, gender, and race/ethnicity. Including *T3 Mean-Self* in the model at Step 2 reduced the variance explained by T1 RCADS (beta = .45, t =

12.61, $p < .001$). Given the improvement of model fit and increased variance explained, the results supported the use of *T3 Mean-Self* as the "default" model to compare parametric indices to.

T3 Mean-Teacher. Adding *T3 Mean-Teacher* at Step 2 explained less than 1% ($\Delta R^2 = .007$) additional variance in internalizing outcomes, $\Delta F (1, 434) = 5.50$, $p = .020$. Though *T3 Mean-Teacher* positively predicted T3 RCADS, the effect was small (beta = .09, $t = 2.34$, $p = .020$) when controlling for T1 RCADS, gender, and race/ethnicity. Including *T3 Mean-Teacher* in the model at Step 2 did not significantly change of the variance explained by T1 RCADS (beta = .61, $t = 16.39$, $p < .001$).

T3 Mean-Peer. As with *T3 Mean-Teacher*, adding *T3 Mean-Peer* at Step 2 explained less than 1% ($\Delta R^2 = .007$) additional variance in internalizing outcomes, $\Delta F (1, 434) = 5.53$, $p = .019$. *T3 Mean-Peer* positively predicted T3 RCADS, though the effect was weak (beta = .09, $t = 2.35$, $p = .019$). As with *T3 Mean-Teacher*, including *T3 Mean-Peer* in the model did not significantly change the variance explained by T1 RCADS.

Aim 4: Hierarchical Regressions for Parametric Indices of Peer Victimization

Hierarchical multiple regression analyses were used to test whether the parametric indices predicted internalizing outcomes (T3 RCADS sum) at the multivariate levels (controlling for T1 RCADS, gender, and race/ethnicity). Refer to Tables 7-9 for complete summary of regression results by parametric index: *Mean Level* (Table 7), *Stability* (Table 8), and *Cross-Informant Agreement* (Table 9).

Bivariate results. *Mean Level*. As expected, the results indicated that the *Mean Level* indices positively predicted T3 RCADS: a) *Mean Level-Self* ($r = .528$, $p < .001$), b) *Mean Level-Teacher* ($r = .114$, $p = .003$), and c) *Mean Level-Peer* ($r = .096$, $p = .023$).

Stability. Results indicated that at the bivariate level, *Stability-Self* (r = .404, p < .001) and *Stability-Peer* (r = .091, p = .028) positively predicted T3 RCADS. Unexpectedly, *Stability-Teacher* did not predict T3 RCADS (r = .073, p = .063).

Cross-Informant Agreement. Results indicated that the *Cross-Informant Agreement* indices positively predicted T3 RCADS: a) *Cross-Informant Agreement-T1* (r = .179, p < .001); b) *Cross-Informant Agreement-T2* (r = .202, p < .001); and c) *Cross-Informant Agreement-T3* (r = .316, p < .001).

Multivariate results. *Mean Level.* *Mean Level-Self.* Adding *Mean Level-Self* at Step 2 explained an additional 6% of the variance in internalizing outcomes, ΔF (1, 434) = 44.27, p < .001, with the model now explaining 46% of the variance. *Mean Level-Self* positively predicted T3 RCADS (beta = .29, t = 6.65, p < .001) even when controlling for T1 RCADS, gender, and race/ethnicity. Including *Mean Level-Self* in the model at Step 2 reduced the variance explained by T1 RCADS (beta = .45, t = 10.50, p < .001), and slightly increased the variance explained by gender (beta = -.16, t = 4.54, p < .001).

Mean Level-Teacher. Adding *Mean Level-Teacher* at Step 2 explained less than 1% (ΔR^2 = .009) additional variance in internalizing outcomes, ΔF (1, 434) = 6.39, p = .012. Though *Mean Level-Teacher* positively predicted T3 RCADS, the effect was weak (beta = .09, t = 2.53, p = .012) when controlling for covariates. Including *Mean Level-Teacher* in the model at Step 2 did not significantly change the variance explained by T1 RCADS or gender.

Mean Level-Peer. Adding *Mean Level-Peer* at Step 2 explained less than 1% (ΔR^2 = .003) additional variance in internalizing outcomes, with the F change no longer significant, ΔF (1, 434) = 2.41, p = .121. When controlling for T1 RCADS, gender, and race/ethnicity, *Mean Level-Peer* no longer predicted internalizing outcomes (beta = .06, t = 1.55, p = .121).

Stability. *Stability-Self.* Including *Stability-Self* at Step 2 explained only an additional 2% of the variance in internalizing outcomes, ΔF (1, 434) = 17.50, $p < .001$, with the model now explaining 43% of the variance. *Stability-Self* positively predicted T3 RCADS (beta = .17, t = 4.18, $p < .001$) even when controlling for T1 RCADS, gender, and race/ethnicity. Including *Stability-Self* in the model at Step 2 did reduce the variance explained by T1 RCADS (beta = .53, t = 12.88, $p < .001$).

Stability-Teacher. Adding *Stability-Teacher* at Step 2 explained less than 1% (ΔR^2 = .006) additional variance in internalizing outcomes, ΔF (1, 434) = 4.30, p = .039. *Stability-Teacher* positively predicted T3 RCADS, though the effect was weak (beta = .08, t = 2.07, p = .039) when controlling for covariates. Including *Stability-Teacher* did not significantly change the variance explained by T1 RCADS.

Stability-Peer. Adding *Stability-Peer* at Step 2 did not explain additional variance in internalizing outcomes (ΔR^2 = .003), with the F change no longer significant, ΔF (1, 434) = 2.45, p = .118. When controlling for covariates, *Stability-Peer* no longer predicted internalizing outcomes.

Cross-Informant Agreement. *Cross-Informant Agreement-T1.* Adding *Cross-Informant Agreement-T1* at Step 2 did not explain additional variance in internalizing outcomes (ΔR^2 = .002), with the F change no longer significant, ΔF (1, 434) = 1.27, p = .260. When controlling for covariates, *Cross-Informant Agreement-T1* did not predict internalizing outcomes.

Cross-Informant Agreement-T2. Adding *Cross-Informant Agreement-T2* at Step 2 did not significantly explain additional variance in internalizing outcomes (ΔR^2 = .005), though the F change trended toward significance, ΔF (1, 434) = 3.70, p = .055. When controlling for

covariates, *Cross-Informant Agreement-T2* did not predict internalizing outcomes at a statistically significant level (beta = .08, $t = 1.92$, $p = .055$).

Cross-Informant Agreement-T3. Including *Cross-Informant Agreement-T3* at Step 2 explained an additional 5% of the variance in internalizing outcomes, $\Delta F (1, 434) = 38.92$, $p < .001$, with the model now explaining 45% of the variance. *Cross-Informant Agreement-T3* positively predicted T3 RCADS (beta = .23, $t = 6.24$, $p < .001$) even when controlling for covariates. Further, including *Cross-Informant Agreement-T3* in the model at Step 2 changed race/ethnicity's predictive relation to the dependent variable, as the covariate now predicted T3 RCADS (beta = .07, $t = 2.03$, $p = .043$), with Hispanic youth evidencing greater risk for internalizing outcomes.

Aim 5: Testing Whether Gender and Race/Ethnicity Moderated the Relation Between Peer Victimization Predictors and Internalizing Outcomes

Hierarchical multiple regressions were used to test whether gender and ethnicity moderated the relation between predictors/parametric indices and internalizing outcomes. Gender (coded: 0 = girls; 1 = boys) and race/ethnicity (coded: 0 = Non-Hispanic Whites; 1 = Hispanic) were evaluated in separate models. Interaction terms between the demographic variables and predictors/indices were generated, and included in Step 3 of the hierarchical regressions. Only significant multivariate results—interaction effects controlling for T1 RCADS, gender, and race/ethnicity at Step 1 and including predictor/index at Step 2—are presented below. Refer to Table 10 for a truncated summary of the bivariate, multivariate, and moderation results across the predictors and indices. Refer to Table 11 for a complete summary of Step 3 of the hierarchical multiple regressions testing moderation of gender and race/ethnicity on internalizing outcomes.

T3 Mean. Including the *T3 Mean-Self* × Gender interaction at Step 3 explained less than 1% ($\Delta R^2 = .005$) additional variance for the *T3 Mean-Self* model, ΔF (1, 434) = 4.27, $p = .039$, with the model explaining 54% of T3 RCADS variance. The regression yielded a significant interaction effect (beta = -.09, $t = -2.07$, $p = .039$). Post hoc analyses found that higher levels of *T3 Mean-Self* predicted higher T3 RCADS for both girls and boys. However, gender appeared to moderate the relation between *T3 Mean-Self* reported victimization and internalizing outcomes. Specifically, at lower *T3 Mean-Self,* girls and boys reported similar rates of T3 RCADS, but girls ($b = 6.64$, $t = 9.55$, $p < .001$) evidenced a steeper slope than boys ($b = 4.70$, $t = 6.69$, $p < .001$). As expected, girls at high *T3 Mean-Self* scores reported higher T3 RCADS than boys at high *T3 Mean-Self*. Refer to Figure 2 for the simple slopes interaction plot for *T3 Mean-Self* and T3 RCADS moderated by gender.

At Step 3, including the *T3 Mean-Peer* × Race/ethnicity interaction explained 1% ($\Delta R^2 = .010$) additional variance for the *T3 Mean-Peer* model, ΔF (1, 434) = 7.70, $p = .006$, with the model explaining 42% of the variance in T3 RCADS. The regression yielded a significant interaction effect (beta = .14, $t = 2.77$, $p = .006$). Post hoc analyses found that race/ethnicity moderated relation between *T3 Mean-Peer* and T3 RCADS. For Non-Hispanic White youth ($b = .38$, $t = .46$, $p = .647$), *T3 Mean-Peer* level did not impact T3 RCADS score, but for Hispanic youth level of *T3 Mean-Peer* impacted T3 RCADS. Specifically, as expected, at high *T3 Mean-Peer* scores, Hispanic youth ($b = 4.02$, $t = 3.65$, $p < .001$) reported higher internalizing scores than Non-Hispanic White youth. Refer to Figure 3 for the simple slopes interaction plot for *T3 Mean-Peer* and T3 RCADS moderated by race/ethnicity. Neither gender nor race/ethnicity moderated the relation between *T3 Mean-Teacher* and T3 RCADS.

Mean Level. At Step 3, including the *Mean Level-Peer* × Race/ethnicity interaction explained 1% (Δ R^2 = .011) additional variance for the *Mean Level-Peer* model, Δ F (1, 434) = 8.11, p = .005, with the model explaining 42% of the variance in T3 RCADS. The regression yielded a significant interaction effect (beta = .15, t = 2.85, p = .005). Post hoc analyses revealed the same pattern found with *T3 Mean-Peer* and race/ethnicity. For Non-Hispanic White youth (b = -.32, t = -.33, p = .743), *Mean Level-Peer* level did not impact T3 RCADS score, but for Hispanic youth *Mean Level-Peer* impacted T3 RCADS. Specifically, at high *Mean Level-Peer* scores, Hispanic youth (b = 3.95, t = 3.18, p = .002) reported higher internalizing scores than Non-Hispanic White youth. Refer to Figure 4 for the simple slopes interaction plot for *Mean Level-Peer* and T3 RCADS moderated by race/ethnicity. Neither gender nor race/ethnicity moderated the relation between *Mean Level-Self* or *Mean Level-Teacher* and T3 RCADS.

Stability. At Step 3, including the *Stability-Self* × Gender interaction explained less than 1% (Δ R^2 = .005) additional variance for the *Stability-Self* model, Δ F (1, 434) = 3.96, p = .047, with the model explaining 43% of the variance in T3 RCADS. The regression yielded a significant interaction effect (beta = -.11, t = -1.99, p = .047). As with *T3 Mean-Self*, post hoc analyses found that higher *Stability-Self* predicted higher T3 RCADS for both girls and boys. However, at lower *Stability-Self*, girls and boys reported similar rates of T3 RCADS, but girls (b = 4.39, t = 4.41, p < .001) evidenced a steeper slope than boys (b = 1.88, t = 2.04, p = .042)—with girls at high *Stability-Self* scores reporting higher T3 RCADS than boys. Refer to Figure 5 for the simple slopes interaction plot for *Stability-Self* and T3 RCADS moderated by gender.

At Step 3, including the *Stability-Peer* × Race/ethnicity interaction explained less than 1% (Δ R^2 = .009) additional variance for the *Stability-Peer* model, Δ F (1, 434) = 6.50, p = .011, with the model explaining 42% of the variance in T3 RCADS. The regression yielded a

significant interaction effect (beta = .14, t = 2.55, p = .011). Post hoc analyses revealed the same interaction pattern found between other peer informant predictors and race/ethnicity. For Non-Hispanic White youth (b = -.31, t = -.32, p = .750), *Stability-Peer* level did not impact T3 RCADS score, but for Hispanic youth *Stability-Peer* impacted T3 RCADS. Specifically, at high *Stability-Peer* scores, Hispanic youth (b = 3.41, t = 2.95, p = .003) reported higher internalizing scores than Non-Hispanic White youth. Refer to Figure 6 for the simple slopes interaction plot for *Stability-Peer* and T3 RCADS moderated by race/ethnicity. Neither gender nor race/ethnicity moderated the relation between *Stability-Teacher* and T3 RCADS.

Cross-Informant Agreement. Contrary to hypotheses, neither gender nor race/ethnicity moderated the relation between *Cross-Informant Agreement* indices and T3 RCADS.

Discussion

Peer victimization is a pervasive, public health concern that affects children worldwide. Robust evidence suggests that experiencing bullying and victimization increases the risk for psychosocial maladjustment in school-age youth. The wide range of detrimental outcomes associated with experiencing peer victimization include: internalizing problems (e.g., depression, anxiety); self-harm and suicidality; externalizing problems; social adjustment problems; somatic and physical health problems; and academic problems. Further, studies find the impact of peer victimization on children's maladjustment to be both concurrent and enduring. Given the health and mental health risks associated with peer victimization, scholars have developed universal interventions that aim to reduce the incidence of victimization. Such approaches, when implemented with fidelity, have shown promise in helping reduce schoolwide rates of victimization and improve the overall school climate. However, not much is known about how universal programs help children experiencing more severe or enduring forms of victimization.

To address the needs of children involved in more problematic victimization, a limited number of researchers have developed targeted interventions that focus on victims at greater risk for negative sequela.

The limited empirical support available for targeted interventions for victimized youth could suggest the field still lacks clarity in understanding how peer victimization confers risk for maladjustment. Implicit here is that better understanding the aspects of victimization most predictive of psychosocial risk, scholars could further develop interventions that target the mechanisms through which factors impart risk to children. Though studies have sought to explore which aspects of victimization—such as frequency, stability, or visibility—are predictive of maladjustment, the field is still nascent and in need of further exploring these parameters. The current literature evidences some problems in the operationalization of distinct parameters of victimization, often using parameters interchangeably across studies. Further, it is difficult to compare findings on victimization parameters across studies, given the wide range of methods, samples, and operationalizations used. To better help children experiencing more harmful involvement with peer victimization, it would be critical to parse out which aspects of peer victimization place youth at risk for maladjustment—particularly for the concerning link found between victimization and internalizing problems.

In the current study, I sought to better understand which parameters of victimization predict internalizing symptoms. To guide the selection of the parameters used for this study, I reviewed the empirical literature on peer victimization and bullying (and other forms of early childhood adversity), and reviewed various conceptual frameworks (*social information processing models, social ecological models*) that might explain the link between these parameters and internalizing dysfunction. Implicit in the rationale for this study were the possible

implications of these findings. If one parameter is a better predictor for maladjustment than another, then scholars could more closely attend to that parameter in the evaluation of screening, prevention, and intervention efforts. Similarly, if multiple parametric indices were to provide comparable predictive utility for internalizing concerns, researchers can evaluate the costs and benefits of focusing on particular parameters—relative to the cost, time, and feasibility of gathering those data. At minimum, the current study aimed to better understand the role that distinct victimization parameters might play in the development of internalizing problem in elementary school children.

The primary purpose of this study was to elucidate which aspects of peer victimization increase children's risk for internalizing maladjustment. In the current study, I operationalized distinct parameters of peer victimization and evaluated the extent to which they predicted 4th grade children's internalizing outcomes at the end of an academic year. Specifically, I indexed the following parameters of peer victimization: 1) *Mean Level* (overall level of victimization across three time points); 2) *Stability* (stably elevated victimization across three time points); 3) *Informant Source* (victimization reports per each informant source – self, teacher, peers); and 4) *Cross-Informant Agreement* (number of different informant sources reporting elevated victimization at a single time point).

Exploring the Peer Victimization Indices

The parametric indices were generated as either continuous variables (*Mean Level*) or threshold-specific composite ordinal variables (*Stability, Cross-Informant Agreement*). To develop the threshold-specific indices, I first dichotomized each informant's peer victimization scores (per time point) to *elevated* ($M \geq 1$ *SD*) or *not elevated* ($M < 1$ *SD*). Interestingly, the results suggested variability in proportion of *elevated* scores by informant. The greatest

proportion of children meeting *elevated* threshold was for teacher ratings (13.3-19.3%), with self-reports (13.0-16.2%) yielding comparative *elevated* rates to teacher reports. Peer-nominations yielded significantly lower rates (8.5-9.7%) of *elevated* victimization compared to both teacher and child informants. These findings suggested that meeting the threshold for *elevated* peer-nominated victimization might be a more stringent threshold than for teacher- or self-reports. Alternatively, it is possible that peers (in late elementary school) might: a) be less likely to report on children's peer victimization experiences; b) be less attuned to children's victimization experiences; c) underreport children's peer victimization; d) be more likely to only notice overt victimization (potentially missing other more subtle forms, such as relational or exclusionary); or e) not be privy to all the settings and contexts in which victimization occurs—among other possible reasons. It is important to highlight that these differences are not unexpected, given that peer-reports utilized a different approach (peer nominations) than child and teacher-reports of victimization to assess children's victimization experiences. In contrast, teachers and children themselves appeared to yield more similar rates of elevated victimization, with teachers reporting slightly higher rates of victimization. What was not known from this initial look at these variables was whether the children identified as *elevated* overlapped across the three informant sources. Across sources, *elevated* victimization rates were within published estimates of victimization found in other studies.

When exploring the threshold-specific indices, I first examined the *Stability* parameter. I expected that children whose experiences were *Repeated* (elevated across 2 time points) or *Stable* (elevated scores across all time points), would reflect significant long-term involvement with victimization. For *Stability-Self*, 11.7% of youth met repeated or stable criteria; for *Stability-Teacher*, 14.6% of youth met these criteria; and for *Stability-Peer*, 7.8% met the

criteria. These scores represented children whose victimization experiences were more enduring (*elevated* victimization scores at 2 or 3 time points in a school year). These rates were similar to those found in other studies examining longer-term exposure to victimization. For 4th grade children, the rates suggested that peer reports might be the least stable of the three informant sources, while teacher reports seem the most stable. It was not surprising that teacher reports yielded the greatest stability out of the informant sources, and possibly suggests that teachers might be more likely to have enduring schemas about the roles their students play within the peer ecology. For example, if a teacher perceives a child to be victimized early in the school year, the teacher might be more likely to continue perceiving the child as victimized through the school year, in comparison to children's own reports or peer reports. Peer reports yielding the lowest stability was also not surprising, given both conceptual and methodological considerations. Peers in elementary school are at a developmental stage characterized by constant change. For peers in 4th grade, their social construal of the peer ecology may not be as accurate or enduring as might be evidenced in older peers. Further, extant work suggests that out of the three informant sources, peer-reported victimization does not appear to predict a clear trajectory of victimization (e.g., Biggs et al., 2010).

Though I expected *Stability* to be the "highest bar" in regards to stringency for meeting the elevated cutoff (since the highest level required elevated victimization across all three time points), I was surprised that *Cross-Informant Agreement* was the most stringent parameter at the highest level (i.e., single-time point agreement between 2 or 3 informants regarding elevated victimization scores). The rates were very low for all three informant sources to converge on a child experiencing peer victimization (T1 = 0.9%; T2 = 0.7%; T3 = 1.8%). The rates were somewhat higher for agreement across two informants (T1 = 7.6%; T2 = 6.1%; T3 = 6.7%).

These scores provide support for the idea that different informant sources are reporting on unique, often non-redundant information about children's peer victimization experiences—particularly for *elevated* victimization.

Relations Amongst the Peer Victimization Indices

When examining the relations among the parametric indices, as hypothesized, all indices were positively correlated with each other. However, the strength of the relations varied widely, from weak to strong (*r* range = .11-.84). These findings suggested that though related, the indices appear to be measuring somewhat different constructs. This is not an unimportant point, considering that there is limited consensus for: a) how best to assess peer victimization; b) which informant sources should be the primary focus for researchers; c) which parameters predict more harmful victimization; or d) which parameters predict the greatest risk for internalizing psychopathology. Given that the parametric indices were not perfectly correlated with each other, I surmised that they might also yield differential predictive utility for internalizing concerns.

As expected, the indices that were most highly correlated with each other were those that shared an informant source (e.g., *Mean Level-Self* and *Stability-Self*). For both *Mean Level* and *Stability* parameters, teacher and peer indices were moderately correlated to each other. The results indicated that teacher and peer-reported indices yielded stronger positive relations than either one did to self-reported indices. These findings suggest that there might be a distinction between what children themselves perceive to be victimization and what other informants might observe. Alternatively, given the stronger relation between peer and teacher indices, *other* informant sources might be more likely to report on aspects of victimization that might be more overt or visible. In contrast, self-reported victimization (both for *Mean Level* and *Stability*

indices) was weakly correlated with other informant sources. Thus, self-reported victimization might capture aspects of victimization not explicitly conveyed to other informant sources. It is possible that elementary school children are more accurate reporters of their own victimization experiences than they are about peers' experiences. Further, it is possible that for some children, self-reported victimization scores could be reflective of perceived (rather than experienced) victimization.

Cross-Informant Agreement indices yielded moderately to moderately strong relations to all other indices. However, contrary to expectations, *Cross-Informant Agreement T3* was not more strongly related to other indices. Of all other indices, *Stability-Teacher* was more strongly related to *Cross-Informant Agreement* indices (*r* range = .61-.65). In other words, higher stability in teacher-reported victimization was more strongly associated with greater agreement across different informant sources—regardless of time point. This makes sense given the greater proportion of children meeting *elevated* scores in teacher reports—which also influences the generation of the cross-informant indices. Alternatively, it could also mean that teachers might provide a unique perspective that might be more likely to overlap with both peer- and self-reports.

Peer Victimization Indices as Predictors of Internalizing Functioning: Bivariate Results

When examining the parametric indices in a vacuum—that is, evaluating solely the bivariate predictive relations between indices and internalizing outcomes—all indices (except *Stability-Teacher*) positively predicted children's T3 internalizing outcomes. Overall, these findings supported the hypothesis that the parametric indices would be predictive of internalizing outcomes at the end of the school year. Though significant, most results were modest (*Mean Level-Teacher*, *r* = .114; *Mean Level-Peer*, *r* = .096; *Stability-Peer*, *r* = .091; *Cross-Informant*

Agreement-T1, *r* = .179; *Cross-Informant Agreement-T2*, *r* = .202). However, three indices stood out as more robust predictors of internalizing maladjustment at the bivariate level: *Mean Level-Self* (*r* = .528); *Stability-Self* (*r* = .404); and *Cross-Informant Agreement-T3* (*r* = .316). These bivariate patterns supported the hypothesis that *Mean Level-Self, Stability-Self,* and *Cross-Informant Agreement-T3* would be the best predictors of internalizing maladjustment.

Self-report indices. These findings indicated that self-reported victimization appears to be more predictive of internalizing outcomes than teacher- or peer-reported victimization. Considering various frameworks proposing mechanisms that might explain the link between self-reported victimization and internalizing dysfunction, such as attributional processes or biopsychosocial vulnerabilities, it is not surprising self-reported indices appear to be robust predictors of internalizing concerns. From a methodological standpoint, shared method and informant variance also play a role in increasing the likelihood that, at least for internalizing outcomes, self-reported indices appear to be better predictors than other informant source indices.

Though both *Stability-Self* and *Mean Level-Self* were predictive of maladjustment, *Mean Level-Self* provided the best prediction at the bivariate level. I had initially hypothesized that *Stability-Self* would predict the greatest risk for internalizing problems of all the indices. In trying to understand these results, I considered methodological and conceptual reasons for such findings. First, both *Mean Level* and *Stability* indices examined peer victimization experiences across three time points. However, while *Stability* was a more stringent index than *Mean Level*, *Stability-Self* was comprised of four ordinal levels (*None, One Elevation, Repeated, Stable*). In contrast, *Mean Level-Self* did not have such restrictions, as it was computed as a continuous grand mean score, and had a much wider range in values. Thus, *Mean Level-Self* was allowed

significantly more variability, which could reflect better fit when predicting internalizing outcomes. Perhaps if I had constrained *Mean Level-Self* variable to four levels (e.g., categorizing the values into four percentile ranks), *Stability-Self* might have yielded the better prediction for internalizing problems. This might have allowed for a fairer comparison between the two indices, as *Mean Level-Self* would now, in this hypothetical scenario, be capable of differentiating between high and low mean level victimization. In doing so, I might be able to better compare whether high mean level victimization is more predictive of internalizing risk than high stability. However, this type of analysis was not the purpose of the current study, but might be important to examine in future studies attempting to continue parsing out the relative internalizing risks associated with these parameters.

Second, another important consideration is that stability indices required meeting a particular threshold (mean greater than or equal to 1 *SD*) to be included, at each time point. However, once the mean score has surpassed this threshold, the score does not vary at that time point. Thus, a child at 1 *SD* above the mean would still hold the same score as one that was at 1.5 or 2 *SDs* above the mean. What this means, is that once a child has met an *elevated* threshold, the current operationalization does not allow me to examine the level of severity of those experiences. This approach to operationalizing the parameters was done purposely, so as to reduce the overlap—as much as I could—between victimization stability (regardless of level or intensity) and overall level (regardless of duration or needing to surpass a specific cutoff), so that I could distinguish distinct parametric constructs. Perhaps, future work might explore a number of questions that arise from these—such as: a) what is the best approach to index these parameters; b) are youth who evidence higher levels of victimization the same as those experiencing stable victimization; c) is there an incremental risk for youth who experience both

high level and more stable victimization; and d) what are the conceptual mechanisms that explain differences in risk conferral between high level and stable victimization—among other questions. When discussing the multivariate results, I explored possible conceptual reasons for these findings. Suffice to say, the current findings provide preliminary evidence suggesting that, at the bivariate level, continuous mean victimization scores across an academic year predicts internalizing dysfunction better than ordinal stability values of self-reported victimization.

Teacher-report indices. *Mean Level-Teacher* (r = .13) was weakly associated with internalizing maladjustment at the bivariate level. However, *Stability-Teacher* was not associated with internalizing maladjustment. There are a few interesting implications for these findings. First, teacher-reported victimization appears to matter more when their scores are allowed to account for frequency or level of the victimization. In other words, children appear to be at risk for internalizing maladjustment when teachers report they are experiencing overall higher level of victimization. In contrast, meeting a particular teacher-reported threshold of victimization over the course of a school year was not predictive of internalizing risk. Implicit here is the idea that the type of information gathered by school teachers reflects internalizing risk in the level of those experiences rather than in the stability of those experiences. One could infer that teachers reporting a severe problem at one time point or two—even if not stable across the school year—could reflect significant risk, and might not necessitate elevations over a whole year to reflect internalizing problems.

Second, I believe it is important to consider the context of teacher reports. I could imagine that teachers, having 20 or more students in their classroom, might have a difficult time completing measures for all their students. Thus, it is likely that they might complete the measures based on one of two primary strategies: a) what they most recently observe in their

classroom in temporal proximity of the assessment; or b) reputational biases over the course of the year. For the first assessment, teachers are most likely to depend on the first strategy to make these nominations. For T2, teachers might use one of the two strategies, and for T3, they might be more likely to base their reports on what they have "known" about their students over the span of a school year. Implied here are a number of possible implications to the current study. Teachers can only report experiences that: a) they themselves observe in their classroom; b) children self-disclose about their own experience; c) peers self-disclose about others experiences; d) parents report to teachers; or e) other adults report to teachers. Given that children and peers tend to be reticent to disclose victimization to adults (for a number of reasons), teachers are likely basing their nominations on their own observations or their reputation. By the end of the school year, teachers are much more likely to have developed a schema about the students in their classroom. Thus, it is possible teachers might not accurately report the victimization that is occurring at the end of the school year. For example, if a teacher initially noticed a child to be victimized in early Fall, they might still assume these experiences are ongoing even if they have ceased, and might report them as experiencing victimization at the end of the school year. Since the highest level of *Stability-Teacher* requires all three time points to be elevated, it is possible that meeting that mark for teachers might be too stringent, and not accurately representative of children who are chronically victimized

Third, a related point is that children's reputation as victims (or non-victims) might remain relatively unchanged throughout the course of a school year. If teachers are basing their nominations of students as victims on children they observed struggling during the first half of the school year (T1, T2), it is possible that their nominations might remain relatively stable throughout the span of the school year. This idea might be supported by the finding that teacher-

reported victimization yielded the highest rates of *elevated* victimization compared to self-reports, and more than twice as peer reports. As such, if students' trajectory of victimization is actually less stable than that perceived by teachers, they might be missing children who have left a victim status by the end of the school year, or noticed children who have become increasingly victimized over the second half of the school year. Perhaps, the important factor of stability is the existence of more than 1 elevation over time, rather than the need for it to be across all elevations, and that this could be particularly important for teachers. If I were to reconfigure the construction of the *Stability* index, I would combine *Repeated* (2 time points elevated) and *Stable* (3 time points elevated), and then examine whether children's internalizing risk varies whether children evidence no elevated scores, one elevated score, or more than one elevated score—particularly for teacher-reported victimization.

Fourth, teachers are likely to be basing their reports more on children's overt victimization experiences (e.g., verbal altercations, physical attacks) as these are the experiences they can visibly observe—rather than more covert forms of victimization (e.g., exclusionary, relational). If so, it is possible that students who tend to evidence higher levels of internalizing concerns might be those who experience more covert victimization experiences. On this point, it is plausible that covert victimization experiences might yield greater risk for children to internalize the victim label or schema; and further exacerbate the development of depressive or anxious psychopathology.

Fifth, it is possible that teachers are primarily basing their nominations on children who report their victimization experiences to them or other school personnel. If this is the case, I considered the possibility that there could be a significant difference in internalizing functioning between children who report victimization concerns to an adult who might help, versus children

who do not report victimization experiences in fear that: victimization might worsen; the adult might not believe them; or the adult offers no help (Aceves, Hinshaw, Mendoza-Denton, & Page-Gould, 2010; Mishna & Alaggia, 2005).

Sixth, it is possible that teachers could be basing their nominations strictly on behaviors and experiences witnessed in their classroom. Classrooms tend to have increased supervision and structure, in comparison to other environments, and thus, it is possible there is significantly less victimization occurring in the classroom than other settings (Fite et al., 2013). If so, teachers might be missing youth who are victimized in other settings (e.g., gym, cafeteria) and at risk for internalizing concerns. Extant works suggests a number of hotspots (outside the classroom) that could serve as high-risk, high-reward settings for children at risk for victimization (Craig et al., 2016).

Seventh, it is possible that teachers are capturing a subgroup of youth who are victimized, but not necessarily as much at risk for internalizing concerns. Teachers might be capturing the children who are controversial, or experiencing both victimization from peers but also endorsing reactive aggression or externalizing behaviors toward peers. If this is the case, it is plausible that teacher-reported victims might be at risk for other types of psychosocial outcomes (e.g., academic engagement, aggression, somatic concerns) rather than internalizing concerns. Regardless of the rationale, however, it seems important that long-term teacher-reported elevated victimization—in the current study—did not identify children who are both victimized and at risk for internalizing psychopathology. This finding has significant implications for both research and practice, given current methodology used to investigate and intervene with children's victimization and psychosocial experiences.

Peer-reported indices. *Mean Level-Peer* and *Stability-Peer* were weakly associated with internalizing maladjustment at the bivariate level, with *Mean Level-Peer* (r = .10) and *Stability-Peer* (r = .09) providing comparable results. Though weak, these findings suggested that peer-reported victimization might play a role in internalizing maladjustment. Regardless of whether peers identify victimization at a high level, or at a sufficiently elevated level over time, peers-reported victimization could influence internalizing risk in a variety of ways. For example, greater number of peer nominations could reflect observable evidence that a child is being victimized and rejected by peers. Evidence suggests that the actual experience of victimization is predictive of a plethora of adjustment concerns. If more peers agree that a child is victimized, then it could reflect greater likelihood that that child is being perceived as a victim within the peer group's peer ecology and being victimized by peers.

As noted in the discussion, children who receive confirming evidence from their peers that they themselves are victims are more likely to evidence the problems associated with being treated as a victim, such as stigma, difficulty making and maintaining friends, and internalizing the victim label. Further, peers might be more likely to report on children who deviate from their peer norms. Thus, children identified as victims by peers might be more likely to notice and feel that they are somehow different from their peer group, which could exacerbate their internalizing dysfunction. Further, peers might have a greater tendency to notice children who are more likely to evidence difficulty responding to aggression—particularly children who evidence annoying qualities, react aggressively, signal forms of weakness, or become emotionally distressed—and such youth evidence greater risk for internalizing maladjustment.

Cross-informant indices. At the bivariate level, all cross-informant indices predicted internalizing functioning. Further, these indices were better predictors of internalizing

maladjustment than other-informants' *Mean Level* and *Stability* indices. This suggests that a multi-informant assessment at a single-time point provides better prediction of children's internalizing functioning at the end of a school year than a single-informants' mean scores or stability over time (except self-reports). Implicit here is that if scholars can only assess children at a single time point, a multi-informant approach would likely provide greater utility in identifying youth who are at risk for internalizing concerns. Further, this suggests that the visibility of one's victimization is important, in that distinct informant sources converging on agreement about a child's level of victimization at this point is predictive of risk. Of the cross-informant indices, *Cross-Informant Agreement-T3* (r = .32) was the better predictor of internalizing maladjustment compared to other time points (r range = .18-20). Given previously discussed conceptual (e.g., longer period of time for children's victimization to become more visible to more informant sources) and methodological considerations (e.g., proximity and same-time point assessment), these findings were expected.

Default predictors and T3 Mean-Self. The three indices with the best predictive utility (*Mean Level-Self, Stability-Self, Cross-Informant Agreement-T3*) provided comparable predictive utility to *T3 Mean-Self*. Unexpectedly, however, the *T3 Mean-Self* predictor yielded the best prediction for internalizing maladjustment at the end of the academic year, while teacher- and peer- victimization at T3 were weakly correlated with internalizing problems. Given shared method (i.e., self-reports) and timing variance (i.e., T3) between *T3 Mean-Self* and T3 RCADS scores, the result that this predictor would be strongly associated with internalizing scores is not surprising. What is surprising is that *T3 Mean-Self* would yield the most robust predictive utility, above and beyond *Stability-Self* and M*ean Level-Self*. Thus, this finding continues to leave a myriad of unanswered questions for the field.

For example, scholars interested in identifying victimized youth at risk for internalizing sequela might conclude that the most accurate predictor is *T3 Mean-Self*. This might imply that the best approach to determining internalizing risk might be to wait to assess children's self-reported victimization experiences until the end of an academic year. In turn, this would be problematic for a number of reasons. If I was attempting to identify children *at risk* for negative sequela for the purposes of intervention, it would be imperative to screen youth as early as possible—rather than wait until later in the school year. If I were to wait until the end of the school year, I would not be capable of impacting them at that juncture—given close proximity with summer break and transitions to another grade (which might include changes in peer group, teachers, and other social dynamics).

This finding supports the idea that perhaps, current level of self-reported victimization is a particularly important predictor for concurrent internalizing dysfunction. From this perspective, it makes sense that currently perceiving that one is experiencing peer victimization could exacerbate the likelihood that one might endorse anxiety or depressive symptoms at the same time. This might give credence to the idea that social-cognitive information processes could play a crucial role in the development of internalizing maladjustment—and may not necessarily require prolonged exposure to victimization experiences. Of import here is that I did not control for T1 or T2 self-reported victimization for these analyses, so it is possible that just because a child endorsed self-reported elevations at T3, it does not mean he or she did not experience elevations at other time points. Perhaps, another study could parse out the proportion of children who met higher self-reported peer victimization elevations at T3 compared to those evidencing higher scores at multiple time points.

Multivariate Findings

To truly evaluate the extent to which the peer victimization indices predicted children's internalizing functioning at the end of the school year, I controlled for both internalizing functioning early in the school year and demographic variables (gender, race/ethnicity). As expected, the variance explained by T1 internalizing scores significantly reduced the parameters that were still predictive of T3 internalizing functioning. As such, in this section, I focused only on significant indices (*Mean Level-Self, Stability-Self, Cross-Informant Agreement-T3*), and expanded on *additional* (i.e., not discussed in the previous section) conceptual and empirical rationales for the findings. It is important to note that inputting these indices at Step 2 yielded small ΔR^2 values. Specifically, *Mean Level-Self* yielded a 6% change in R^2, while *Stability-Self* predicted 2% change and *Cross-Informant Agreement-T3* a 5% change. Though *Mean Level-Teacher* was also statistically significant, the addition of this index to Step 2 of the hierarchical regression yielded less than 1% change in ΔR^2 from the model with the covariates—thus reducing the index's clinical utility.

Overall, the majority of variance explained in internalizing risk for these models was accounted by baseline internalizing functioning. However, even when controlling for baseline internalizing scores, both self-reported indices and T3 cross-informant index still predicted internalizing maladjustment at the end of the school year. These findings, though not surprising, gives credence to research suggesting that elevated self-reported victimization or elevated visibility across multiple informants are predictive risk for internalizing problems. Below, I discussed potential reasons that might explain the relations between significant victimization indices and internalizing problems.

Mean Level-Self. Knowing children's self-reported victimization was important in predicting internalizing outcomes—above and beyond only knowing their baseline internalizing functioning. This suggested that children's peer victimization experiences predicted changes to children's internalizing trajectory—with greater victimization over time linked to worse internalizing functioning. This supports previous work proposing that elevated victimization, particularly when indexed over the course of multiple time points, does produce significant internalizing maladjustment in children. A number of different mechanisms could explain why overall level of victimization (comprised of a grand mean of reports of frequency of victimization) over a school year could increase children's risk for problems with internalizing functioning. First, children who are victimized might initially believe that their victimization is caused by external factors ("other children are mean"; "I was at the wrong place and time"). If victimization is caused by external factors, a child might be able to make attempts to change his or her environment to improve victimization experiences. Similarly, if a child attributes victimization to his or her own behaviors ("I behaved annoyingly"), the child might begin trying different strategies to reduce the likelihood of being victimized in the future. However, frequent victimization—even when attempting to change the context or one's own behaviors—might predict changes to children's attributions about why victimization continues to occur.

Thus, children who experience frequent victimization might be more likely to attribute their victimization to internal, stable characteristics ("I am annoying"; "I am different"). Given that for most children victimization is transitory, those who evidence frequent exposure to aggression might believe that they are targeted because of some characteristic they possess. According to *attribution theory*, dispositional attributions for failure at tasks thought to be easy (e.g., navigating social environment) are linked to problems with self-esteem and self-blame. If

attributions transition from behavioral to characterological, children might also decrease (or even cease) their attempts to try to change their situations (e.g., "why would I keep trying to make them stop"). In turn, this perspective shift might predict feelings of hopelessness, and might produce behaviors that could perhaps invite future victimization. For children who do not ascribe victimization to their own internal characteristics, frequent victimization could also predict a sense of hopelessness and thoughts that escape might be difficult. Whether frequent victimization is attributed to stable internal characteristics or stable external factors outside of their control, children who make either attribution are at risk for experiencing shame, self-blame, loneliness, anxiety, and depression.

According to *attribution style theory*, children biased toward making certain types of attributions might be at greater risk when exposed to adverse experiences, such as peer victimization. At greatest risk might be frequently victimized children who: a) want to feel accepted and treated well by peers, but believe it improbable; b) want to avoid rejection and victimization, but believe it highly likely; and c) have little perceived confidence that their behavior can change their victimization experiences. Thus, in children who evidence a depressive attributional bias, frequent victimization may exacerbate attributions that lead to experiencing learned helplessness and depressive symptoms (e.g., withdrawal, sadness, loneliness).

In children more likely to attribute hostile intent to interpersonal interactions, frequent victimization might exacerbate children's perceptions that their social context is dangerous and future interactions will be negative. As such, with more frequent victimization, such youth may become increasingly anxious about future interactions (since they predict they will more often than not be negative). This over-sensitivity to threat cues is found to be linked to reactively

aggressive behaviors, distress, and frustration. Further, extant work has suggested that children who externalize and respond aggressively to peers are more likely to be rejected, excluded from peer relations, and targeted from victimization (Camodeca, Goossens, Terwogt, & Schuengel, 2002; Perren, Ettekal, & Ladd, 2012; Poulin & Boivin, 2000). In turn, engaging in reactive aggression and externalizing behaviors has been linked to internalizing maladjustment (Card & Little, 2006).

Another interesting role that hostile attribution bias might play in the development of maladjustment regards the potential for children to be biased in how they interpret neutral (or even benign) interactions with peers. For children who perceive normal or ambiguous peer interactions as negative, or ascribe hostile intent to situations in which there is known, it is likely that these children might increasingly misunderstand the intent and behaviors of peers. Thus, children who evidence a hostile attribution bias may not necessarily experience severe victimization to manifest internalizing maladjustment—it is possible that they might interpret a few negative experiences as significantly more intense, frequent, or harmful than actually observed. Thus, children with tending to make hostile attributions are at risk for negative sequela—as long as they perceive themselves to be frequently experiencing victimization (regardless of whether or not they have actually been exposed to frequent victimization experiences). Thus, frequent victimization could be interpreted as a social failure and predict that the environment will be increasingly perceived as hostile (Troop-Gordon & Ladd, 2005).

In contrast, rather than pre-existing biases influencing children's risk for maladjustment, the *victim schema* model suggests that frequent experiences of peer victimization could impact changes in children's perceptions about themselves and their role within the peer group. Children who evidence more frequent victimization could internalize their role as victims, with each

subsequent victimization experience providing contextual clues that further confirm such a label. Children who adopt the posture of a victim may do so in a manner that publicly conveys that information to peers and teachers. Further, children who adopt a victim label might be more likely to behave according to their label, and find confirming evidence from their environment to support their concept of victim. With children endorsing a negative self-concept associated with being a victim, frequently victimized youth are at risk for a range of negative internalizing problems. Further, children who adopt a victim schema might be more likely to evidence an enduring representation of themselves as victims—even when victimization itself has stopped or peers no longer perceive the child as a victim. Thus, children who perceive themselves to be victims may also be more likely to report experiencing peer victimization because that is who they perceive themselves to be (and believe others perceive them to be).

Implicit in these findings is that frequent victimization might also activate children's biopsychosocial vulnerabilities linked to internalizing dysfunction. For example, evidence suggests that adverse social experiences activate the neural pathways associated with pain. If so, frequent victimization may indicate more frequent activation of neural processes that cause enduring emotional pain. Exposure to frequent pain, without confidence that one can reduce the likelihood of future events that cause such pain, is likely to cause a sense of hopelessness and anxiety. Further, pain predicts ineffective coping strategies (e.g., withdrawal, disengagement), which may be increasingly used more when children experience frequent victimization. Such strategies are associated with the development of anxiety and depression.

Further, frequent victimization might disrupt children's stress response reactivity. In frequent victims, I expect children to evidence an increase in cortisol production and HPA reactivity, which is consistently linked to anxiety symptoms. Frequently victimized youth may

evidence permanent changes to their stress-response system, and may even begin evidencing changes to their immune functioning. Thus, children whose victimization is frequent are more likely to experience enduring physical changes. Consequently, children whose stress-response and immune functioning is comprised might be at greater risk for evidencing physical health concerns, getting sick, or somaticizing their stress. Further, immunocompromised youth might be at risk for frequent victimization—given children are likely to target youth who deviate from the norm—further exacerbating this cycle. Through this pathway, frequent victimization might also predict increased medical visits, school absences, and visits to school health personnel office—all of which reduce children's capacity to develop prosocial skills with peers and increase children's perceptions that something is wrong with them. Further, if the proportion of victimization increases (as seen in frequent victims experiencing health concerns) relative to the opportunities available for experiencing victimization, children might begin developing anxiety or apprehension about attending settings in which peer interactions are required. In summary, findings suggest that experiencing frequent victimization—regardless of stability—is predictive of internalizing maladjustment. This is consistent with other studies that find that some level of involvement with victimization is associated with negative psychosocial outcomes (Zwierzynska, Wolke, & Lereya, 2013).

Stability-Self. In this study, the stability of children's self-reported victimization was predictive of children's internalizing maladjustment—even when controlling for covariates. For this index, higher values reflected longer-term involvement with *elevated* victimization, with the highest value reflecting stable self-reported victimization across all three time points. Though enduring self-reported victimization was predictive of internalizing concerns—there is limited consensus regarding the potential mechanisms that could explain this relationship. Extant work

supports that enduring *stable* victimization could yield severe maladjustment (Browning, Cohen, & Warman, 2003), including problems with withdrawal, somatization, and low social competence (Goldbaum et al., 2003). Models find that chronic victimization is associated with greatest affective distress (Sheppard, Giletta, & Prinstein, 2016)—which might be reflecting the accumulative risk of enduring victimization on maladjustment (Biggs et al., 2010). The mechanisms previously discussed for *Mean Level-Self* that might potentially link peer victimization and internalizing dysfunction could also apply to stable victimization. In addition to previously described mechanisms, I highlighted a few other considerations below.

First, the literature links stable victimization experiences with increasing withdrawal over time (Boivin, Petitclerc, Feng, & Barker, 2010). Persistently frequent victimization likely causes children to begin avoiding social interaction and withdrawing from the peer group (Hoglund & Leadbetter, 2007)—possibly in attempts to reduce interactions that might be conducive to continued victimization. Children who interact less with peers tend to be less liked by peers, and endorse poorer self-concept and more internalizing dysfunction (Strauss, Forehand, Smith, & Frame, 1986). Thus, stable victimization not only predicts withdrawal (and accompanying loneliness), but withdrawal itself might be reflective of difficulty making friends and diminished opportunity to practice prosocial behaviors (Schäfer et al., 2004). Withdrawal—particularly if conflicted (i.e., children who fear interacting with others, but would like to improve their social interactions) rather than disinterested (i.e., children who are not interested in social interactions)—is consequently predictive of anxiety, frustration, hopelessness, and depression.

Second, evidence supports the idea that more chronic victimization is predictive of health problems compared to non-victims and transitory victims (Biebl et al., 2011). Thus, longer-term exposure to victimization could reflect changes to children's physical health functioning, with

chronic stress associated with increased vulnerability to illness. Studies have found a positive relation between chronic victimization and a number of physiologically-related phenomena. For example, chronic victimization has been linked to: parasomnias (e.g., nightmares, night terrors; Wolke & Lereya, 2014); headaches (Gini et al., 2014); nausea (Herge, La Greca, & Chan, 2015); feeling tired or dizzy (Gini, 2008); and abdominal pain (Greco, Freeman, & Dufton, 2007). Physical health problems and somatic symptoms have a significant impact on youth functioning. Children who persist as victims of peer aggression tend to feel and get sick more frequently than non-victims and transitory victims. Chronic victims also evidence more frequent visits with school nurses (Vernberg, Nelson, Fonagy, & Twemlow, 2011) and other health professionals, and are more frequently absent from school (Forero, McLellan, Rissel, & Bauman, 1999). An important consideration is that perhaps, youth already experiencing pre-existing vulnerabilities to health and somatic problems might be at greater risk for chronic victimization (e.g., Greco et al., 2007). However, preliminary work from a recent twin study found that genetic vulnerability for physical health problems in early childhood was not related to later peer victimization—but that genetic vulnerability during early adolescence, particularly for somatic complaints, *did* increase risk for victimization (Brendgen et al., 2013). Importantly, Brendgen and colleagues (2013) found that environmental factors—rather than genetic—had the greatest influence on the manifestation of physical symptoms, with social support buffering the risk that victimized adolescents evidenced health concerns. In short, chronic victimization might have a bidirectional association with health concerns—which ultimately might be one of many possible factors that link victimization to internalizing dysfunction.

Third, regardless of whether stable victimization causes change to children's internal functioning or whether pre-existing individual characteristics increase children's victimization

stability, evidence suggests individual factors (e.g., genetic, biopsychosocial) are strongly associated with short-term (Sapouna et al., 2012) and long-term stable victimization experiences (Bowes et al., 2013). Thus, regardless of the temporal association, there is a significant relation between internal characteristics, chronic victimization, and maladjustment. Further, individual factors do not have to be physiological in nature to be conducive of risk. For example, evidence suggests that children's own behaviors predict both the duration of victimization and negative sequela. Possible behaviors consistently linked to enduring victimization are: behaviors associated with reactive aggression, fighting back, or conflictive interactions (Kochenderfer & Ladd, 1997); behaviors that signal inability to defend one's self from peers' aggression, such as crying, lacking self-confidence, and submissiveness (Egan & Perry, 1998); and problems with dysregulated affect and behavior, such as being overly distressed and lacking emotional crontol (Pope & Bierman, 1999). Further, evidence suggests that behaviors that are consistently impulsive (Fanti & Kimonis, 2012), attention-seeking (Swearer Napolitano, Collins, Radliff, & Wang, 2011), and annoying (Graham & Juvonen, 1998) are linked to experiencing more enduring victimization. Supporting the concept that children's behaviors themselves might be linked to the stability of their victimization, research consistently finds that children diagnosed with Attention-Deficit/Hyperactivity Disorder (ADHD) are significantly more likely to self-report (and endorse peer- and teacher-reported) higher overall rates of victimization, both concurrently and over time (Wiener & Mak, 2008). Thus, stable victimization—and subsequent maladjustment—might also be a function of children's own behaviors.

Fourth, stable experiences of victimization might lead a child to believe he or she is unable to escape these experiences. Thus, long-term exposure to victimization has been especially linked to both learned helplessness and the development of a victim schema. A child

who internalizes a sense of helplessness is prone to patterns of behaviors and cognitions that might increase the likelihood of future victimization, and make it so that even if changes to their victimization patterns occur (e.g., cease or diminish significantly) that the child's perception of being "stuck" as a victim persists (Schäfer et al., 2005). Further, children exposed to enduring victimization might be at risk for internalization of the victim role and the activation of the victim schema—more so than transitory victims. Extant work proposes that more easily accessible schemas associated with being a victim are predictive of hypervigilance, over-sensitivity to perceived threat cues, hostile attributions, and dysregulated emotional arousal (Rosen et al., 2007). Such victim schemas become more easily accessible through the repeated exposure to adverse victimization experiences over time. Thus, children evidencing prolonged victimization who adopt learned helplessness and a victim schema might be at greatest risk for depression and anxiety.

The finding that *Mean Level* victimization provided better predictive utility for internalizing concerns than *Stability* might lead credence to *learned helplessness*. As noted earlier, both *Mean Level* and *Stability* were computed out of the same measures at the same point in time. With *Mean Level* of victimization, I captured youth who, on a spectrum, ranged from non-victimized to highly victimized over time. However, because this is based on a mean score through all time points, it is possible that children evinced increasingly higher reports of victimization—that is, it could be capturing youth who may be increasingly becoming more victimized as the year progresses, or are increasingly internalizing their role as a victim. Further, even when victimization may have decreased or desisted, self-reporters of peer victimization might perceive themselves as "stuck," unable to escape their status as a victim. Requiring children to meet an elevated threshold over time, with the idea that a child will be most at risk if

he or she has been victimized from early on in this school year, does not necessarily capture the complex dynamics at play—in that a child who meets criteria at T1 and T2 has the same score as the child who is victimized from T2 and T3. As such, further exploration of the patterns of stability will be essential in parsing out this question related to perceived "stuckness" as a victim of peer harassment. In summary, findings suggest that frequent peer victimization perceived to endure over time is predictive of internalizing concerns when reported by children themselves.

Cross-Informant Agreement-T3. *Cross-Informant Agreement-T3* was the only cross-informant index predictive of internalizing risk at the multivariate level. When controlling for initial internalizing functioning, cross-informant agreement at T1 and T2 were no longer significant predictors. This is not an unimportant finding. For example, some scholars who provide targeted interventions to victimized youth might assess victimization—even using multi-informant approaches—in the first semester of an academic year, and beginning to provided the intervention the subsequent semester. These findings suggest that, absent intervention, cross-informant agreement during the first half of the school year was not predictive of internalizing scores at the end of the academic year. Thus, such intervention approaches might identify youth who appear to be evidencing elevated risk for continued victimization, or appear to be at risk because of their concurrent elevated victimization in which multiple informants agree that there is a problem. However, this might not necessarily mean these same children will be ones who are at risk for multiple informants to continue perceiving them as victims later in the year or evidencing the maladjustment outcomes associated with victim status in the eyes of distinct informant sources. This example illustrates how scholars might identify youth who currently appear to be at risk and provide them with an intervention that might not actually be necessary (and could potentially be iatrogenic) if the child is unlikely to: a) remain a victim the following

semester; or b) evidence the negative outcomes associated with victimization that scholars are hoping to prevent in the first place.

One important consideration, is that I weighted equally the combinations of distinct informant sources when generating the indices. Perhaps, future work might look to parse out the risk of internalizing outcomes by the different combinations of informant sources: a) child and teacher reports; b) child and peer reports; and c) teacher and peer reports. Parsing out the relative risk of these to predict internalizing maladjustment could provide further insight into which combination of informant sources is most predictive of risk. Further, one of these combinations might be more strongly associated with internalizing outcomes—and thus it might be essential to continue exploring these parameters. Better understanding this parameter could also provide insight into the benefits relative to the cost of gathering such data for screening and intervention purposes.

Nevertheless, multiple informants converging on a child's victim status at T3 was significantly and moderately predictive of maladjustment. Thus, at T3, convergence of multiple perspectives of children's victimization was more predictive of children's concurrent internalizing problems than: a) convergence at other time points; b) overall level of victimization as indexed by peers and teachers through the school year; and c) stable victimization as indexed by children themselves, teachers, and peers. Further, the visibility of one's victimization is important, in that distinct informant sources converging on agreement about a child's level of victimization at this point is predictive of risk. Importantly, greater agreement between informants could imply that children are indeed experiencing (rather than simply misperceiving) acts of aggression from peers at this time of the year. Given the relatively low agreement found in other studies across informants, it is possible that agreement across distinct sources at T3

could reflect risk that children could be accumulating the incremental risk from different forms of victimization and different trajectories predicted by the different informant sources. Implicit here is that more visible victimization at T3 could also reflect more severe victimization.

If multiple informants agree that a child is victimized at the end of the school year, it may be indicative that the child might: a) be experiencing prolonged victimization (longer exposure to victimization might provide greater opportunity for multiple informants to become aware that the child is being victimized); b) have publicly adopted the role of victim within the peer ecology; c) be experiencing limited opportunity to practice prosocial skills (if greater number of peers are rating the child as someone that is victimized, implying more peers do not like and mistreat the child); d) be evidencing decreased opportunity to change his or her social reputation; or e) be experiencing more overt and harmful forms of victimization—among other mechanisms. These would be particularly salient for T3, since children would have had a whole academic year to learn about each other, for teachers to learn about their students' social functioning, and for roles and reputations within the peer group to stabilize.

Other informant source indices. When adding the covariates and baseline internalizing functioning to the model, *Mean Level-Teacher* was still predictive of internalizing maladjustment, albeit evidencing a weak predictive relation. For *Stability-Teacher*, adding these covariates actually increased its predictive capacity from non-related to weakly associated. For the stability index, one of the covariates must have been acting as a suppressor—and will be examined when discussing the potentially moderating relation between demographic covariates and internalizing risk. While teacher reported victimization provided a significant model, the variance explained increased approximately 1% in these models—thus denoting limited utility of teacher-reported indices (as operationalized in this study) in predicting internalizing problems.

Further, I provided earlier possible reasons as to why teacher-reported victimization might not have served as a strong predictor for internalizing dysfunction in this study.

Peer-nominated indices, once controlling for demographic factors and internalizing functioning at baseline, were now no longer associated with internalizing problems. It is important to review how peer-reported indices were generated. While *Mean Level* self- and teacher-reported indices were comprised of scores reflecting the level of perceived victimization frequency, *Mean Level-Peer* scores were computed by: a) tallying the number of peer nominations per each victimization type (physical, verbal, relational) at each time point; b) computing a weighted, standardized mean score per each time point; and c) computing a grand peer-nominated victimization mean across the three time points. Thus, high level of peer-reported victimization signaled a greater number of peers that nominated a child as experiencing different forms of victimization. Importantly, scores provided insight into the proportion of peers who not only perceived a child as victimized but also ranked that child as a victim. Implicit in the operationalization of peer indices is that higher levels reflected greater peer agreement (or visibility) of a child's victimization experiences. The findings suggested that, in the current sample, level of peer agreement and visibility did not predict internalizing dysfunction.

There could be a variety of reasons for why *Mean Level-Peer* did not predict internalizing outcomes. First, the approach used to generate the peer index—though consistent with how other scholars have indexed peer-reported victimization—did not reflect differences in children's perceptions of intensity of victimization. For example, high scores captured youth who had more nominations. However, given that peers were allowed to nominate three children as victims per each victimization type, the approach did not account for how peers might rank children's experiences. While it is possible that greater number of nominations could predict harmful

involvement with victimization, it is also possible that a smaller number of peer nominations that represent the level, severity, or intensity of observed victimization experiences could more accurately reflect children's risk for maladjustment.

Second, peers might be more likely to notice victimization experiences that are more overt, such as physical or verbal victimization. Evidence suggests more visible victimization tends to occur at lower base rates. Assuming this idea is accurate—with less opportunities to notice overt victimization, peers might be at a disadvantage compared to other informant sources in not only accurately reporting on victimization experiences, but also on predicting their internalizing outcomes. Not surprisingly, evidence suggests that sometimes peers underreport victimization events, perhaps because of a lack of awareness or maybe because there were not present when the victimization occurred (Card & Hodges, 2008).

Third, a related concept is the possibility that forms of victimization that might not be easily perceived by peers could be more predictive of *internalizing* risk than the aspects of victimization captured by peer reports. Evidence suggests that self-reports better capture the risk for internalizing maladjustment, perhaps because they are more sensitive to identifying forms of victimization that might be more insidious. For example, self-reported victimization tends to better identify relational victimization, which is associated with greater loneliness (Zimmer-Gembeck, Trevaskis, Nesdale, & Downey, 2014). Similarly, other scholars find that covert and relational targeted peer victimization are better predictors of negative self-cognitions and depression—compared to overt or physical victimization (Cole et al., 2010). In contrast, evidence is mixed about the capacity for peer-reports to significantly predict them (Bouman et al., 2012). For example, studies have found that peer-reported victims evidence lower levels of

self-blame, loneliness, and anxiety compared to self-reported victims (Dawes, Chen, Farmer, & Hamm, 2017; Scholte, Burk, & Overbeek, 2013).

Fourth, high scores in *Mean Level-Peer* likely reflect youth who are perceived to be experiencing victimization by multiple peers. Thus, youth high in this index are those most likely to have developed a reputation for being victims, and likely experiencing the social problems associated with such a reputation (e.g., low social preference, peer rejection). Since peer-reported victimization did not predict internalizing maladjustment, it is possible that children were not accurate reporters of the children in their classroom who are most victimized and reject. Even with specific instructions on how to complete their measures, it is not clear what strategies classmates ultimately used to make their decisions about the role each child played when making their nominations. Following this train of thought, when asked to identify children to play the role of a child who experiences victimization, it is possible classmates simply nominated children they did not like—rather than children who actively experience victimization. For example, peer reports more closely align with reports of externalizing behaviors and impulsivity (Fanti & Kimonis, 2012). Thus, potentially capturing children who evidence a host of other types of problems, compared to other informant source reports. For example, studies have found that peer reports provide most accurate predictions for children who engage in aggressive and externalizing behaviors (Clemans, Musci, Leoutsakos, & Ialongo, 2014), as well as for victimized youth experiencing social skill problems (Fox & Boulton, 2005).

Finally, it is possible that social rejection and peer nominated victimization might not be predictive of internalizing risk—though there is substantial extant evidence to refute this concept. A more nuanced explanation could be that peer-reports of victimization in elementary school might not be as predictive of internalizing functioning, but they might be more useful in

the future. For example, a recent study found that elementary-school peer-nominated victimization was unrelated to children's high-school adjustment; however, high-school peer-nominations of victimization were negatively associated with teenagers' internalizing adjustment (Smithyman, Fireman, & Asher, 2014). Thus, for internalizing risk—peer reports of victimization during elementary school might not be predictive of internalizing dysfunction.

However, it is important to note that there could be instances in which other informant sources may be good predictors for internalizing maladjustment. For example, I believe that if internalizing problems were most strongly associated with experiencing somatic symptoms or being absent due to poorer immune functioning, then perhaps other informant sources might be good predictors of internalizing maladjustment (as peers or teachers could begin noticing the child who complains about somatic concerns or is "sick" often). If victims develop a reputation for these problems, and these problems are known to exacerbate internalizing problems, then perhaps other sources might be important predictors. Nevertheless, the evidence points to internalizing maladjustment being *most strongly* associated with self-reported experiences of victimization.

The Role of Gender and Ethnicity

Base model. When examining the base models between demographic covariates and internalizing maladjustment, I found that gender was significantly associated with maladjustment (with girls endorsing greater risk for internalizing problems) and no relation between race/ethnicity in internalizing outcomes (there was no difference between Non-Hispanic White or Hispanic/Latinx in risk for internalizing maladjustment). That girls evidenced greater risk for internalizing problems than boys was expected, given the robust evidence suggesting that though mixed, findings typically support that girls evidence more problems with internalizing

adjustment than boys—particularly when exposed to adverse childhood experiences. That Non-Hispanic White and Hispanic/Latinx children did not differ in internalizing outcomes was surprising—even with mixed evidence—given studies typically finding that Hispanic/Latinx youth tend to report less victimization. However, it is important to note the assessment team did not assess cultural factors (e.g., level of acculturation, *familismo*) that could potentially differentiate unique types of Latinx that might evidence distinct risk trajectories.

Moderation. ***Gender.*** The role of gender on the relation between peer victimization predictors and internalizing maladjustment was important—but only for self-reported victimization. That is, for children who reported about their own victimization experiences, gender mattered in predicting the relation between their victimization and adjustment outcomes. For the T3 single-time point assessment, there was no significant difference between girls and boys in their internalizing scores at low levels of self-reported victimization. In contrast, at high levels of self-reported victimization, girls endorsed significantly higher scores of internalizing problems. Thus, girls evidence a steeper slope than boys when examining the relation between victimization and maladjustment—but only in self-reports. A number of factors might explain this interaction.

First, it is possible that girls who experience more frequent or severe victimization are at risk for worse adjustment outcomes. Said in other words, the impact of more frequent victimization is most detrimental to girls. There is some extant work supporting this notion—that at high severity or level of victimization, girls experience more risk. A few conceptual rationales have been provided for these findings. One is that for girls, social engagement and peer relations are more salient factors associated with positive functioning and satisfaction. Thus, inability to navigate social interactions well may reflect a failure to do something normative, which might

cascade into an attributional and motivational trajectory predictive of internalizing maladjustment. Further, extant work suggests that victimized girls are at greater risk for being pushed toward deviant peer groups—of which involvement is known to exacerbate externalizing and internalizing problems. Relatedly, girls at higher victimization levels appear to be more deviant than their peers—such as engaging in behaviors not typically expected from girls—and might be more likely to internalize that they are different and non-normative. Another potential explanation could stem from the two-culture theory—which suggests that youth develop their unique gender-stratified norms—in that boys might come to accept aggression as more acceptable than girls. In such cases, girls might be more susceptible to the negative sequela at high levels of peer victimization, particularly if they consider aggression to be unacceptable.

What is interesting is that the role of gender on peer victimization's risk for internalizing is only found in the self-report indices. The same pattern is found for *Stability-Self*—girls and boys do not differ at low stability levels (i.e., children who do not endorse a self-reported elevation at any of the time points), while at high stability levels girls evidenced significantly greater risk for internalizing dysfunction. Whereas boys did evidence risk for maladjustment at high levels of self-reported victimization at T3, boys at high stability did not endorse significantly different risk for maladjustment than boys at low stability. These findings suggest that self-reported victimization, when stable, is highly detrimental for girls but not as impactful for boys. It is possible that girls are at greater risk than boys for manifesting a learned helplessness state or adopt the victim schema, particularly when exposed to victimization over time. Thus, girls who self-report victimization over the course of an academic year are at particular risk for endorsing problems with anxiety or depression by the end of the school year. In contrast, boys who endorse elevated victimization throughout the year, do not appear to

endorse difference in risk. This suggests that scholars should particularly pay attention to girls stuck as a victim over time.

Another interpretation of these findings is that boys experiencing persistent and stable victimization might be less likely to report the adjustment problems they are experiencing. Perhaps, girls stuck as victims over time might be more open about their internalizing difficulties—and might be more likely to seek support from others. Boys, on the other hand, might be more likely to react aggressively—or withdraw—and thus might be less likely to seek help or report their experiences (Aceves et al., 2010; Dodge, Coie, & Lynam, 2006). Though completing a standardized measure on internalizing problems (RCADS) does not equate help-seeking behaviors, it is possible that for fourth grade youth—and in particular, boys—the act of disclosing on a sheet of paper that they have been experiencing problems with adjustment could signify help-seeking behavior or admittance of the role of someone who is different, experiencing problems, or not adhering to the group's perceived norms (e.g., "boys are not supposed to cry"). Thus, this idea suggests that perhaps, stably victimized boys are underreporting their internalizing difficulties—rather than actually experiencing significantly less detrimental effects at the same level of stable victimization as girls.

Another possibility is that, rather than boys evidencing less internalizing risk at higher levels of victimization, it is possible that the opposite could be true: that girls who perceive themselves as victims (whether or not it is an accurate representation of their victimization level), are also more likely to report internalizing concerns. Thus, girls who believe they experience worse treatment by peers have the worst adjustment outcomes. This is important because we did not observe children's experiences at school. Given evidence suggesting that even perceived victimization can be harmful, and that there are risks associated with biases about

how one interprets interpersonal interactions and the attributions made about such events, it is possible that girls who ascribe more hostile intent to peer behavior, endorse a pessimistic attitude toward their perceived social failure, believe they cannot escape such events, and adopt a victim schema might be at greater risk for internalizing maladjustment. Finally, there was no gender interaction for any of the other informant sources (teacher, peer) or cross-informant indices.

Race/ethnicity. Though there was no significant main effect of race/ethnicity on internalizing maladjustment, when added to the victimization models, I found a significant interaction—but only for peer-reported victimization. This was wholly unexpected and has significant implications. In attempting to parse out what this means I will summarize the findings: at lower levels of peer-reported victimization over the course of the school year, Hispanic youth tend to have similar or lower levels of internalizing concerns as do Non-Hispanic White, but as peer-reported victimization increases, Hispanic youth tend to increase likelihood of internalizing concerns; the pattern is opposite for Non-Hispanic White, who evince the same level of internalizing concerns regardless of whether they are experiencing high or low peer-nominated victimization. In other words, when children are nominated as victims by their peers, if the victims are White, they are not more likely than White children not experiencing victimization as perceived by peers to report problems with internalizing problems. On the other hand, when peers identify a victim who is Hispanic, the victim is much more likely to experience problems with maladjustment.

First, though not part of the scope of this study, I considered whether there might exist a gender by race/ethnic interaction, in which Hispanic youth generally would be more likely to discuss problems related to victimization and their feelings, while White boys being significantly less likely than White girls or Hispanic boys to want to discuss their internalizing concerns or

report problems related to their thoughts and feelings. However, if this was the only case, I would have found the same pattern across all indices. As such, there is something unique regarding the peer raters in this moderation relation.

Second, I considered that maybe children who tended to experience higher levels of internalizing concerns (and possibly with overt behaviors that followed, such as crying or withdrawing), were more likely to be perceived as victimized by peers (e.g., "that kid cries often, so he must be bullied by others in my class"). This is a possibility, but given that peers in the parent study only identified children whom they like to play with most and least, who they like to sit with and talk to at lunch, who is liked most by the teacher, and who can play the part of someone who gets bullied, it would be difficult to tease apart the idea that children's perceptions and attributions of others' behaviors could influence their belief that they are more victimized. This is considering the possibility that Hispanic youth might be more likely to report and behave in a manner consistent with how they feel (e.g., more open to emotional vulnerability) than their Non-Hispanic peers.

Third, I considered that Hispanic youth might be more sensitive to the effects of peer victimization than White youth. A few possible interpretations—which could be examined in future studies—for why Hispanic youth might evince greater internalizing concerns include: a) they might feel more socially isolated (which could increase risk for internalizing concerns); b) they might not have the language skills to interact well with others; c) there might be cultural barriers to fostering protective friendships; d) they might feel disconnected from teachers or adults who do not share an ethnic or language match; e) they might have learnt withdrawal and inhibition at home as a protective behavior from a potentially hostile or unfriendly environment; f) they might be more likely to be experiencing other early life stressors (e.g., domestic violence,

physical abuse) or traumatic experiences—particularly salient for participants from undocumented families; or g) they might actually be experiencing school-based discrimination or racism.

Another explanation for this finding is that peers tend to notice their classmates who are different or deviate from the norm. Hispanic youth, in the U.S., might already be reflective of deviancy from the mainstream norms, and thus more likely to be considered deviant. This means that Hispanic youth who are identified as victims by their peers might be more likely for continued and targeted harassment, which might be more conducive to the development of internalizing psychopathology. Further, it is possible that peers are reporting on youth who are evidencing more overt and visible forms of victimization. Perhaps, youth who are identified as victims by peers are not only experiencing peer victimization, but also racially-motivated violence and discrimination. Such youth, might be at greater risk for endorsing psychopathology than White youth who evidence buffers from some of these factors.

Another potential explanation is that for Hispanic youth, who might already feel different, deviant, or marginalized, the process of victimization by peers might be particularly detrimental. Since previously discussed, peers tend to be better at noticing more overt forms of victimization (e.g., physical, overtly verbal), as well as behaviors that are annoying, non-normative, or reactive. Thus, being identified as a victim by peers might reflect significant adjustment problems for Hispanic youth—such as greater dysfunction in their capacity to make friends and protective relations; practice skills necessary for navigating their environment; and experiencing loneliness.

Such findings could also reflect other problems that are culturally-bound. For example, extant work suggests Hispanic youth are prone to *familismo* and *simpatía*. That means they

might be more likely to place a significant importance to in-group relations, expect positive and prosocial interactions from peers, and believe that interpersonal relations are salient to one's functioning. Thus, for Hispanic youth, having peers converge on their victim status is likely clashing with their values and customs associated with social experiences. Peer-reported victimization might also exacerbate pre-existing worries and anxieties (e.g., "they notice I have an accent"; "they don't think I'm smart enough"; "I look different"; "will I be able to adjust to life in the U.S.") associated with their cultural experience.

Another potential interpretation for these findings is that perhaps Hispanic youth are more likely to disclose their experiences of internalizing problems than White youth. Culturally, Hispanic and Latinx communities tend to be more accepting of displaying emotion and emotional responses than mainstream White American culture. Thus, this might be one of the reasons why at high levels of peer-reported victimization, Hispanic youth endorse greater internalizing problems. Perhaps, it is not that they are experiencing worse internalizing outcomes, but maybe that White American youth—when experiencing adversity and negative outcomes—might be less likely to disclose that they are experiencing such problems (and report the same level of internalizing outcomes as low peer-reported victimization). However, this does not explain why the pattern is only found in peer-reports of victimization.

On the other spectrum, I am not sure why Non-Hispanic White youth evinced lower internalizing concerns relative to higher victimization experiences. One possibility is that at greater levels of victimization, Non-Hispanic White youth: a) might be seeking more support; b) might have told an adult and could be receiving help; c) might have protective friendships, curbing the negative impact of peer victimization; d) might actually be less sensitive for internalizing concerns than Hispanic youth—though could be evincing concerns related to other

psychopathology; or f) might actually be experiencing internalizing concerns at the same rate as Hispanic youth, but could be underreporting for a variety of reasons (e.g., do not want to be perceived as weak, reporting could negatively impact me).

A final thought regarding ethnicity and peer nominations—I did not identify who the peer raters were in regards to their own ethnic composition. In other words, it is not clear whether one's own ethnic group influenced whether a child was more or less likely to nominate a peer as a victim. This is not unimportant, given extant work finding differences in the prevalence of victimization and the negative outcomes of victimization relative to the distribution of different ethnic groups youth within the classroom.

It is important to note that when examining peer-reported victimization, it was not predictive of internalizing maladjustment in this study. However, these findings suggest that when inputting race/ethnicity into the model, that there existed significant ethnic differences in the relation between victimization and maladjustment. Thus, these findings suggest that scholars should indeed pay attention to the role that ethnicity plays in victimization and maladjustment—particularly when utilizing different informant sources. Importantly, further work should examine why peer-reported victimization was particularly predictive of internalizing concerns for Hispanic and Latinx youth in this sample.

As such, it appears premature to interpret too closely these findings, without further examining and teasing apart other potential parameters, such as subtype of victimization, proportion of ethnic distribution, peer informant factors (e.g., status as protective friends, internalizing functioning, victimization experiences, bullying experiences), and setting in which victimization occurs. The current study sought to begin preliminarily teasing apart these nuanced characteristics of peer victimization—future work should focus on the incremental risk that the

current parameters (and others not evaluated or measured in the study) have on internalizing functioning and, more broadly, children's risk for maladjustment.

Limitations

Though the current study had definite contributions, it also had a number of methodological and conceptual limitations. First, the most obvious is the limitations of secondary data analyses. Though data collection had been previously undertaken by my team and I, and was collected with purposeful consideration of key research questions, the current study evolved beyond its original inception. As such, some answers to questions posed by the current paper were limited to the data collected, and could necessitate further exploration via new data collection. For example, the current work was unable to adequately compare the intensity of victimization to the stability of victimization—given the method and questions asked of children, teachers, and peers. As a proxy for intensity, I evaluated the mean frequency of victimization experiences, which gives some insight into the level of victimization occurring, though not necessarily able to tease out what peak intensity of victimization was in children.

Second, though I generated the parametric indices using a defensible criterion threshold (for the threshold-specific indices), it is possible that the criterion used was not valid. Studies have found that children at elevated or stable victimization experience comprise 1.5% to 16% of a sample. However, when comparing the literature to my higher levels of threshold-specific victimization indices, I found similar rates of elevated victimization. As such, these "elevated" scores fit within the field's recommended range of children experiencing heightened victimization.

Third, the sample utilized is a significantly limited one in terms of age and grade range (only 4th grade students) within one school district. The parametric indices might operate

differently according to developmental level and region (e.g., urban primarily African American schools, suburban schools in high socioeconomic settings) and thus analyses can only generalize to elementary school children with only Hispanic and Non-Hispanic White youth in a relatively rural region of a south-central state. Further, though the broader sample included other demographics, the truncated sample was limited to only these two ethnic groups, given limitations in cell sizes, missing data, and limited conceptual rationale for expecting differences.

Fourth, another limitation is that in creating the threshold-specific indices—particularly focusing on *Stability*—equal score was given to individuals who reported high at conceptually different times, which could muddle the results. For example, a score of 1 (*One Elevation*) could be one student who had elevated reports at T1, T2, or T3. Conceptually, I expect the child who reported *One Elevation* at T3 to be at significantly greater risk for internalizing problems than the child who reported elevations at T1 and not at T2 or T3. For a score of 2 (*Repeated*), a child could score based on elevations at T1 and T2, T1 and T3, or T2 and T3. Evidence suggests that children who endorse different elevations across these groups might be categorized as evidencing distinct risk trajectories. For example, youth that were elevated at T1 and T2, but not at T3, could have *desisted* in victimization; those that were not elevated at T1, but elevated at T2 and T3, could be considered *emerging* victims, which possibly increases their risk for internalizing concerns; and those that were elevated at T1, not elevated at T2, and again elevated at T3 could be reflective of an inconsistent pattern of victimization—and their risk trajectories might be difficult to ascertain given the limited attention given to these potentially at-risk group of children.

Fifth, regarding timing when generating the indices, I treated victimization scores at T1, T2, and T3 with equal weight, in terms of their impact on children's functioning. However, this

is assuming a couple of things: a) it assumes that there is a temporal equivalence between time points, which is not accurate, given that T1 and T2 were both in the Fall semester (6-8 weeks apart), while T3 was in May (7 months after T1; 5 months after T2). As such, assuming that a child that evinces elevated victimization between T1 and T2 has the same risk as a child who evinces victimization from T2 to T3—with an average difference between 1.5 months to 5 months—appears to be a flawed premise. A future study should account for the temporal proximity of assessment waves to each other and from the outcome measures assessed.

Sixth, given the literature reviewed, it is apparent that a number of other potential parameters could be reflective of psychosocial risk and were not included in the current study. Most important of these seem to be the parsing out of the relative internalizing risk associated with overt versus covert forms of victimization. Further these should be parsed out by type, including physical, verbal, and exclusionary. Finally, I believe that further attention should be paid to cyber-forms of victimization—given how the internet and social media have changed the way in which children and peers relate to each other, and enhance risk for victimization to leave the school and follow children directly into every setting in which they have access to electronics and social media.

Seventh, the introduction provides a fairly extensive review of plausible mechanisms that might play a role in children's peer victimization experiences. However, given the limitations of the current study, I was unable to directly test many of these conceptualizations. For instance, it was not clear whether children who reported elevated levels of peer victimization were actually more victimized by peers—so it is important to note that what was measured in this study was children's *perceived* involvement with victimization. When collecting these data, my team and I were unable to observe interactions between children and peers, to truly differentiate between

children whose victimization reports reflected their experiences from those whose reports were dissonant from their observed experiences (e.g., children more likely to perceive neutral events as victimization or inaccurately perceive mild or infrequent events as more intense than factually occurred). As such, my team and I could not directly assess whether social information processing models accurately predicted internalizing risk. These and other conceptualizations (e.g., biopsychosocial vulnerabilities, development of a victim schema) could not be directly compared to each other in the current study. However, I do recommend future studies continue examining different parameters of victimization—as well as directly evaluating the mechanisms the scholars predict are most likely at play in conferring children's risk for internalizing psychopathology.

Eight, though I focused on internalizing maladjustment among other possible internalizing problems, I based children's internalizing functioning solely on their self-reports. It is possible that self-reports are not sufficient in determining internalizing diagnoses—and the clinical literature would likely suggest that multi-informant approaches yield more robust information necessary to differentiate from elevations in a screening tool from actual clinical levels of psychopathology. As such, in this study I focused on children themselves endorsing levels of internalizing problems, but it is important to clarify that it did not reflect *clinical* diagnoses. A related limitation is that I based internalizing problems using just a sum of a truncated version of the RCADS. However, I did not differentiate between depressive symptoms and anxiety symptoms (nor within different types of anxiety). As such, it is possible that different parameters might be predictive of different trajectories of internalizing risk. Future studies could benefit from further parsing out the outcomes, and examining how the distinct parameters predict internalizing outcomes—as well as other types of dysfunction (e.g.,

externalizing, aggression). Further, though I mentioned the strong link found between internalizing maladjustment and both self-harm and suicidality, there existed limitations to what our team could assess for within the school district. These two constructs, though crucial in determining risk, were not allowed as potential variables within our study (and thus items that reflected these had to be removed from the RCADS version the team utilized).

Finally, this study sought to examine the brief longitudinal impact of victimization on internalizing functioning. To truly assess chronicity, future studies should focus on these parameters from Spring to Fall semesters (e.g., do patterns endure over a summer, particularly for internalizing functioning) or across grades, to examine the predictive utility of enduring victimization and other parameters on long-term maladjustment.

Future Directions

In addition to addressing the limitations of this study, continuing to answer the questions posed by the current findings, and tackling some of the recommendations discussed regarding implications for research and practice—a final consideration was to provide a preliminary working model of how future directions could continue exploring the role of parameters of victimization and maladjustment. As noted, this study was a preliminary evaluation comparing different parameters to each other in their predictive risk for psychopathology. However, most of the conceptual considerations (e.g., *information processing models*) could not be directly examined in the current study.

For future studies on parameters of victimization, extant work should provide a robust conceptual framework for how the parameter could confer risk—and then actually assess both the parameter and mechanisms associated with that conceptual framework to address which mechanisms are most predictive of risk for that parameter of victimization. To highlight just *an*

example of how a future study might tackle this. First, I describe possible mechanisms that could impart internalizing risk for chronically victimized peers. Here, I propose—guided by information processing models—a brief model for how attributional processes could impart risk to stably victimized youth. Specifically, this proposed model suggests two primary risk pathways for internalizing dysfunction (Refer to Figure 7 for the proposed model).

Path 1: A peer victimization event occurs, which may activate a number of combinations of causal attributions about the event. However, youth evidencing greater risk for depressive attribution bias may be at greater risk for ascribing victimization events to internal, stable, and uncontrollable causes (e.g., "I am no good at math and that's why I was bullied"). This attribution combination appears to increase risk for experiencing negative cognitive and affective experiences, such as shame, self-blame, and worry (e.g., that the victimization will occur again). With repeated exposure to peer victimization events (and more frequent activation of the depressive style bias), this cycle is likely to begin impacting behavioral responses (e.g., rumination, withdrawal), affective and cognitive responses (e.g., feelings of worthlessness, low self-esteem), and ultimately expectancy for future experiences (e.g., failure resignation, helplessness). Over time, these experiences might become repeatedly activated via long-term exposure to peer victimization, which might ultimately result in the development of anxiety or depression.

Path 2: Alternatively, other children experiencing a peer victimization event might be more prone to making hostile attributions. This subset of youth are likely to attribute the causes of their victimization experiences to external, stable, and uncontrollable circumstances ("my classmates are bad kids"). These types of attributions typically result in affective responses associated with frustration and anger, fear, or even sadness. Repeated exposure over time to peer

victimization could exacerbate the development of these attributions and the responses that follow, which then might result in primarily two distinct (but often overlapping trajectories): a) hopelessness, powerlessness, and avoidance; or b) increasingly reactive aggressive behaviors towards peers. The former typically are associated with the development of internalizing dysfunction; the latter are often related to the development of externalizing maladjustment—which could also indirectly result in isolation, victimization, and exacerbation of internalizing maladjustment.

After having such a solid conceptual model—based on empirical findings and theorized mechanisms—I would then develop a study that could gather data on: a) children's hostile and depressive attributions; b) children's baseline victimization, internalizing experiences, and externalizing behaviors; c) children's attributions about their victimization experiences; d) children's affective, cognitive, and emotional experiences following victimization; e) children's level of hopeless and helplessness; f) children's schema about their victim role; and g) children's victimization, externalizing, and internalizing outcomes. With this framework—and directly testing the hypothesized direct and indirect pathways—I could more accurately describe the mechanisms of this model that might be most predictive of psychosocial risk. This is but one example of how to begin parsing out risk relative to the parameters examined by the study.

Implications for Research

The aim of this study was to evaluate distinct parametric indices of peer victimization and assess the extent to which they predicted risk for developing internalizing concerns. The *bivariate* findings suggested that when simply evaluating the victimization indices developed for this study and internalizing outcomes, researchers would find victimization significantly predicts internalizing functioning. This appears to be both good and bad news. The good news is that I

operationalized parametric indices that provide some level of criterion validity, as they ultimately predicted (moderately) an adjustment outcome of interest. Unfortunately, the findings also forced me to ponder the research implications of multiple different parameters potentially predicting internalizing functioning. Thus, at least at the bivariate level, findings suggested equifinality (Cichetti & Rogosch, 1996), in that different potential pathways were predictive of internalizing maladjustment.

For example, if I was interested in investigating an intervention focused on aiding children cope with concurrent victimization experiences to help reduce the likelihood of internalizing maladjustment by the end of a school year, and I wanted to screen children using Fall semester victimization data so that I could investigate the intervention in the Spring semester, I might be compelled to use a multi-informant approach administered at a single time point. However, when controlling for internalizing symptoms at the beginning of the year, the predictive utility of this screening approach diminishes to non-significant levels in predicting end of the year internalizing functioning. In this example, it is possible that even if victimization experiences were stable, and not transient for the majority of children, that internalizing symptoms are still a more robust predictor of internalizing outcomes than peer victimization. One implication here is that researchers that examine the utility of instruments to assess children's victimization experiences, and screen for and identify children for research evaluating selective intervention, might benefit from further evaluating the benefits of incorporating brief items or measures of internalizing functioning—particularly if the ultimate purpose is to impact their internalizing maladjustment.

The finding that teacher-reported victimization is not the best predictor of internalizing functioning—even at the bivariate level—was surprising. Much research supports the use of

teacher informants for peer victimization and interpersonal functioning measures at school. The supposition is that teachers might be more impartial observers of this experience, and might have a non-redundant, adult, proximal perspective regarding children's school experiences. Further, gathering teacher data is relatively easier than gathering peer nominations, and given the limited overlap across different informants in noticing the same behaviors and processes, it appears that teachers would be a good informant source. However, one implication of the findings is that further investigative attention should likely be given to teachers. This includes further evaluating what rubric is it that teachers use to rate their students, how do they base their responses, and how accurate about their observations they are for children they do not know particularly well. Further, findings suggest it might be critical to examine how reputational and historical bias impacts teachers' responses, which includes not only their observations but also other factors such as: a) who does the teacher like/dislike; b) is teacher influenced by other child behaviors (e.g., inattention, impulsivity, hyperactivity, withdrawal, aggression) when responding to these questionnaires; or c) is teacher influenced by school-related factors (e.g., number of times child gets in trouble, suspended) or absent.

Similarly, peer reported victimization as operationalized by the indices was not predictive of children's internalizing functioning. A research implication requires further evaluation of the subgroup of victims captured by children's peer nominations. Who exactly are the children identified by peers as experiencing peer victimization? If they are not at significant risk for internalizing functioning (in this sample), are they at risk for developing other concerns with maladjustment? Dissecting more closely the decisions youth make when rating children as victims by peers would be useful—not only for applied science and practice—but also for basic science evaluating children's interpersonal functioning, cognitive and informational processing,

and reputational biases, among numerous other processes. This can be further extrapolated to other psychological sciences, including but not limited to developmental psychology (e.g., when do children develop the cognitive capabilities necessary to more accurately rate observations of peers' negative interactions?), clinical psychology (e.g., can peers provide accurate information that could be useful in predicting children's psychosocial outcomes?), and social psychology (e.g., does social context matter in peers' capacity to accurately report on peers' interactions?). Another important point related to peer indices—I did not examine further who these peer-rated children were. In particular, I would recommend examining children's peer acceptance and sociometric status, whether they were controversial (e.g., had mixed nominations, with both positive and negative nominations), or had reciprocated friendships, in regards to these parameters and psychosocial functioning. Further, I would also examine the interactions between peer acceptance, peer rejection, and the peer-rated victimization indices, prior to ruling out the utility of the peer-reported parameter in identifying internalizing risk.

Focusing on the *multivariate* findings, the implication for research is that the most robust victimization parameter examined in this study was self-reported mean victimization level, and the best overall predictor (as expected) was T3 self-reported victimization. Overall, these findings highlight that if one is interested in investigating self-reported internalizing functioning, that self-reported victimization should be at least part of the investigative or screening formula. Even when controlling for early internalizing functioning, youth who self-report their victimization experiences are at risk for internalizing concerns at the end of the school year, particularly those who are enduring greater levels of victimization throughout the course of the year. Given that T3 victimization scores were the best predictors of internalizing dysfunction, research should continue focusing on improving methods for early identification of children who

are likely to get stuck as victims and at risk for internalizing dysfunction. Assessing children over a school year is not practical or feasible, and in this study, did not predict internalizing functioning better than T3 self-reported victimization scores.

Additionally, how do we bridge the gap between predictive utility while helping improve methods to accurately identify victimized children at risk for internalizing concerns? An argument could be made for further evaluating the impact of these and other victimization parameters, including peak intensity (e.g., does one intense negative experience with peer aggression increase children's risk for maladjustment?) and subtype (e.g., does the type of victimization—verbal, physical, cyber—predict children's psychosocial outcomes differently?), and exploring possible interactions between parameters that might explain incremental risk for maladjustment. Much research should focus on evaluating different combinations of easily administered measures that target multiple parameters conceptually and empirically linked to predicting youth internalizing risk.

Further, research should focus on demographic factors to better understand why youth might differ in both reporting and experiencing—which are distinct concepts—victimization and internalizing functioning. Better understanding why gender is such a strong predictor of internalizing concerns in victimized youth appears an important, targetable next step. Further, parsing out the possible factors that could play a role in the opposite patterns found between Non-Hispanic White and Hispanic youth in peer-reported victimization could help further the science examining racial and ethnic differences in children's interpersonal and victimization experiences.

Though research has continuously evaluated correlates and consequences of victimization, not only are parameters of victimization understudied but the mechanisms and

guiding frameworks for victimization are lacking. In this study, I described various potential mechanisms through which victimization could confer risk for internalizing concerns. However, there are definitely other plausible pathways for internalizing concerns, as well as other psychosocial outcomes. For example, victimization's impact on children's adjustment could be a function of: development of negative self-schemas, impacting perceived worth and blame; lack of protective friendships; lack of supportive adults and limited supervision; somatization of stress, increasing risk for illness and absences; lost opportunity for developing friendships; lack of perceived or actual safety; avoidance associated with emerging response to trauma; or a number of other factors. Ideally, future work would, focusing on parameters most predictive of risk, then pit these conceptual mechanisms against each other to determine what processes are most conducive to the development of internalizing dysfunction in victimized youth.

Findings also suggest that scholars should continue to partner with schools, teachers, and staff to improve the development of assessment and intervention approaches that better capture children's school and psychosocial functioning. Without their input, the development of measures and materials in an academic setting might be limited to constructs conceptualized in an academic setting, and could be missing important concepts and contexts occurring in the real-world school setting. The continued use of materials to assess internalizing and interpersonal constructs without the input of those embedded in the contexts evaluated could limit the utility and accuracy of such approaches. For example, rather than assuming teacher data were not useful in predicting childhood internalizing dysfunction, it is possible that the method used to gather these data was less conducive to accurate representation of their observations. As such, for the purposes of screening at-risk youth and intervening on their behalf, scholars could benefit from

continued discussion with school staff about what constitutes problematic victimization and how best to capture such phenomena.

Implications for Practice

The most obvious implication for practice is that interventionists and schools targeting victimized youth should pay attention to children's self-reported victimization and their internalizing functioning. Once children have internalized risk and experience enduring victimization, maladjustment can be significantly exacerbated—yielding significant risk for major depression, social phobia, somatic dysregulation, non-suicidal self-injury, and suicide. This reinforces current research supporting that children evincing long-term risk are at risk for internalizing concerns, and thus attention—particularly selective intervention—should be provided for children experiencing longer-term victimization.

Second, if screening and assessment decisions are currently being made solely on teacher-rating or peer-nomination approaches, I would recommend caution in hastily ruling out the possibility that combining other reports with self-report data might yield improved screening utility. Prior to this study, I have been a strong proponent of multi-informant data collection when evaluating children's school, interpersonal, and psychosocial functioning for the purposes of screening and intervention. What the current findings have highlighted for me is the need for increasing precision in the questions asked. When tasking peers to report about children's experiences, I will now be more attentive to: what type of information I am hoping to gather, and how will I best gather this data from distinct sources that might have different perspectives? Further, if an intervention I am piloting is based on teacher or peer data, how confident should I be that the findings are providing accurate, meaningful, and interpretable results? For example, if an intervention was targeting children's capacity to solve math problems, I should not expect

peer-report data to yield more (or comparably accurate) results than self-reports, and would expect teacher-reports of mathematic ability might yield the most accurate results—given having observable data on mathematic performance. Thus, if I am attempting to identify youth experiencing problems with peer victimization and at risk for negative sequela, I will need to be careful to ask the right question to the right informant source to glean the most accurate result. In this study, self-reported victimization was most predictive of internalizing risk, and thus, self-reported victimization is essential for gathering victimization information. In summary, screening for youth functionality should be consistent with the question asked and whether the informant assessed can have accurate information about the construct assessed.

Third, interventions should ensure to target girls at risk for internalizing functioning experiencing peer victimization. Though it is no surprise—given extant literature—that internalizing functioning rates vary by gender, and that girls evince elevated levels of internalizing concerns, perhaps developing interventions that target risk factors or interactions that disproportionately affect girls. Perhaps there are environmental or intrapersonal processes that place girls at increased risk, and thus further attention could focus on these mechanisms. Further, girls appeared to be evince greatest risk with longer-term victimization, relative to boys. When intervening, particular attention should be placed on victimized girls who have been "stuck" in a victim role over time.

Fourth, interventions should further target minority youth at risk for experiencing increased risk for psychopathology as a function of elevated peer-rated victimization. Further attention should be given to not only Hispanic/Latinx youth, but to other ethnic/diverse groups that might be at risk for social exclusion, rejection, marginalization, and discrimination. Given the possibility that peer-reported victimization predicts internalizing concerns because peers are

indeed identifying youth whom they are victimizing more (which in turn could lead to internalizing distress), further attention should be given to eliminate the likelihood of a mental health disparity gap occurring with diverse youth. Further, practitioners should attend to the possibility that ethnic minority youth victimized by peers might have some particular nuances associated with their victimization—which might include problems associated with racially-motivated violence, discrimination, or problems acculturating. Though I would heed caution in assuming that ethnic minority youth are definitely experiencing victimization because of such factors, I believe it is important to consider that interventions targeting ethnic minority youth might need to—on a case by case basis—adapt their intervention to address these factors.

Fifth, for practitioners, the field still lacks a useful approach to examine early risk for peer victimization and maladjustment. Though self-reported mean level and stability indices predicted internalizing maladjustment, these still required grade-wide data collection throughout the span of an academic year. As discussed previously, this might not be the most practical method for applied purposes (e.g., guidance counselor concerned about a particular student's risk status for internalizing concerns as a consequence of victimization experiences). Still, even if both self-reported indices were significant in predicting T3 internalizing, they were not significantly better than T3 self-reported victimization scores. At issue here is whether the field can improve the prediction of internalizing outcomes better than same-time point assessments—for the goal of enhancing early intervention and prevention. This is particularly important because research suggests children often do not seek or expect help from others, particularly from adults, which would make it more likely that their suffering goes unnoticed (Smith & Shu, 2000). Some victimized children do not feel safe enough to ask for help and report being afraid of the potential repercussions of disclosing these events (Slee, 1994). Research suggests that

almost half of victims do not tell their teachers they are being bullied (Fekkes, Pijpers, & Verloove-Vanhorick, 2005; Whitney & Smith, 1993), and that as children age they are less likely to report it to teachers (Oliver & Candappa, 2007). Thus, given that children are not likely to report their experiences, and that the field does not yet have a tool that can reliably identify victims at risk for longer term maladjustment consequences, it is imperative for practitioners to continue making efforts to reach and identify children victimized by peers and at risk for psychopathology—and that professionals in the school continue working with scholars to inform them on: how they find out a child is being bullied; what do they do afterwards; how do children respond to school staff intervention; and how do they currently manage victimization in their schools—among other queries. Not surprisingly, research has found that the most important predictor of successful targeted teacher interventions is awareness by teachers or school staff of the victimization experiences (Novick & Isaacs, 2010).

Sixth, the overall pattern of findings suggested that the self-reported children are likely a unique subgroup of victims who might not be as visible or vocal about their experiences, or less overtly noticeable that they are experiencing victimization. As such, it is possible that self-reported victims might struggle independently with less attention from their peers or teachers about their experiences. Thus, practitioners should continue paying attention to youth internal experiences, even if teachers or peers do not identify them as victims. In other words, though teachers and peers might be identifying a subgroup of children at risk for some level of maladjustment (not *internalizing* according to this study), if practitioners are most worried about internalizing outcomes, they must pay attention to children's self-reports. It is possible these are children who are "sneaking through the cracks", not engaging in behaviors that are noticed by

teachers or getting in trouble—but still experiencing significant exposure to victimization and the negative sequela associated with it.

Conclusion

The current study sought to explore distinct parameters of peer victimization via the development and evaluation of victimization indices. The purpose was primarily to better understand how different parameters of victimization (e.g., informant, duration) predicted children's internalizing functioning. The study found that the aspect most predictive of internalizing outcomes was children's own reports of their victimization experiences at the end of the school year. Additionally, both the overall level and elevated stability of children's own self-reports were predictive of internalizing problems. Finally, children who had a greater number of different informant sources identifying them as experiencing elevated victimization at the end of the school year were at risk for internalizing problems. Teacher and peer reports of victimization were not significantly associated with children's internalizing outcomes. Further, main and interaction effects were found for gender and race/ethnicity across the distinct indices. Girls were overall more likely to evidence problems with internalizing concerns; and for self-reported victimization, girls experiencing higher levels of victimization were at greater risk for worse adjustment outcomes compared to boys. This pattern for girls was particularly pronounced for elevated self-reported victimization that persisted throughout the school year. Though peer-nominated victimization was not predictive of internalizing maladjustment, when including race/ethnicity in the model, Hispanic and Latinx youth were significantly more likely to endorse internalizing symptoms at high levels of peer-nominated victimization than Non-Hispanic White youth. Results suggested that further exploration of distinct parameters of victimization is warranted—as well as evaluating the incremental risk of elevations across multiple parameters—

to better help victimized children at risk for internalizing maladjustment. Further, results suggest that scholars should continue parsing out these (and other parameters) in relation to other adjustment outcomes.

References

Abramson, L. Y., Metalsky, G. I., & Alloy, L. B. (1989). Hopelessness depression: A theory-based subtype of depression. *Psychological Review, 96*, 358-372. doi:10.1037/0033-295X.96.2.358

Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology, 87*, 49-74. doi:10.1037/0021-843X.87.1.49

Aceves, M. J., Hinshaw, S. P., Mendoza-Denton, R., & Page-Gould, E. (2010). Seek help from teachers or fight back? Student perceptions of teachers' actions during conflicts and responses to peer victimization. *Journal of Youth and Adolescence, 39*, 658-669. doi:10.1007/s10964-009-9441-9

Achenbach, T. M. (2006). As others see us: Clinical and research implications of cross-informant correlations for psychopathology. *Current Directions in Psychological Science, 15*, 94-98. doi:10.1111/j.0963-7214.2006.00414.x

Achenbach, T. M., McConaughy, S. H., & Howell, C. T. (1987). Child/adolescent behavioral and emotional problems: Implications of cross-informant correlations for situational specificity. *Psychological Bulletin, 101*, 213-232. doi:10.1037/0033-2909.101.2.213

Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage Publications Inc.

Allan, A., Atkinson, E., Brace, E., DePalma, R., & Hemingway, J. (2007). Girls, boys and junior sexualities: Exploring children's gender and sexual relations in the primary school. *British Journal of Educational Studies, 55*, 470-473. doi:10.1111/j.1467-8527.2007.00388_5.x

Arai, K. I., Lee, F., Miyajima, A., Miyatake, S., Arai, N., & Yokota, T. (1990). Cytokines: Coordinators of immune and inflammatory responses. *Annual Review of Biochemistry, 59*, 783-836. doi:10.1146/annurev.bi.59.070190.004031

Arseneault, L., Bowes, L., & Shakoor, S. (2010). Bullying victimization in youths and mental health problems: 'Much ado bout nothing'?. *Psychological Medicine, 40*, 717-729. doi:10.1017/S0033291709991383

Arseneault, L., Walsh, E., Trzesniewski, K., Newcombe, R., Caspi, A., & Moffitt, T. E. (2006). Bullying victimization uniquely contributes to adjustment problems in young children: A nationally representative cohort study. *Pediatrics, 118*, 130-138. doi:10.1542/peds.2005-2388

Asarnow, J. R., & Bates, S. (1988). Depression in child psychiatric inpatients: Cognitive and attributional patterns. *Journal of Abnormal Child Psychology, 16*, 601-615. doi:10.1007/BF00913472

Asher, S. R., & Wheeler, V. A. (1985). Children's loneliness: A comparison of rejected and neglected peer status. *Journal of Consulting and Clinical Psychology, 53*(4), 500-505.

Astor, R. A., Meyer, H. A., & Behre, W. J. (1999). Unowned places and times: Maps and interviews about violence in high schools. *American Educational Research Journal, 36*, 3-42. doi:10.3102/00028312036001003

Averdijk, M., Müller, B., Eisner, M., & Ribeaud, D. (2011). Bullying victimization and later anxiety and depression among pre-adolescents in Switzerland. *Journal of Aggression, Conflict and Peace Research, 3*, 103-109. doi:10.1108/17596591111132927

Babcock, B., Marks, P. E., Crick, N. R., & Cillessen, A. H. (2014). Limited nomination reliability using single- and multiple-item measures. *Social Development, 23*, 518-536. doi:10.1111/sode.12056

Baldry, A. C., & Farrington, D. P. (1999). Types of bullying among Italian school children. *Journal of Adolescence*, *22*, 423-426. doi:10.1006/jado.1999.0234

Baly, M. W., Cornell, D. G., & Lovegrove, P. (2014). A longitudinal investigation of self- and peer reports of bullying victimization across middle school. *Psychology in the Schools, 51*, 217-240. doi:10.1002/pits.21747

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review, 84*, 191-215. doi:10.1037/0033-295X.84.2.191

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual review of psychology*, *52*, 1-26. doi:10.1146/annurev.psych.52.1.1

Banks, D. M., Scott, B. G., & Weems, C. F. (2017). Anxiety, hostile attributions, and differences in heart rate response to ambiguous situational vignettes in adolescents. *Emotion, 18*, 248-259. doi:10.1037/emo0000352

Barker, E. D., Arseneault, L., Brendgen, M., Fontaine, N., & Maughan, B. (2008). Joint development of bullying and victimization in adolescence: Relations to delinquency and self-harm. *Journal of the American Academy of Child & Adolescent Psychiatry, 47*, 1030-1038. doi:10.1097/CHI.ObO13e31817eec98

Barzilay, S., Klomek, A. B., Apter, A., Carli, V., Wasserman, C., Hadlaczky, G., … & Brunner, R. (2017). Bullying victimization and suicide ideation and behavior among adolescents in Europe: A 10-country study. *Journal of Adolescent Health, 61*, 179-186. doi:10.1016/j.jadohealth.2017.02.002

Bayer, J. K., Mundy, L., Stokes, I., Hearps, S., Allen, N., & Patton, G. (2018). Bullying, mental health and friendship in Australian primary school children. *Child and Adolescent Mental Health, 23*, 334-340. doi:10.1111/camh.12261

Beck, A. T., & Clark, D. A. (1997). An information processing model of anxiety: Automatic and strategic processes. *Behaviour Research and Therapy, 35*(1), 49-58. doi:10.1016/S0005-7967(96)00069-1

Bellmore, A. D., & Cillessen, A. H. (2006). Reciprocal influences of victimization, perceived social preference, and self-concept in adolescence. *Self and Identity, 5*, 209-229. doi:10.1080/15298860600636647

Bellmore, A. D., Witkow, M. R., Graham, S., & Juvonen, J. (2004). Beyond the individual: The impact of ethnic context and classroom behavioral norms on victims' adjustment. *Developmental Psychology, 40*, 1159-1172. doi:10.1037/0012-1649.40.6.1159

Bettencourt, A., Farrell, A., Liu, W., & Sullivan, T. (2013). Stability and change in patterns of peer victimization and aggression during adolescence. *Journal of Clinical Child & Adolescent Psychology, 42*, 429-441. doi:10.1080/15374416.2012.738455

Bevans, K. B., Bradshaw, C. P., & Waasdorp, T. E. (2013). Gender bias in the measurement of peer victimization: An application of item response theory. *Aggressive Behavior, 39*, 370-380. doi:10.1002/ab.21486

Biebl, S. J., DiLalla, L. F., Davis, E. K., Lynch, K. A., & Shinn, S. O. (2011). Longitudinal associations among peer victimization and physical and mental health problems. *Journal of Pediatric Psychology, 36*, 868-877. doi:10.1093/jpepsy/jsr025

Biggs, B. K., Vernberg, E., Little, T. D., Dill, E. J., Fonagy, P., & Twemlow, S. W. (2010). Peer victimization trajectories and their association with children's affect in late elementary school. *International Journal of Behavioral Development, 34*, 136-146. doi:10.1177/0165025409348560

Bogart, L. M., Elliott, M. N., Klein, D. J., Tortolero, S. R., Mrug, S., Peskin, M. F., … & Schuster, M. A. (2014). Peer victimization in fifth grade and health in tenth grade. *Pediatrics, 133*, 440-447. doi:10.1542/peds.2013-3510

Boivin, M., & Hymel, S. (1997). Peer experiences and social self-perceptions: A sequential model. *Developmental Psychology, 33*, 135-145. doi:10.1037/0012-1649.33.1.135

Boivin, M., Hymel, S., & Bukowski, W. M. (1995). The roles of social withdrawal, peer rejection, and victimization by peers in predicting loneliness and depressed mood in childhood. *Development & Psychopathology, 7*, 765-785. doi:10.1017/S0954579400006830

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 correlates. *Merrill-Palmer Quarterly, 56*, 231-260. doi:10/1353/mpq.0.0050

Bond, L., Carlin, J. B., Thomas, L., Rubin, K., & Patton, G. (2001). Does bullying cause emotional problems? A prospective study of young teenagers. *BMJ, 323*, 480-484. doi:10.1136/bmj.323.7311.480

Boulton, M. J., Smith, P. K., & Cowie, H. (2010). Short-term longitudinal relationships between children's peer victimization/bullying experiences and self-perceptions: Evidence of reciprocity. *School Psychology International, 31*, 296-311. doi:10.1177/0143034310362329

Boulton, M. J., Trueman, M., Chau, C. A. M., Whitehand, C., & Amatya, K. (1999). Concurrent and longitudinal links between friendship and peer victimization: Implications for befriending interventions. *Journal of Adolescence, 22*, 461-466. doi:10.1006/jado.1999.0240

Boulton, M. J., & Underwood, K. (1992). Bully/victim problems among middle school children. *British Journal of Educational Psychology, 62*, 73-87. doi:10.1111/j.2044-8279.1992.tb01000.x

Bouman, T., van der Meulen, M., Goossens, F. A., Olthof, T., Vermande, M. M., & Aleva, E. A. (2012). Peer and self-reports of victimization and bullying: Their differential association with internalizing problems and social adjustment. *Journal of School Psychology, 50*, 759-774. doi:10.1016/j.jsp.2012.08.004

Bowes, L., Maughan, B., Ball, H., Shakoor, S., Ouellet-Morin, I., Caspi, A., … & Arseneault, L. (2013). Chronic bullying victimization across school transitions: The role of genetic and environmental influences. *Development and Psychopathology, 25*, 333-346. doi:10.1017/S0954579412001095

Bradshaw, C. P., Sawyer, A. L., & O'Brennan, L. M. (2009). A social disorganization perspective on bullying-related attitudes and behaviors: The influence of school context. *American Journal of Community Psychology, 43*, 204-220. doi:10.1007/s10464-009-9240-1

Bradshaw, C. P., Waasdorp, T. E., & O'Brennan, L. M. (2013). A latent class approach to examining forms of peer victimization. *Journal of Educational Psychology, 105*, 839-849. doi:10.1037/a0032091

Branson, C. E., & Cornell, D. G. (2009). A comparison of self and peer reports in the assessment of middle school bullying. *Journal of Applied School Psychology, 25*, 5-27. doi:10.1080/15377900802484133

Brendgen, M., Girard, A., Vitaro, F., Dionne, G., Tremblay, R. E., Pérusse, D., & Boivin, M. (2013). Gene-environment processes linking peer victimization and physical health problems: A longitudinal twin study. *Journal of Pediatric Psychology, 39*, 96-108. doi:10.1093/jpepsy/jst078

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design.* Cambridge, MA: Harvard University Press.

Brown, V., Clery, E., & Ferguson, C. (2011). *Estimating the prevalence of young people absent from school due to bullying*. London: Red Balloon Learner Centre Group.

Browning, C., Cohen, R., & Warman, D. M. (2003). Peer social competence and the stability of victimization. *Child Study Journal, 33*(2), 73-91.

Bruce, E., & Waelde, L. C. (2008). Relationships of ethnicity, ethnic identity, and trauma symptoms to delinquency. *Journal of Loss and Trauma, 13*, 395-405. doi:10.1080/15325020802171326

Buhs, E. S., McGinley, M., & Toland, M. D. (2010). Overt and relational victimization in Latinos and European Americans: Measurement equivalence across ethnicity, gender, and grade level in early adolescent groups. *The Journal of Early Adolescence, 30*, 171-197. doi:10.1177/0272431609350923

Camodeca, M., & Goossens, F. A. (2005). Aggression, social cognitions, anger and sadness in bullies and victims. *Journal of Child Psychology and Psychiatry, 46*, 186-197. doi:10.1111/j.1469-7610.2004.00347.x

Camodeca, M., Goossens, F. A., Terwogt, M. M., & Schuengel, C. (2002). Bullying and victimization among school-age children: Stability and links to proactive and reactive aggression. *Social Development, 11*, 332-345. doi:10.1111/1467-9507.00203

Campbell, M. L., & Morrison, A. P. (2007). The relationship between bullying, psychotic-like experiences and appraisals in 14-16 year olds. *Behaviour Research and Therapy, 45*, 1579-1591. doi:10.1016/j.brat.2006.11.009

Carbone-Lopez, K., Esbensen, F. A., & 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*, 332-350. doi:10.1177/1541204010362954

Card, N. A, & Hodges, E. V. E. (2008). Peer victimization among schoolchildren: Correlations, causes, consequences, and considerations in assessment and intervention. *School Psychology Quarterly, 23*, 451-461. doi:10.1037/a0012769

Card, N. A., Isaacs, J., & Hodges, E. V. E. (2007). Correlates of school victimization: Recommendations for prevention and intervention. In J. E. Zins, M. J. Elias, & C. A. Maher (Eds.), *Bullying, victimization, and peer harassment: A handbook of prevention and intervention* (pp. 339-366). New York: Haworth Press.

Card, N. A., & Little, T. D. (2006). Proactive and reactive aggression in childhood and adolescence: A meta-analysis of differential relations with psychosocial adjustment. *International Journal of Behavioral Development, 30*, 466-480. doi:10.1177/0165025406071904

Caserta, M. T., Wyman, P. A., Wang, H., Moynihan, J., & O'Connor, T. G. (2011). Associations among depression, perceived self-efficacy, and immune function and health in preadolescent children. *Development and Psychopathology, 23*, 1139-1147. doi:10.1017/S0954579411000526

Casper, D. M., Meter, D. J., & Card, N. A. (2015). Addressing measurement issues related to bullying involvement. *School Psychology Review, 44*, 353-371. doi:10.17105/spr-15-0036.1

Centers for Disease Control and Prevention. (2017). *QuickStats*: Suicide rates for teens aged 15-19 years, by sex – United States, 1975-2015. *MMWR Morbidity and Mortality Weekly Report, 66*, 816. doi:10.15585/mmwr.mm6630a6

Chan, J. H., Myron, R., & Crawshaw, M. (2005). The efficacy of non-anonymous measures of bullying. *School Psychology International, 26*, 443-458. doi:10.1177/0143034305059020

Chen, Z., Williams, K. D., Fitness, J., & Newton, N. C. (2008). When hurt will not heal: Exploring the capacity to relive social and physical pain. *Psychological Science, 19*, 789-795. doi:10.1111/j.1467-9280.2008.02158.x

Chorpita, B. F., Moffitt, C., & Gray, J. (2005). Psychometric properties of the Revised Child Anxiety and Depression Scale in a clinical sample. *Behaviour Research & Therapy, 43*, 309-322. doi:10.1016/j.brat.2004.02.004

Chorpita, B. F., Yim, L., Moffitt, C., Umemoto, L. A., & Francis, S. E. (2000). Assessment of symptoms of DSM-IV anxiety and depression in children: A revised child anxiety and depression scale. *Behaviour Research & Therapy, 38*, 835-855. doi:10.1016/S0005-7967(99)00130-8

Cicchetti, D., & Rogosch, F. A. (1996). Equifinality and multifinality in developmental psychopathology. *Development and Psychopathology, 8*, 597-600. doi:10.1017/S0954579400007318

Clemans, K. H., Musci, R. J., Leoutsakos, J. M. S., & Ialongo, N. S. (2014). Teacher, parent, and peer reports of early aggression as screening measures for long-term maladaptive outcomes: Who provides the most useful information? *Journal of Consulting and Clinical Psychology, 82,* 236-247. doi:10.1037/a0035918

Coie, J. D., Lochman, J. E., Terry, R., & Hyman, C. (1992). Predicting early adolescent disorder from childhood aggression and peer rejection. *Journal of Consulting and Clinical Psychology, 60,* 783-792. doi:10.1037/0022-006X.60.5.783

Coie, J. D., Watt, N. F., West, S. G., Hawkins, J. D., Asarnow, J. R., Markman, H. J., … & Long, B. (1993). The science of prevention: A conceptual framework and some directions for a national research program. *American Psychologist, 48,* 1013. doi:10.1037/0003-066X.48.10.1013

Cole, D. A., Maxwell, M. A., Dukewich, T. L., & Yosick, R. (2010). Targeted peer victimization and the construction of positive and negative self-cognitions: Connections to depressive symptoms in children. *Journal of Clinical Child and Adolescent Psychology, 39,* 421-435. doi:10.1080/15374411003691776

Compas, B. E., Boyer, M. C., Stanger, C., Colletti, R. B., Thomsen, A. H., Dufton, L. M., & Cole, D. A. (2006). Latent variable analysis of coping, anxiety/depression, and somatic symptoms in adolescents with chronic pain. *Journal of Consulting and Clinical Psychology, 74,* 1132-1142. doi:10.1037/0022-006X.74.6.1132

Cook, C. R., Williams, K. R., Guerra, N. G., Kim, T. E., & Sadek, S. (2010). Predictors of bullying and victimization in childhood and adolescence: A meta-analytic investigation. *School Psychology Quarterly, 25,* 65-83. doi:10.1037/a0020149

Cooley, J. L., Fite, P. J., & Pederson, C. A. (2018). Bidirectional associations between peer victimization and functions of aggression in middle childhood: Further evaluation across informants and academic years. *Journal of Abnormal Child Psychology, 46,* 99-111. doi:10.1007/s10802-017-0283-8

Copeland, W. E., Wolke, D., Angold, A., & Costello, E. J. (2013). Adult psychiatric outcomes of bullying and being bullied by peers in childhood and adolescence. *JAMA Psychiatry, 70,* 419-426. doi:10.1001/jamapsychiatry.2013.504

Cornell, D. G., & Bandyopadhyay, S. (2010). The assessment of bullying. In S. R. Jimerson, S. M. Swearer, & D. L. Espelage (Eds.), *Handbook of Bullying in Schools: An International Perspective* (pp. 265-276). New York: Routledge.

Cornell, D. G., & Brockenbrough, K. (2004). Identification of bullies and victims: A comparison of methods. *Journal of School Violence, 3,* 83-87. doi:10.1300/J202v03n02_05

Cornell, D. G., Gregory, A., Huang, F., & Fan, X. (2013). Perceived prevalence of teasing and bullying predicts high school dropout rates. *Journal of Educational Psychology, 105*, 138-149. doi:10.1037/a0030416

Cowie, H., & Olafsson, R. (1999). The role of peer support against bullying. *School Psychology International, 20*, 96-105.

Craig, J. T., Gregus, S. J., Elledge, L. C., Pastrana, F. A., & Cavell, T. A. (2016). Preliminary investigation of the relation between lunchroom peer acceptance and peer victimization. *Journal of Applied Developmental Psychology, 43,* 101-111. doi:10.1016/j.appdev.2016.01.005

Craig, W. M., & Harel, Y. (2004). Bullying, physical fighting and victimization. In C. Currie, C. Roberts, A. Morgan, R. Smith, W. Settertobulte, O. Samdal, & V. B. Rasmussen (Eds.), *Young people's health in context: International report from the HBSC 2001/02 survey*. *WHO Policy Series: Health policy for children and adolescents* (pp.133-44) Issue 4.

Craig, W. M., & Pepler, D. J., (2003). Identifying and targeting risk for involvement in bullying and victimization. *The Canadian Journal of Psychiatry, 48*, 577-582. doi:10.1177/070674370304800903

Craig, W. M., Pepler, D., & Blais, J. (2007). Responding to bullying: What works? *School Psychology International, 28,* 465-477. doi:10.1177/0143034307084136

Craig, W. M., Pepler, D. J., Murphy, A., & McCuaig-Edge, H. (2010). What works in bullying prevention? In E. M. Verberg, B. K. Biggs (Eds.), *Preventing and treating bullying and victimization*, 215-241. New York, NY: Oxford University Press.

Crick, N. R., & Bigbee, M. A. (1998). Relational and overt forms of peer victimization: A multiinformant approach. *Journal of Consulting and Clinical Psychology, 66*, 337-347. doi:10.1037/0022-006X.66.2.337

Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development, 66*, 710-722. doi:10.2307/1131945

Cuadrado-Gordillo, I. (2011). Divergence in aggressors' and victims' perceptions of bullying: A decisive factors for differential psychosocial intervention. *Children and Youth Services Review, 33,* 1608-1615. doi:10.1016/j.childyouth.2011.04.002

Cullerton-Sen, C., Cassidy, A. R., Murray-Close, D., Cicchetti, D., Crick, N. R., & Rogosch, F. (2008). Chilhood maltreatment and the development of relational and physical aggression: The importance of a gender-informed approach. *Child Development, 79,* 1736-1751. doi:10.1111/j.1467-8624.2008.01222.x

Currie, C., Zanotti, C., Morgan, A., Currie, D., De Looze, M., Roberts, C., … & Barnekow, V. (2012). *Social determinants of health and well-being among young people: HBSC international report from the 2009/2010 survey*. Health Policy for Children and Adolescents No. 6. Copenhagen: WHO Regional Office for Europe.

Dale, J., Russell, R., & Wolke, D. (2014). Intervening in primary care against childhood bullying: An increasingly pressing public health need. *Journal of the Royal Society of Medicine, 107,* 219-223. doi:10.1177/0141076814525071

Daleiden, E. L., & Vasey, M. W. (1997). An information-processing perspective on childhood anxiety. *Clinical Psychology Review, 17*, 407-429. doi:10.1016/S0272-7358(97)00010-X

Davis, R. E., Lee, S., Johnson, T. P., & Rothschild, S. K. (2019). Measuring the elusive construct of *Personalismo* among Mexican American, Puerto Rican, and Cuban American adults. *Hispanic Journal of Behavioral Sciences, 41,* 103-121. doi:10.1177/0739986318822535

Dawes, M., Chen, C. C., Farmer, T. W., & Hamm, J. V. (2017). Self- and peer-identified victims in late childhood: Differences in perceptions of the school ecology. *Journal of Youth and Adolescence, 46,* 2273-2288. doi:10.1007/s10964-017-0688-2

Dawson, J. F. (2014). Moderation in management research: What, why, when, and how. *Journal of Business and Psychology, 29,* 1-19. doi:10.1007/s10869-013-9308-7

Deighton, J., Humphrey, N., Belsky, J., Boehnke, J., Vostanis, P., & Patalay, P. (2018). Longitudinal pathways between mental health difficulties and academic performance during middle childhood and early adolescence. *British Journal of Developmental Psychology, 36,* 110-126. doi:10.1111/bjdp.12218

DeLara, E. W. (2012). Why adolescents don't disclose incidents of bullying and harassment. *Journal of School Violence, 11*, 288-305. doi:10.1080/15388220.2012.705931

Dempsey, J. P., Fireman, G. D., & Wang, E. (2006). Transitioning out of peer victimization in school children: Gender and behavioral characteristics. *Journal of Psychopathology and Behavioral Assessment, 28,* 271-280. doi:10.1007/s10862-005-9014-5

DeRosier, M. E., & Marcus, S. R. (2005). Building friendships and combating bullying: Effectiveness of SS GRIN at one-year follow-up. *Journal of Clinical Child and Adolescent Psychology, 34,* 140-150. doi:10.1207/s15374424jccp3401_13

DeVoe, J. F., Kaffenberger, S., & Chandler (2005). National Center for Education Statistics (ED), W. C., Education Statistics Services Inst., W. C., & American Institutes for Research, W. C. (2005). Student Reports of Bullying: Results from the 2001 School Crime Supplement to the National Crime Victimization Survey. Statistical Analysis Report. NCES 2005-310. *US Department Of Education.*

Dill, E. J., Vernberg, E. M., Fonagy, P., Twemlow, S. W., & Gamm, B. K. (2004). Negative affect in victimized children: The roles of social withdrawal, peer rejection, and attitudes toward bullying. *Journal of Abnormal Child Psychology, 32,* 159-173. doi:10.1023/B:JACP.0000019768.31348.81

Dodge, K. A. (1980). Social cognition and children's aggressive behavior. *Child Development, 51,* 162-170. doi:10.2307/1129603

Dodge, K. A., & Crick, N. R. (1990). Social information-processing bases of aggressive behavior in children. *Personality and Social Psychology Bulletin, 16,* 8-22. doi:10.1177/0146167290161002

Dodge, K. A., Malone, P. S., Lansford, J. E., Sorbring, E., Skinner, A. T., Tapanya, S., . . . & Pastorelli, C. (2015). Hostile attributional bias and aggressive behavior in global context. *Proceedings of the National Academy of Sciences, 112,* 9310-9315. doi:10.1073/pnas.1418572112

Doom, J. R., Cicchetti, D., Rogosch, F. A., & Dackis, M. N. (2013). Child maltreatment and gender interactions as predictors of differential neuroendocrine profiles. *Psychoneuroendocrinology, 38,* 1442-1454. doi:10.1016/j.psyneuen.2012.12.019

Due, P., Holstein, B. E., Lynch, J., Diderichsen, F., Gabhain, S. N., Scheidt, P., & Currie, C. (2005). Bullying and symptoms mong school-aged children: International comparative cross sectional study in 28 countries. *European Journal of Public Health, 15,* 128-132. doi:10.1093/eurpub/cki105

Dulmus, C. N., Sowers, K. M., & Theriot, M. T. (2006). Prevalence and bullying experiences of victims and victims who become bullies (bully-victims) at rural schools. *Victims & Offenders, 1,* 15-31. doi:10.1080/15564880500498945

Egan, S. K., & Perry, D. G. (1998). Does low self-regard invite victimization*? Developmental Psychology, 34,* 299-309. doi:10.1037//0012-1649.34.2.299

Elledge, L. C., Cavell, T. A., Ogle, N. T., & Newgent, R. A. (2010a). School-based mentoring as selective prevention for bullied children: A preliminary test. *The Journal of Primary Prevention, 31,* 171-187. doi:10.1007/s10935-010-0215-7

Elledge, L. C., Cavell, T. A., Ogle, N. T., Newgent, R. A., Malcolm, K. T., & Faith, M. A. (2010b). History of peer victimization and children's response to instances of school bullying. *School Psychology Quarterly, 25,* 129-141. doi:10.1037/a0020313

English, D. J., Graham, J. C., Litrownik, A. J., Everson, M., & Bangdiwala, S. I. (2005a). Defining maltreatment chronicity: Are there differences in child outcomes? *Child Abuse & Neglect, 29,* 575-595. doi:10.1016/j.chiabu.2004.08.009

English, D. J., Upadhyaya, M. P., Litrownik, A. J., Marshall, J. M., Runyan, D. K., Graham, J. C., & Dubowitz, H. (2005b). Maltreatment's wake: The relationship of maltreatment dimensions to child outcomes. *Child Abuse & Neglect, 29*, 597-619. doi:10.1016/j.chiabu.2004.12.008

Esbensen, F. A., & Carson, D. C. (2009). Consequences of being bullied: Results from a longitudinal assessment of bullying victimization in a multisite sample of American students. *Youth & Society, 41*, 209-233. doi:10.1177/0044118X09351067

Espelage, D. L., Holt, M. K., & Henkel, R. R. (2003). Examination of peer-group contextual effects on aggression during early adolescence. *Child Development, 74*, 205-220. doi:10.1111/1467-8624.00531

Espelage, D. L., Hong, J. S., Rao, M. A., & Low, S. (2013). Associations between peer victimization and academic performance. *Theory into Practice, 52,* 233-240. doi:10.1080/00405841.2013.829724

Espelage, D. L., Rao, M. A., & De La Rue, L. (2013). Current research on school-based bullying: A social-ecological perspective. *Journal of Social Distress and the Homeless, 22*, 21-7. doi:10.1179/1053078913Z.0000000002

Fanti, K. A., & Kimonis, E. R. (2012). Bullying and victimization: The role of conduct problems and psychopathic traits. *Journal of Research on Adolescence, 22*, 617-631. doi:10.1111/j.1532-7795.2012.00809.x

Faravelli, C., Sauro, C. L., Godini, L., Lelli, L., Benni, L., Pietrini, F., ... & Ricca, V. (2012). Childhood stressful events, HPA axis and anxiety disorders. *World Journal of Psychiatry, 2*, 13-25. doi:10.5498/wjp.v2.i1.13

Farrington, D. P., & Ttofi, M. M. (2009). How to reduce school bullying. *Victims and Offenders, 4*, 321-326. doi:10.1080/15564880903227255

Fekkes, M., Pijpers, F. I., Fredriks, A. M., Vogels, T., & Verloove-Vanhorick, S. P. (2006). Do bullied children get ill, or do ill children get bullied? A prospective cohort study on the relationship between bullying and health-related symptoms. *Pediatrics, 117*, 1568-1574. doi:10.1542/peds.2005-0187

Fekkes, M., Pijpers, F. I., & Verloove-Vanhorick, S. P. (2005). Bullying: Who does what, when, and where? Involvement of children, teachers and parents in bullying behavior. *Health Education Research, 20*, 81-91. doi:10.1093/her/cyg100

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine, 14*, 245-258. doi:10.1016/S0749-3797(98)00017-8

Finkelhor, D., Shattuck, A., Turner, H., & Hamby, S. (2015). A revised inventory of adverse childhood experiences. *Child Abuse & Neglect, 48*, 13-21. doi:10.1016/j.chiabu.2015.07.011

Finkelhor, D., Turner, H., Ormrod, R., & Hamby, S. L. (2009). Violence, abuse, and crime exposure in a national sample of children and youth. *Pediatrics, 124*, 1411-1423. doi:10.1542/peds.2009-0467

Fisher, H. L., Moffitt, T. E., Houts, R. M., Belsky, D. W., Arseneault, L., & Caspi, A. (2012). Bullying victimisation and risk of self harm in early adolescence: Longitudinal cohort study. *BMJ, 344*, 1-9. doi:10.1136/bmj.e2683

Fiske, S. T., & Taylor, S. E. (2013). *Social cognition: From brains to culture*. Los Angeles, CA: Sage Publishing.

Fite, P. J., Cooley, J. L., Pouiz, J., & Williford, A. (2019). Pilot evaluation of a targeted intervention for peer-victimized youth. *Journal of Clinical Psychology, 75*, 46-65. doi:10.1002/jclp.22697

Fite, P. J., Williford, A., Cooley, J. L., DePaolis, K., Rubens, S. L., & Vernberg, E. M. (2013, December). Patterns of victimization locations in elementary school children: Effects of grade level and gender. *Child & Youth Care Forum, 42*, 585-597. doi:10.1007/s10566-013-9219-9

Fleming, L. C., & Jacobsen, K. H. (2009). Bullying and symptoms of depression in Chilean middle school students. *Journal of School Health, 79*, 130-137. doi:10.1111/j.1746-1561.2008.0397.x

Forero, R., McLellan, L., Rissel, C., & Bauman, A. (1999). Bullying behavior and psychosocial health among school students in New South Wales, Australia: Cross sectional survey. *BMJ, 319*, 344-348. doi:10.1136/bmj.319.7206.344

Forster, M., Gower, A. L., McMorris, B. J., & Borowsky, I. W. (2017). Adverse childhood experiences and school-based victimization and perpetration. *Journal of Interpersonal Violence*. doi:10.1177/0886260517689885

Fox, C. L., & Boulton, M. J. (2005). The social skills problems of victims of bullying: Self, peer and teacher perceptions. *British Journal of Educational Psychology, 75*, 313-328. doi:190.1348/000709905X25517

Fredrick, S. S., & Demaray, M. K. (2018). Peer victimization and suicidal ideation: The role of gender and depression in a school-based sample. *Journal of School Psychology, 67*, 1-15. doi:10.1016/j.jsp.2018.02.001

Galloway, D., & Roland, E. (2004). Is the direct approach to reducing bullying always the best? In P. K. Smith, D. Pepler, & K. Rigby (Eds.), *Bullying in schools: How successful can interventions be?* (pp. 37–53). Cambridge, England: Cambridge University Press.

Gambin, M., & Sharp, C. (2018). The relations between empathy, guilt, shame, and depression in inpatient adolescents. *Journal of Affective Disorders, 241*, 381-387. doi:10.1016/j.jad.2018.08.068

Garandeau, C. F., Lee, I. A., & Salmivalli, C. (2018). Decreases in the proportion of bullying victims in the classroom: Effects on the adjustment of remaining victims. *International Journal of Behavioral Development, 42*, 64-72. doi:10.1177/0165025416667492

Garland, A. F., Landsverk, J. L., Hough, R. L., & Ellis-MacLeod, E. (1996). Type of maltreatment as a predictor of mental health service use for children in foster care. *Child Abuse & Neglect, 20*, 675-688. doi:10.1016/0145-2134(96)00056-7

Gazelle, H., & Ladd, G. W. (2002). Interventions for children victimized by peers. In P. A. Schewe (Eds.), *Preventing violence in relationships: Interventions across the life span* (pp. 55-78). Washington, DC: American Psychological Association.

Geoffroy, M. C., Boivin, M., Arseneault, L., Turecki, G., Vitaro, F., Brendgen, M., … & Côté, S. M. (2016). Associations between peer victimization and suicidal ideation and suicide attempt during adolescence: Results from a prospective population-based birth cohort. *Journal of the American Academy of Child & Adolescent Psychiatry, 55*, 99-105. doi:10.1016/j.jaac.2015.11.010

Georgiou, S. N., & Stavrinides, P. (2008). Bullies, victims and bully-victims: Psychosocial profiles and attribution styles. *School Psychology International, 29*, 575-589. doi:10.1177/0143034308099202

Gershon, A., Sudheimer, K., Tirouvanziam, R., Williams, L. M., & O'Hara, R. (2013). The long-term impact of early adversity on late-life psychiatric disorders. *Current Psychiatry Reports, 15*, 352-361. doi:10.1007/s11920-013-0352-9

Ghatavi, K., Nicolson, R., MacDonald, C., Osher, S., & Levitt, A. (2002). Defining guilt in depression: A comparison of subjects with major depression, chronic medical illness and healthy controls. *Journal of Affective Disorders, 68*, 307-315. doi:10.1016/S0165-0327(01)00335-4

Ghoul, A., Niwa, E. Y., & Boxer, P. (2013). The role of contingent self-worth in the relation between victimization and internalizing problems in adolescents. *Journal of Adolescence, 36*, 457-464. doi:10.1016/j.adolescence.2013.01.007

Gibb, S. J., Horwood, L. J., & Fergusson, D. M. (2011). Bullying victimization/ perpetration in childhood and later adjustment: Findings from a 30 year longitudinal study. *Journal of Aggression, Conflict and Peace Research, 3*, 82-88. doi:10.1108/17596591111132891

Giletta, M., Slavich, G. M., Rudolph, K. D., Hastings, P. D., Nock, M. K., & Prinstein, M. J. (2018). Peer victimization predicts heightened inflammatory reactivity to social stress in cognitively vulnerable adolescents. *Journal of Child Psychology and Psychiatry, 59*, 129-139. doi:10.1111/jcpp.12804

Gini, G. (2008). Associations between bullying behaviour, psychosomatic complaints, emotional and behavioural problems. *Journal of Paediatrics and Child Health, 44*, 492-497. doi:10.1111/j.1440-1754.2007.01155.x

Gini, G., & Espelage, D. L. (2014). Peer victimization, cyberbullying, and suicide risk in children and adolescents. *JAMA Pediatrics, 312*, 545-546. doi:10.1001/jamapediatrics.2013.4143

Gini, G., & Pozzoli, T. (2013). Bullied children and psychosomatic problems: A meta-analysis. *Pediatrics, 132*, 720-729. doi: 10.1542/peds.2013-0614

Gini, G., Pozzoli, T., Lenzi, M., & Vieno, A. (2014). Bullying victimization at school and headache: A meta-analysis of observational studies. *Headache: The Journal of Head and Face Pain, 54*, 976-986. doi:10.1111/head.12344

Goldbaum, S., Craig, W. M., Pepler, D., & Connolly, J. (2003). Developmental trajectories of victimization: Identifying risk and protective factors. *Journal of Applied School Psychology, 19*, 139-156. doi:10.1300/J008v19n02_09

Gower, A. L., & Borowsky, I. W. (2013). Associations between frequency of bullying involvement and adjustment in adolescence. *Academic Pediatrics, 13*, 214-221. doi:10.1016/j.acap.2013.02.004

Graham, S. (2006). Peer victimization in school: Exploring the ethnic context. *Current Directions in Psychological Science, 15*, 317-321. doi:10.1111/j.1467-8721.2006.00460

Graham, S. (2016). Victims of bullying in schools. *Theory Into Practice, 55*, 136-144. doi:10.1080/00405841.2016.1148988

Graham, S., Bellmore, A., Nishina, A., & Juvonen, J. (2009). "It must be me": Ethnic diversity and attributions for peer victimization in middle school. *Journal of Youth and Adolescence, 38*, 487-499. doi:10.1007/s10964-008-9386-4

Graham, S., & Juvonen, J. (1998). Self-blame and peer victimization in middle school: An attributional analysis. *Developmental Psychology, 34*, 587-599. doi:10.1037//0012-1649.34.3.587

Graham, S., & Juvonen, J. (2001). An attributional approach to peer victimization. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 73-104). New York: Guilford Press.

Graham, S., Taylor, A. Z., & Ho, A. Y. (2009). Race and ethnicity in peer relations research. In K. H. Rubin, W. M. Bukowski, & B. Laursen (Eds.), *Handbook of Peer Interactions, Relationships, and Groups* (pp. 394-413). New York: Guilford Press.

Greco, L. A., Freeman, K. E., & Dufton, L. (2007). Overt and relational victimization among children with frequent abdominal pain: Links to social skills, academic functioning, and health service use. *Journal of Pediatric Psychology, 32*, 319-329. doi:10.1093/jpepsy/jsl016

Gregus, S. J., Craig, J. T., Hernandez Rodriguez, J., Pastrana, F. A., & Cavell, T. A. (2015). Lunch Buddy Mentoring for children victimized by peers: Two pilot studies. *Journal of Applied School Psychology, 31*, 167-197. doi:10.1080/15377903.2015.1025172

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*, 59-68. doi:10.1207/S15374424JCCP3101_08

Guy, A., Lee, K., & Wolke, D. (2017). Differences in the early stages of social information processing for adolescents involved in bullying. *Aggressive Behavior, 43*, 578-587. doi:10.1002/ab.21716

Haataja, A., Sainio, M., Turtonen, M., & Salmivalli, C. (2016). Implementing the KiVa antibullying program: Recognition of stable victims. *Educational Psychology, 36*, 595-611. doi:10.1080/01443410.2015.1066758

Hager, A. D., & Leadbeater, B. J. (2016). The longitudinal effects of peer victimization on physical health from adolescence to young adulthood. *Journal of Adolescent Health, 58*, 330-336. doi:10.1016/j.jadohealth.2015.10.014

Haltigan, J. D., & Vaillancourt, T. (2014). Joint trajectories of bullying and peer victimization across elementary and middle school and associations with symptoms of psychopathology. *Developmental Psychology, 50*, 2426-2436. doi:10.1037/a0038030

Hammen, C., & Zupan, B. A. (1984). Self-schemas, depression, and the processing of personal information in children. *Journal of Experimental Child Psychology, 37*, 598-608. doi:10.1016/0022-0965(84)90079-1

Hanish, L. D., & Guerra, N. G. (2002). A longitudinal analysis of patterns of adjustment following peer victimization. *Development and Psychopathology, 14*(1), 69-89.

Hanish, L. D., & Guerra, N. (2004). Aggressive victims, passive victims, and bullies: Developmental continuity or developmental change? *Merrill-Palmer Quarterly: Journal of Developmental Psychology*, *50*, 17-38. doi:10.1353/mpq.2004.0003

Harter, S., Stocker, C., & Robinson, N. S. (1996). The perceived directionality of the link between approval and self-worth: The liabilities of looking glass self-orientation among young adolescents. *Journal of Research on Adolescence, 6*. Retrieved from https://journals.sagepub.com/home/jar

Hay, C., & Meldrum, R. (2010). Bullying victimization and adolescent self-harm: Testing hypotheses from general strain theory. *Journal of Youth and Adolescence, 39*, 446-459. doi:10.1007/s10964-009-9502-0

Haynie, D. L., Nansel, T., Eitel, P., Crump, A. D., Saylor, K., Yu, K., & Simons-Morton, B. (2001). Bullies, victims, and bully/victims: Distinct groups of at-risk youth. *The Journal of Early Adolescence, 21*, 29-49. doi:10.1177/0272431601021001002

Heerde, J. A., & Hemphill, S. A. (2018). Are bullying perpetration and victimization associated with adolescent deliberate self-harm? A meta-analysis. *Archives of Suicide Research*, 1-42. doi:10.1080/13811118.2018.1472690

Heim, C., Newport, D. J., Mletzko, T., Miller, A. H., Nemeroff, C. B. (2008). The link between childhood trauma and depression: Insights from HPA axis studies in humans. *Psychoneuroendocrinology, 33,* 693-710.doi:10.1016/j.psyneuen.2008.03.008

Heinemann, P. (1972). *Mobbing—group violence by children and adults*. Stockholm: Natur and Kultur.

Hellfeldt, K., Gill, P. E., & Johansson, B. (2018). Longitudinal analysis of links between bullying victimization and psychosomatic maladjustment in Swedish schoolchildren. *Journal of School Violence, 17*, 86-98. doi:10.1080/15388220.2016.1222498

Herba, C. M., Ferdinand, R. F., Stijnen, T., Veenstra, R., Oldehinkel, A. J., Ormel, J., & Verhulst, F. C. (2008). Victimization and suicide ideation in the TRAILS study: Specific vulnerabilities of victims. *Journal of Child Psychology and Psychiatry, 49*, 867-876. doi:10.1111/j.1469-7610.2008.01900.x

Herge, W. M., La Greca, A. M., & Chan, S. F. (2015). Adolescent peer victimization and physical health problems. *Journal of Pediatric Psychology, 41*, 15-27. doi:10.1093/jpepsy/jsv050

Hinduja, S., & Patchin, J. W. (2010). Bullying, cyberbullying, and suicide. *Archives of Suicide Research, 14*, 206-221. doi:10.1080/13811118.2010.494133

Hodges, E. V. E., Boivin, M., Vitaro, F., & Bukowski, W. M. (1999). The power of friendship: Protection against an escalating cycle of peer victimization. *Developmental Psychology, 35*, 94-101. doi:10.1037/0012-1649.35.1.94

Hoglund, W. L., & Leadbeater, B. J. (2007). Managing threat: Do social-cognitive processes mediate the link between peer victimization and adjustment problems in early adolescence? *Journal of Research on Adolescence, 17*, 525-540. doi:10.1111/j.1532-7795.2007.00533.x

Holfeld, B., & Mishna, F. (2018). Longitudinal associations in youth involvement as victimized, bullying, or witnessing cyberbullying. *Cyberpsychology, Behavior, and Social Networking, 21*, 234-239. doi:10.1089/cyber.2017.0369

Holmbeck, G. N. (2002). Post-hoc probing of significant moderational and mediational effects in studies of pediatric populations. *Journal of Pediatric Psychology, 27*, 87-96. doi:10.1093/jpepsy/27.1.87

Holt, M. K., Finkelhor, D., & Kaufman Kantor, G. (2007). Hidden forms of victimization in elementary students involved in bullying. *School Psychology Review, 36*(3), 345-360.

Holt, M. K., Kaufman Kantor, G., & Finkelhor, D. (2008). Parent/child concordance about bullying involvement and family characteristics related to bullying and peer victimization. *Journal of School Violence, 8*, 42-63. doi:10.1080/15388220802067813

Hoover, J. H., Oliver, R., & Hazler, R. J. (1992). Bullying: Perceptions of adolescent victims in the Midwestern USA. *School Psychology International, 13*, 5-16. doi:10.1177/0143034392131001

Horne, A. M., Swearer, S. M., Givens, J., & Meints, C. (2010). Bully Busters: Reducing bullying by changing teacher and student behavior. In S. R. Jimerson, S. M. Swearer, & D. L. Espelage (Eds.). *Handbook of bullying in schools: An international perspective* (pp. 507-516). New York: Routledge.

Huitsing, G., Veenstra, R., Sainio, M., & Salmivalli, C. (2012). "It must be me" or "It could be them?": The impact of the social network position of bullies and victims on victims' adjustment. *Social Networks, 34*, 379-386. doi:10.1016/j.socnet.2010.07.002

Hyman, S. M., Garcia, M., & Sinha, R. (2006). Gender specific associations between types of childhood maltreatment and the onset, escalation and severity of substance use in cocaine dependent adults. *The American Journal of Drug and Alcohol Abuse, 32*, 655-664. doi:10.1080/10623320600919193

Iudici, A., & Faccio, E. (2014). What program works with bullying in school setting? Personal, social, and clinical implications of traditional and innovative intervention programs. *Procedia-Social and Behavioral Sciences, 116*, 4425-4429. doi:10.1016/j.sbspro.2014.01.960

Iyer, R. V., Kochenderfer-Ladd, B., Eisenberg, N., & Thompson, M. (2010). Peer victimization and effortful control: Relations to school engagement and academic achievement. *Merrill-Palmer Quarterly (Wayne State University Press), 56*, 361-387. doi:10.1353/mpq.0.0058

Jack, A. H., & Egan, V. (2018). Childhood bullying, paranoid thinking and the misappraisal of social threat: Trouble at school. *School Mental Health*, *10*, 26-34. doi:10.1007/s12310-017-9238-z

Janssen, I., Krabbendam, L., Bak, M., Hanssen, M., Vollebergh, W., de Graaf, R., & van Os, J. (2004). Childhood abuse as a risk factor for psychotic experiences. *Acta Psychiatrica Scandinavica, 109*, 38-45. doi:10.1046/j.0001-690X.2003.00217.x

Jenkins, L. N., & Demaray, M. K. (2015). Indirect effects in the peer victimization-academic achievement relation: The role of academic self-concept and gender. *Psychology in the Schools, 52*, 235-247. doi: 10.1002/pits.21824

Jia, M., & Mikami, A. (2018). Issues in the assessment of bullying: Implications for conceptualizations and future directions. *Aggression and Violent Behavior, 41*, 108-118. doi:10.1016/j.avb.2018.05.004

Jutengren, G., Kerr, M., & Stattin, H. (2011). Adolescents' deliberate self-harm, interpersonal stress, and the moderating effects of self-regulation: A two-wave longitudinal analysis. *Journal of School Psychology, 49*, 249-264. doi:10.1016/j.jsp.2010.11.001

Juvonen, J., Graham, S., & Schuster, M. A. (2003). Bullying among young adolescents: The strong, the weak, and the troubled. *Pediatrics, 112*, 1231-1237. doi:10.1542/peds.112.6.1231

Juvonen, J., Nishina, A., & Graham, S. (2000). Peer harassment, psychological adjustment, and school functioning in early adolescence. *Journal of Educational Psychology, 92*, 349-359. doi:10.1037//0022-0663.92.2.349

Juvonen, J., Schacter, H. L., Sainio, M., & Salmivalli, C. (2016). Can a school-wide bullying prevention program improve the plight of victims? Evidence for risk × intervention effects. *Journal of Consulting and Clinical Psychology, 84*, 334-344. doi:10.1037/ccp0000078

Juvonen, J., Wang, Y., & Espinoza, G. (2011). Bullying experiences and compromised academic performance across middle school grades. *The Journal of Early Adolescence, 31*, 152-173. doi:10.1177/0272431610379415

Kaltiala-Heino, R., Rimpelä, M., Marttunen, M., Rimpelä, A., & Rantanen, P. (1999). Bullying, depression, and suicidal ideation in Finnish adolescents: School survey. *BMJ, 319*, 348-351. doi:10.1136/bmj.319.7206.348

Kann, L., McManus, T., Harris, W. A., Shanklin, S. L., Flint, K. H., Hawkins, J., … & Zaza, S. (2016). Youth risk behavior surveillance-United States, 2015. *MMWR Surveillance Summaries, 65*. 1-174. doi:10.15585/mmwr.ss6506a1

Kärnä, A., Voeten, M., Little, T. D., Poskiparta, E., Kaljonen, A., & Salmivalli, C. (2011). A large-scale evaluation of the KiVA Antibullying Program: Grades 4-6. *Child Development, 82*, 311-330. doi:10.1111/j.1467-8624.2010.01557.x

Kaufman, J., Jones, B., Stieglitz, E., Vitulano, L., & Mannarino, A. P. (1994). The use of multiple informants to assess children's maltreatment experiences. *Journal of Family Violence, 9*, 227-248. doi:10.1007/BF01531949

Kaufman, T. M., Kretschmer, T., Huitsing, G., & Veenstra, R. (2018). Why does a universal anti-bullying program not help all children? Explaining persistent victimization during an intervention. *Prevention Science, 19*, 822-832. doi:10.1007/s11121-018-0906-5

Kawabata, Y., Tseng, W. L., & Crick, N. R. (2014). Mechanisms and processes of relational and physical victimization, depressive symptoms, and children's relational-interdependent self-construals: Implications for peer relationships and psychopathology. *Development and Psychopathology, 26*, 619-634. doi:10.1017/S0954579414000273

Kelleher, I., Harley, M., Lynch, F., Arseneault, L., Fitzpatrick, C., & Cannon, M. (2008). Associations between childhood trauma, bullying and psychotic symptoms among a school-based adolescent sample. *The British Journal of Psychiatry, 193*, 378-382. doi:10.1192/bjp.bp.108.049536

Kendrick, K., Jutengren, G., & Stattin, H. (2012). The protective role of supportive friends against bullying perpetration and victimization. *Journal of Adolescence, 35*, 1069-1080. doi:10.1016/j.adolescence.2012.02.014

Kessler, R. C., McLaughlin, K. A., Green, J. G., Gruber, M. J., Sampson, N. A., Zaslavsky, A. M., … & Benjet, C. (2010). Childhood adversities and adult psychopathology in the WHO World Mental Health Surveys. *The British Journal of Psychiatry, 197*, 378-385. doi:10.1192/bjp.bp.110.080499

Khatri, P., Kupersmidt, J. B., & Patterson, C. (2000). Aggression and peer victimization as predictors of self-reported behavioral and emotional adjustment. *Aggressive Behavior: Official Journal of the International Society for Research on Aggression, 26*, 345-358. doi:10.1002/1098-2337(2000)26:5<345::AID-AB1>3.0.CO;2-L

Kim, Y. S., & Leventhal, B. (2008). Bullying and suicide: A review. *International Journal of Adolescent Medicine and Health, 20*, 133-154. doi:10.1515/IJAMH.2008.20.2.133

Kinderman, P., & Bentall, R. P. (1996). A new measure of causal locus: The internal, personal and situational attributions questionnaire. *Personality and Individual Differences, 20*, 261-264. doi:10.1016/0191-8869(95)00186-7

Kinderman, P., & Bentall, R. P. (1997). Causal attributions in paranoia and depression: Internal, personal, and situational attributions for negative events. *Journal of Abnormal Psychology, 106*, 341-345. doi:10.1037//0021-843X.106.2.341

Kingsbury, W., & Espelage, D. L. (2007). Self-blaming attributions as mediators between victimization and psychological outcomes during early adolescence. *European Journal of Educational Psychology.*

Kistner, J. A. (2009). Sex differences in child and adolescent psychopathology: An introduction to the special section. *Journal of Clinical Child & Adolescent Psychology, 38*, 453-459. doi:10.1080/15374410902976387

Kochenderfer, B. J., & Ladd, G. W. (1997). Victimized children's responses to peers' aggression: Behaviors associated with reduced versus continued victimization. *Development and Psychopathology, 9*(1), 59-73.

Kochenderfer-Ladd, B. (2004). Peer victimization: The role of emotions in adaptive and maladaptive coping. *Social Development, 13*, 329-349. doi:10.1111/j.1467-9507.2004.00271.x

Kochenderfer-Ladd, B., & Wardrop, J. L. (2001). Chronicity and instability of children's peer victimization experiences as predictors of loneliness and social satisfaction trajectories. *Child Development, 72*, 134-151. doi:10.1111/1467-8624.00270

Kliewer, W. (2006). Violence exposure and cortisol responses in urban youth. *International Journal of Behavioral Medicine, 13*, 109-120. doi:10.1207/s15327558ijbm1302_2

Klomek, A. B., Marrocco, F., Kleinman, M. Schonfeld, I. S., & Gould, M. S. (2007). Bullying, depression, and suicidality in adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 46*, 40-49. doi:10.1097/01.chi.0000242237.84925.18

Klomek, A. B., Marrocco, F., Kleinman, M., Schonfeld, I. S., & Gould, M. S. (2008). Peer victimization, depression, and suicidality in adolescents. *Suicide and Life-Threatening Behavior, 38*, 166-180. doi:10.1521/suli.2008.38.2.166

Klomek, A. B., Sourander, A., & Gould, M. (2010). The association of suicide and bullying in childhood to young adulthood: A review of cross-sectional and longitudinal research findings. *The Canadian Journal of Psychiatry, 55*, 282-288. doi:10.1177/070674371005500503

Klomek, A. B., Sourander, A., Niemelä, S., Kumpulainen, K., Piha, J., Tamminen, T., … & Gould, M. S. (2009). Childhood bullying behaviors as a risk for suicide attempts and completed suicides: A population-based birth cohort study. *Journal of the American Academy of Child & Adolescent Psychiatry, 48*, 254-261. doi:10.1097/CHI.0b013e318196b91f

Kochel, K. P., Ladd, G. W., Bagwell, C. L., & Yabko, B. A. (2015). Bully/victim profiles' differential risk for worsening peer acceptance: The role of friendship. *Journal of Applied Developmental Psychology, 41*, 38-45. doi:10.1016/j.appdev.2015.05.002

Kokkinos, C. M., & Voulgaridou, I. (2018). Relational victimization, callous-unemotional traits, and hostile attribution bias among preadolescents. *Journal of School Violence, 17,* 111-122. doi:10.1080/15388220.2016.1222500

Kretschmer, T., Barker, E. D., Dijkstra, J. K., Oldehinkel, A. J., & Veenstra, R. (2015). Multifinality of peer victimization: Maladjustment patterns and transitions from early to mid-adolescence. *European Child & Adolescent Psychiatry, 24*, 1169-1179. doi:10.1007/s00787-014-0667-z

Ladd, G. W., & Kochenderfer-Ladd, B. (2002). Identifying victims of peer aggression from early to middle childhood: Analysis of cross-informant data for concordance, estimation of relational adjustment, prevalence of victimization, and characteristics of identified victims. *Psychological Assessment, 14*, 74-96. doi:10.1037/1040-3590.14.1.74

Lau, J. Y., & Waters, A. M. (2017). Annual Research Review: An expanded account of information-processing mechanisms in risk for child and adolescent anxiety and depression. *Journal of Child Psychology and Psychiatry, 58*, 387-407. doi:10.1111/jcpp.12653

Laye-Gindhu, A., & Schonert-Reichl, K. A. (2005). Nonsuicidal self-harm among community adolescents: Understanding the 'whats' and 'whys' of self-harm. *Journal of Youth and Adolescence, 34,* 447-457. doi:10.1007/s10964-005-7262-z

Ledley, D. R., Storch, E. A., Coles, M. E., Heimberg, R. G., Moser, J., & Bravata, E. A. (2006). The relationship between childhood teasing and later interpersonal functioning. *Journal of Psychopathology and Behavioral Assessment, 28*, 33-40. doi:10.1007/s10862-006-4539-9

Lereya, S. T., Copeland, W. E., Zammit, S., & Wolke, D. (2015). Bully/victims: A longitudinal, population-based cohort study of their mental health. *European Child & Adolescent Psychiatry, 24*, 1461-1471. doi:10.1007/s00787-015-0705-5

Liang, H., Flisher, A. J., & Lombard, C. J. (2007). Bullying, violence, and risk behavior in South African school students. *Child Abuse & Neglect, 31*, 161-171. doi:10.1016/j.chiabu.2006.08.007

Lien, L., Green, K., Welander-Vatn, A., & Bjertness, E. (2009). Mental and somatic health complaints associated with school bullying between 10th and 12th grade students: Results from cross sectional studies in Oslo, Norway. *Clinical Practice and Epidemiology in Mental Health, 5*, 1-8. doi:10.1186/1745-0179-5-6

Lin, E., Calvano, S. E., & Lowry, S. F. (2000). Inflammatory cytokines and cell response in surgery. *Surgery, 127,* 117-126. doi:10.1067/msy.2000.101584

Little, T. D., Jorgensen, T. D., Lang, K. M., & Moore, E. W. G. (2013). On the joys of missing data. *Journal of Pediatric Psychology, 39,* 151-162. doi:10.1093/jpepsy/jst048

Løhre, A., Lydersen, S., Paulsen, B., Mæhle, M., & Vatten, L. (2011). Peer victimization as reported by children, teachers, and parents in relation to children's health symptoms. *BMC Public Health, 11,* 278-284. doi:10.1186/1471-2458-11-278

Lund, R., Nielsen, K. K., Hansen, D. H., Kriegbaum, M., Molbo, D., Due, P., & Christensen, U. (2008). Exposure to bullying at school and depression in adulthood. A study of Danish men born in 1953. *The European Journal of Public Health, 19,* 111-116. doi:10.1093/eurpub/ckn101

Luten, A. G., Ralph, J. A., & Mineka, S. (1997). Pessimistic attributional style: Is it specific to depression versus anxiety versus negative affect? *Behaviour Research and Therapy, 35,* 703-719. doi:10.1016/S0005-7967(97)00027-2

MacDonald, G., & Leary, M. R. (2005). Why does social exclusion hurt? The relationship between social and physical pain. *Psychological Bulletin, 131,* 202-223. doi:10.1037/0033-2909.131.2.202

Maier, S. F., & Seligman, M. E. (2016). Learned helplessness at fifty: Insights from neuroscience. *Psychological Review, 123*. 349-367. doi:10.1037/rev0000033

Maines, B., & Robinson, G. (1998). The No Blame Approach to bullying. In Shorrocks-Taylor (Ed.), *Directions in Educational Psychology* (pp.281-295). London: Whurr Publishers.

Manly, J. T., Cicchetti, D., & Barnett, D. (1994). The impact of subtype, frequency, chronicity, and severity of child maltreatment on social competence and behavior problems. *Development & Psychopathology, 6,* 121-143. doi: 10.1017/S0954579400005915

Mantella, R. C., Butters, M. A., Amico, J. A., Mazumdar, S., Rollman, B. L., Begley, A. E., … & Lenze, E. J. (2008). Salivary cortisol is associated with diagnosis and severity of late-life generalized anxiety disorder. *Psychoneuroendocrinology, 33,* 773-781. doi:10.1016/j.psyneuen.2008.03.002

Martinelli, A., Ackermann, K., Bernhard, A., Freitag, C. M., & Schwenck, C. (2018). Hostile attribution bias and aggression in children and adolescents: A systematic literature review on the influence of aggression subtype and gender. *Aggression and Violent Behavior, 39,* 25-32. doi:10.1016/j.avb.2018.01.005

Masten, A. S., Morrison, P., & Pellegrini, D. S. (1985). A revised class play method of peer assessment. *Developmental Psychology, 21,* 523-533. doi:10.1037/0012-1649.21.3.523

McDougall, P., & Vaillancourt, T. (2015). Long-term adult outcomes of peer victimization in childhood and adolescence: Pathways to adjustment and maladjustment. *American Psychologist, 70*, 300-310. doi:10.1037/a0039174

McGee, T. R., Scott, J. G., McGrath, J. J., Williams, G. M., O'Callaghan, M., Bor, W., & Najman, J. M. (2011). Young adult problem behavior outcomes of adolescent bullying. *Journal of Aggression, Conflict and Peace Research, 3*, 110-114. doi:10.1108./17596591111132936

McMahon, E. M., Reulbach, U. Perry, I. J., Keeley, H. S., & Arensman, E. (2010). Bullying victimisation, self-harm and associated factors in Irish. *Social Science & Medicine, 71*, 1300-1307. doi:10.1016/j.socscimed.2010.06.034

Merrell, K. W. (2013). *Helping students overcome depression and anxiety: A practical guide*. New York: Guilford Publications.

Merton, R. K. (1948). The self-fulfilling prophecy. *The Antioch Review, 8*, 193-210. doi:10.2307/4609267

Mills, C., Guerin, S., Lynch, F., Daly, I., & Fitzpatrick, C. (2004). The relationship between bullying, depression and suicidal thoughts/behavior in Irish. Adolescents. *Irish Journal of Psychological Medicine, 21*, 112-116. doi:10.1017/S0790966700008521

Mishna, F., & Alaggia, R. (2005). Weighing the risks: A child's decision to disclose peer victimization. *Children & Schools, 27*, 217-226. doi:10.1093/cs/27.4.217

Moilanen, K. L., Shaw, D. S., & Maxwell, K. L. (2010). Developmental cascades: Externalizing, internalizing, and academic competence from middle childhood to early adolescence. *Development and Psychopathology, 22*, 635-653. doi:10.1017/S0954579410000337

Moon, S. S., Karlson, A., & Kim, Y. J. (2015). Peer victimization and adolescent suicide: The mediating effect of risk behaviors. *Child and Adolescent Social Work Journal, 32*, 257-268. doi:10.1007/s10560-014-0365-1

Morin, A. J., Arens, A. K., Maïano, C., Ciarrochi, J., Tracey, D., Parker, P. D., & Craven, R. G. (2017). Reciprocal relationships between teacher ratings of internalizing and externalizing behaviors in adolescents with different levels of cognitive abilities. *Journal of Youth and Adolescence, 46*, 801-825. doi:10.1007/s10964-016-0574-3

Morrow, M. T., Hubbard, J. A., & Sharp, M. K. (2018). Preadolescents' internal attributions for negative peer experiences: Links to child and classroom peer victimization and friendship. *Journal of Abnormal Child Psychology*, 1-12. doi:10.1007/s10802-018-0460-4

Munsch, J., & Wampler, R. S. (1993). Ethnic differences in early adolescents' coping with school stress. *American Journal of Orthopsychiatry, 63,* 633-646. doi:10.1037/h0079482

Murray-Close, D., Ostrov, J. M., & Crick, N. R. (2007). A short-term longitudinal study of growth of relational aggression during middle childhood: Associations with gender, friendship intimacy, and internalizing problems. *Development and Psychopathology, 19,* 187-203. doi:10.1017/S0954579407070101

Nansel, T. R., Overpeck, M., Pilla, R. S., Ruan, W. J., Simons-Morton, B., & Scheidt, P. (2001). Bullying behaviors among US youth: Prevalence and association with psychosocial adjustment. *JAMA, 285,* 2094-2100. doi:10.1001/jama.285.16.2094

Nation, M. (2007). Empowering the victim: Interventions for children victimized by bullies. In J. E. Zins, M .J. Elias, & C. A. Maher (Eds.), *Bullying, victimization, and peer harassment* (pp. 239-255). New York: Haworth Press.

NICHD Early Child Care Research Network, & Arsenio, W. F. (2004). Trajectories of physical aggression from toddlerhood to middle childhood: Predictors, correlates, and outcomes. *Monographs of the Society for Research in Child Development*, *69*(4), 1-143.

Nicolaides, S., Toda, Y., & Smith, P. K. (2002). Knowledge and attitudes about school bullying in trainee teachers. *British Journal of Educational Psychology, 72,* 105-118. doi:10.1348/000709902158793

Niemelä, S., Brunstein-Klomek, A. Sillanmäki, L., Helenius, H., Piha, J., Kumpulainen, K., … & Sourander, A. (2011). Childhood bullying behaviors at age eight and substance use at age 18 among males. A nationwide prospective study. *Addictive Behaviors, 36,* 256-260. doi:10.1016/j/addbeh.2010.10.012

Nishina, A., Juvonen, J., & Witkow, M. R. (2005). Sticks and stones may break my bones, but names will make me feel sick: The psychosocial, somatic, and scholastic consequences of peer harassment. *Journal of Clinical Child and Adolescent Psychology, 34,* 37-48. doi:10.1207/s15374424jccp3401_4

Nixon, C. L., Linkie, C. A., Coleman, P.K., & Fitch, C. (2011). Peer relational victimization and somatic complaints during adolescence. *Journal of Adolescent Health, 49,* 294-299. doi:10.1016/j.jadohealth.2010.12.018

Nolen-Hoeksema, S., Girgus, J. S., & Seligman, M. E. P. (1986). Learned helplessness in children: A longitudinal study of depression, achievement, and explanatory style. *Journal of Personality and Social Psychology, 51,* 435-442. doi:10.1037/0022-3514.51.2.435

Novick, R. M., & Isaacs, J. (2010). Telling is compelling: The impact of student reports of bullying on teacher intervention. *Educational Psychology, 30,* 283-296. doi:10.1080/01443410903573123

Oliver, C., & Candappa, M. (2007). Bullying and the politics of 'telling'. *Oxford Review of Education, 33*, 71-86. doi:10.1080/03054980601094594

Olweus, D. (1973). *Whipping boys and bullies*. Stockholm: Almquist and Wiksell.

Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Cambridge, MA: Blackwell.

Olweus, D. (1994). Bullying at school: Basic facts and effects of a school based intervention program. *Journal of Child Psychology and Psychiatry, 35*, 1171-1190. doi:10.1111/j.1469-7610.1994.tb01229.x

Olweus, D. (2013). School bullying: Development and some important challenges. Annual *Review of Clinical Psychology, 9*, 751-780. doi:10.1146/annurev-clinpsy-050212-185516

Olweus, D., & Limber, S. P. (2010). Bullying in school: Evaluation and dissemination of the Olweus Bullying Prevention Program. *American Journal of Orthopsychiatry, 80*, 124-134. doi:10.1111/j.1939-0025.2010.01015.x

Orth, U., Berking, M., & Burkhardt, S. (2006). Self-conscious emotions and depression: Rumination explains why shame but not guilt is maladaptive. *Personality and Social Psychology Bulletin, 32*, 1608-1619. doi:10.1177/0146167206292958

Ouellet-Morin, I., Odgers, C. L., Danese, A., Bowes, L., Shakoor, S., Papadopoulos, A. S., ... & Arseneault, L. (2011). Blunted cortisol responses to stress signal social and behavioral problems among maltreated/bullied 12-year-old children. *Biological Psychiatry, 70*, 1016-1023. doi:10.1016/j.biopsych.2011.06.017

Overbeek, G., Zeevalkink, H., Vermulst, A., & Scholte, R. H. (2010). Peer victimization, self-esteem, and ego resilience types in adolescents: A prospective analysis of person-context interactions. *Social Development, 19*, 270-284. doi:10.1111/j.1467-9507.2008.00535.x

Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin, 102*(3), 357-389.

Pastrana, F. A., Craig, J. T., Gregus, S. J., Hernandez Rodriguez, J., Bridges, A. J., & Cavell, T. A. (2018). Identifying children repeatedly victimized by peers: A preliminary study. *Journal of School Violence*, 1-13. doi:10.1080/15388220.2018.1468764

Paul, J. J., & Cillessen, A. H. (2003). Dynamics of peer victimization in early adolescence: Results from a four-year longitudinal study. *Journal of Applied School Psychology, 19*, 25-43. doi:10.1300/J008v19n02_03

Paul, J. J., & Cillessen, A. H. (2007). Results from a Four-Year Longitudinal Study. In J. E. Zins, M. J. Elias, & C. A. Maher, *Bullying, Victimization, and Peer Harassment: A Handbook of Prevention and Intervention* (pp. 29-47). New York, London, Oxford: Haworth Press

Pedhazur, E. J. (1997). Canonical and discriminant analysis, and multivariate analysis of variance. In *Multiple Regression in Behavior Research* (3rd Edition, pp. 924-979). Forth Worth, TX: Harcourt Brace.

Peets, K., & Kikas, E. (2006). Aggressive strategies and victimization during adolescence: Grade and gender differences, and cross-informant agreement. *Aggressive Behavior: Official Journal of the International Society for Research on Aggression, 32*, 68-79. doi:10.1002/ab.20105

Pellegrini, A. D., Bartini, M., & Brooks, F. (1999). School bullies, victims, and aggressive victims: Factors relating to group affiliation and victimization in early adolescence. *Journal of Educational Psychology, 91*, 216-224. doi:10.1037/0022-0663.91.2.216

Pepler, D. J., Craig, W. M., Connolly, J. A., Yuile, A., McMaster, L., & Jiang, D. (2006). A developmental perspective on bullying. *Aggressive Behavior: Official Journal of the International Society for Research on Aggression, 32*, 376-384. doi:10.1002/ab.20136

Perren, S., Ettekal, I., & Ladd, G. (2013). The impact of peer victimization on later maladjustment: Mediating and moderating effects of hostile and self-blaming attributions. *Journal of Child Psychology and Psychiatry, 54*, 46-55. doi:10.1111/j.1469-7610.2012.02618.x

Perry, D. G., Hodges, E. V., & Egan, S. K. (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: Guilford Press.

Pikas, A. (1989). The common concern method for the treatment of mobbing. In E. Roland & E. Munthe (Eds.), *Bullying: An International Perspective* (pp. 91-105). London: David Fulton.

Pollak, S. D., & Tolley-Schell, S. A. (2003). Selective attention to facial emotion in physically-abused children. *Journal of Abnormal Psychology, 112*, 323-338. doi:10.1037/0021-843X.112.3.323

Pope, A. W., & Bierman, K. L. (1999). Predicting adolescent peer problems and antisocial activities: The relative roles of aggression and dysregulation. *Developmental Psychology, 35*, 335-346. doi:10.1037/0012-1649.35.2.335

Poulin, F., & Boivin, M. (2000). Reactive and proactive aggression: Evidence of a two-factor model. *Psychological Assessment, 12*, 115-122. doi:10.1037/1040-3590.12.2.115

Price, M., Chin, M. A., Higa-McMillan, C., Kim, S., & Frueh, B. C. (2013). Prevalence and internalizing problems of ethnoracially diverse victims of traditional and cyber bullying. *School Mental Health, 5*, 183-191. doi:10.1007/s12310-013-9104-6

Price, S., & Jones, R. A. (2001). Reflections on anti-bullying peer counseling in a comprehensive school. *Educational Psychology in Practice, 17*, 35-40. doi:10.1080/02667360120039960

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*, 479-491. doi:10.1207/S15374424JCCP3004_05

Pryce, J., Giovannetti, S., Spencer, R., Elledge, L. C., Gowdy, G., Whitley, M. L., & Cavell, T. A. (2015). Mentoring in the social context: Mentors' experiences with mentees' peers in a site-based program. *Children and Youth Services Review, 56*, 185-192. doi:10.1016/j.childyouth.2015.06.015

Randa, R., Reyns, B. W., & Nobles, M. R. (2016). Measuring the effects of limited and persistent school bullying victimization: Repeat victimization, fear, and adaptive behaviors. *Journal of Interpersonal Violence*, 1-24. doi:10.1177/0886260516641279

Reijntjes, A., Kamphuis, J. H., Prinzie, P., Boelen, P. A., Van der Schoot, M., & Telch, M. J. (2011). Prospective linkages between peer victimization and externalizing problems in children: A meta-analysis. *Aggressive Behaviors, 37*, 215-222. doi:10.1002/ab.20374

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*, 244-252. doi:10.1016/j.chiabu.2009.07.009

Renshaw, T. L., & Jimerson, S. R. (2012). Enhancing student attitudes via a brief, universal-level bullying prevention curriculum. *School Mental Health, 4*, 115-128. doi:10.1007/s12310-011-9069-2

Rigby, K. (1999). Peer victimisation at school and the health of secondary school students. *British Journal of Educational Psychology, 69*, 95-104. doi:10.1348/000709999157590

Rigby, K. (2000). Effects of peer victimization in schools and perceived social support on adolescent well-being. *Journal of Adolescence, 23*, 57-68. doi:10.1006/jado.1999.0289

Rigby, K. (2005). The Method of Shared Concern as an intervention technique to address bullying in schools: An overview and appraisal. *Australian Journal of Guidance & Counselling, 15*, 27-34. doi:10.1375/ajgc.15.1.27

Rigby, K., & Barnes, A. (2002). To tell or not to tell: The victimised student's dilemma. *Youth Studies Australia, 21*. Retrieved from http://www.youthpolicy.org/journals/youth-studies-australia/

Rigby, K., & Griffiths, C. (2011). Addressing cases of bullying through the Method of Shared Concern. *School Psychology International, 32*, 345-357. doi:10.1177/0143034311402148

Rigby, K., & Slee, P. T. (1991). Bullying among Australian school children: Reported behavior and attitudes toward victims. *The Journal of Social Psychology, 131*, 615-627. doi:10.1080/00224545.1991.9924646

Rigby, K., & Slee, P. (1999). Suicidal ideation among adolescent school children, involvement in bully-victim problems, and perceived social support. *Suicide and Life-Threatening Behavior, 29*, 119-130. doi:10.1111/j.1943-278X.1999.tb01050.x

Robers, S., Zhang, A., & Morgan, R. E. (2015). *Indicators of School Crime and Safety: 2014 (NCES 2015-072/NCJ 248036)*. National Center for Educational Statistics.

Romano, E. Weegar, K., Babchishin, L., & Saini, M. (2018). Cross-informant on mental health outcomes in children with maltreatment histories: A systematic review. *Psychology of Violence, 8*, 19-30. doi:10.1037/vio0000086

Rønning, J. A., Sourander, A., Kumpulainen, K., Tamminen, T., Niemelä, S., Moilanen, I., … & Almqvist, F. (2009). Cross-informant agreement about bullying and victimization among eight-year-olds: Whose information best predicts psychiatric caseness 10-15 years later? *Social Psychiatry and Psychiatric Epidemiology, 44*, 15-22. doi:10.1007/s00127-008-0395-0

Rosen, P. J., Milich, R., & Harris, M. J. (2007). Victims of their own cognitions: Implicit social cognitions, emotional distress, and peer victimization. *Journal of Applied Developmental Psychology, 28*, 211-226. doi:10.1016/j.appdev.2007.02.001

Rosen, L. H., Underwood, M. K., Beron, K. J., Gentsch, J. K., Wharton, M. E., & Rahdar, A. (2009). Persistent versus periodic experiences of social victimization: Predictors of adjustment. *Journal of Abnormal Child Psychology, 37*, 693-704. doi:10.1007/s10802-009-9311-7

Roth, D. A., Coles, M. E., & Heimberg, R. G. (2002). The relationship between memories for childhood teasing and anxiety and depression in adulthood. *Journal of Anxiety Disorders, 2*, 149-164. doi:10.1016/S0887-6185(01)00096-2

Rothon, C., Head, J., Klineberg, E., & Stansfeld, S. (2011). Can social support protect bullied adolescents from adverse outcomes? A prospective study on the effects of bullying on the educational achievement and mental health of adolescents at secondary schools in East London. *Journal of Adolescence, 34*, 579-588. doi:10.1016/j.adolescence.2010.02.007

Rubin, K. H., Coplan, R. J., & Bowker, J. C. (2009). Social withdrawal in childhood. *Annual Review of Psychology, 60*, 141-171. doi:10.1146/annurev.psych.60.110707.163642

Rudolph, K. D., Lansford, J. E., Agoston, A. M., Sugimura, N., Schwartz, D., Dodge, K. A., … & Bates, J. E. (2014). Peer victimization and social alienation: Predicting deviant peer affiliation in middle school. *Child Development, 85*, 124-139. doi:10.1111/cdev.12112

Rudolph, K. D., Troop-Gordon, W., Hessel, E. T., & Schmidt, J. D. (2011). A latent growth curve analysis of early and increasing peer victimization as predictors of mental health across elementary school. *Journal of Clinical Child & Adolescent Psychology, 40*, 111-122. doi:10.1080/15374416.2011.533413

Rueger, S., Malecki, C., & Demaray, M. (2011). Stability of peer victimization in early adolescence: Effects of timing and duration. *Journal Of School Psychology, 49*, 443-464. doi:10.1016/j.jsp.2011.04.005

Ryan, W., & Smith, J. D. (2009). Antibullying programs in schools: How effective are evaluation practices? *Prevention Science, 10*, 248-259. doi:10.1007/s11121-009-0128-y

Ryoo, J. H., Wang, C., & Swearer, S. M. (2015). Examination of the change in latent statuses in bullying behaviors across time. *School Psychology Quarterly, 30*, 105-122. doi:10.1037/spq0000082

Salmivalli, C., Kaukiainen, A., & Voeten, M. (2005). Anti-bullying intervention: Implementation and outcome. *British Journal of Educational Psychology, 75*, 465-487. doi:10.1348/000709905X26011

Salmivalli, C., & Nieminen, E. (2002) Proactive and reactive aggression in bullies, victims, and bully-victims. *Aggressive Behavior, 28*, 30-44. doi:10.1002/ab.90004

Salzer Burks, V., Laird, R. D., Dodge, K. A., Pettit, G. S., & Bates, J. E. (1999). Knowledge structures, social information processing, and children's aggressive behavior. *Social Development, 8*, 220-236. doi:10.1111/1467-9507.00092

Sandoval, A., Vyskocilova, J., Hruby, R., Prasko, J., Jelenova, D., Kamadorova, D., ... & Vrbova, K. (2015). Childhood bullying experiences as a factor predisposing to mental problems in adulthood. *Activitas Nervosa Superior Rediviva*, *57*(4), 112-121.

Sapouna, M., Wolke, D. Vannini, N. Watson, S., Woods, S., Schneider, W., … & Aylett, R. (2012). Individual and social network predictors of the short-term stability of bullying victimization in the United Kingdom and Germany. *British Journal of Educational Psychology, 82*, 225-240. doi:10.1111/j.2044-8279.2011.02022.x

Schacter, H. L., & Juvonen, J. (2015). The effects of school-level victimization on self-blame: Evidence for contextualized social cognitions. *Developmental Psychology, 51*(6), 841-847. doi:10.1037/dev0000016

Schäfer, M., Korn, S., Brodbeck, F. C., Wolke, D., & Schulz, H. (2005). Bullying roles in changing contexts: The stability of victim and bully roles from primary to secondary school. *International Journal of Behavioral Development, 29*, 323-335. doi:10.1177/01650250544000107

Schäfer, M., Korn, S., Smith, P. K., Hunter, S. C., Mora-Merchán, J. A., Singer, M. M., & Van der Meulen, K. (2004). Lonely in the crowd: Recollections of bullying. *British Journal of Developmental Psychology, 22*, 379-394. doi:10.1348/0261510041552756

Scheithauer, H., Hayer, T., Petermann, F., & Jugert, G. (2006). Physical verbal, and relational forms of bullying among German students: Age trends, gender differences, and correlates. *Aggressive Behavior, 32*, 261-275. doi:10.1002/ab.20128

Scholte, R. H., Burk, W. J., & Overbeek, G. (2013). Divergence in self- and peer-reported victimization and its association to concurrent and prospective adjustment. *Journal of Youth and Adolescence, 42*, 1789-1800. doi:10.1007/s10964-012-9896-y

Scholte, R. H., Engels, R. C., Overbeek, G., de Kemp, R. A., & Haselager, G. J. (2007). Stability in bullying and victimization and its association with social adjustment in childhood and adolescence. *Journal of Abnormal Child Psychology, 35*, 217-228. doi:10.1007/s10802-006-9074-3

Schwartz, D., Dodge, K. A., Pettit, G. S., & Bates, J. E. (1997). The early socialization of aggressive victims of bullying. *Child Development, 68*, 665-675. doi:10.1111/j.1467-8624.1997.tb04228.x

Schwartz, D., Gorman, A. H., Nakamoto, J., & Toblin, R. L. (2005). Victimization in the peer group and children's academic functioning. *Journal of Educational Psychology, 97*, 425-435. doi:10.1037/0022-0663.97.3.425

Schwartz, D., Lansford, J. E., Dodge, K. A., Pettit, G. S., & Bates, J. E. (2015). Peer victimization during middle childhood as a lead indicator of internalizing and diagnostic outcomes in late adolescence. *Journal of Clinical Child & Adolescent Psychology, 44*, 393-404. doi:10.1080/15374416.2014.881293

Seaton, E. K., Neblett, E. W., Cole, D. J., & Prinstein, M. J. (2013). Perceived discrimination and peer victimization among African American and Latino youth. *Journal of Youth and Adolescence, 42*, 342-350. doi:10.1007/s10964-012-9848-6

Shea, A., Walsh, C., MacMillan, H., & Steiner, M. (2005). Child maltreatment and HPA axis dysregulation: Relationship to major depressive disorder and post-traumatic stress disorder in females. *Psychoneuroendocrinology, 30*, 162-178. doi:10.1016/j.psyneuen.2004.07.001

Seligman, M. E. (1972). Learned helplessness. *Annual Review of Medicine, 23*, 407-412. doi:10.1146/annurev.me.23.020172.002203

Seligman, M. E., & Beagley, G. (1975). Learned helplessness in the rat. *Journal of Comparative & Physiological Psychology, 88*, 534-541. doi:10.1037/h0076430

Seligman, M. E., & Groves, D. P. (1970). Nontransient learned helplessness. *Psychonomic Science, 19*, 191-192. doi:10.3758/BF03335546

Sentse, M. Scholte, R., Salmivalli, C., & Voeten, M. (2007). Person-group dissimilarity in involvement in bullying and its relation with social status. *Journal of Abnormal Child Psychology, 35*, 1009-1019. doi:10.1007/s10802-007-9150-3

Sharp, S., Thompson, D., & Arora, T. (2000). How long before it hurts? An investigation into long-term bullying. *School Psychology International, 21*, 37-46. doi:10.1177/0143034300211003

Shelley, D., & Craig, W. M. (2010). Attributions and coping styles in reducing victimization. *Canadian Journal of School Psychology, 25*, 84-100. doi:10.1177/0829573509357067

Sheppard, C. S., Giletta, M., & Prinstein, M. J. (2016). Peer victimization trajectories at the adolescent transition: Associations among chronic victimization, peer-reported status, and adjustment. *Journal of Clinical Child & Adolescent Psychology, 48*, 218-227. doi:10.1080/15374416.2016.1261713

Shin, Y. L. (2006). Cross-informant measures of peer victimization on psychosocial maladjustment in middle childhood-comparisons between self-reports and peer nominations. *Journal of Korean Home Management Association, 24*. Retrieved from http://www.koreascience.or.kr/journal/AboutJournal.jsp?kojic=GJGRBW

Sjöberg, R. L., Nilsson, K. W., & Leppert, J. (2005). Obesity, shame, and depression in school-aged children: A population-based study. *Pediatrics, 116*, e389-e392. doi:10.1542/peds.2005-0170

Slee, P. T. (1994). Situational and interpersonal correlates of anxiety associated with peer victimisation. *Child Psychiatry and Human Development, 25*, 97-107. doi:10.1007/BF02253289

Smith, J. D., Schneider, B. H., Smith, P. K., & Ananiadou, K. (2004). The effectiveness of whole-school antibullying programs: A synthesis of evaluation research. *School Psychology Review, 33*. Retrieved from http://naspjournals.org/loi/spsr

Smith, P. K., Morita, Y., Junger-Tas, J., Olweus, D., Catalano, R., & Slee, P. (1999). *The nature of school bullying: A cross-national perspective*. London: Routledge.

Smith, P. K., Pepler, D., & Rigby, K. (2004). *Bullying in schools: How successful can interventions be?* New York: Cambridge University Press.

Smith, P. K., & Shu, S. (2000). What good schools can do about bullying findings from a survey in English schools after a decade of research and action. *Childhood, 7*, 193-212. doi:10.1177/0907568200007002005

Smithyman, T. F., Fireman, G. D., & Asher, Y. (2014). Long-term psychosocial consequences of peer victimization: From elementary to high school. *School Psychology Quarterly, 29*, 64-76. doi:10.1037/spq00000053

Smokowski, P. R., Evans, C. B., & Cotter, K. L. (2014). The differential impacts of episodic, chronic, and cumulative physical bullying and cyberbullying: The effects of victimization on the school experiences, social support, and mental health of rural adolescents. *Violence and Victims, 29*, 1029-1046. doi:10.1891/0886-6708.W-D-13-00076

Solberg, M. E., & Olweus, D. (2003). Prevalence estimation of school bullying with the Olweus Bully/Victim Questionnaire. *Aggressive Behavior, 29*, 239-268. doi:10.1002/ab.10047

Soriano, F. I., Rivera, L. M., Williams, K. J., Daley, S. P., & Reznik, V. M. (2004). Navigating between cultures: The role of culture in youth violence. *Journal of Adolescent Health, 34*, 169-176. doi:10.1016/j.jadohealth.2003.07.015

Sourander, A., Gyllenberg, D., Klomek, A. B., Sillanmäki, L., Ilola, A. M., & Kumpulainen, K. (2016). Association of bullying behavior at 8 years of age and use of specialized services for psychiatric disorders by 29 years of age. *JAMA Psychiatry, 73*, 159-165. doi:10.1001/jamapsychiatry.2015.2419

Sourander, A., Jensen, P., Rönning, J. A., Niemelä, S., Helenius, H., Sillanmäki, L., … & Almqvist, F. (2007). What is the early adulthood outcome of boys who bully or are bullied in childhood? The Finnish "From a Boy to a Man" study. *Pediatrics, 120*, 397-404. doi:10.1542/peds.2006-2704

Sourander, A., Ronning, J., Brunstein-Klomek, A., Gyllenberg, D., Kumpulainen, K., Niemelä, S., ... & Moilanen, I. (2009). Childhood bullying behavior and later psychiatric hospital and psychopharmacologic treatment: findings from the Finnish 1981 birth cohort study. *Archives of General Psychiatry, 66*, 1005-1012. doi:10.1001/archgenpsychiatry.2009.122

Stapinski, L. A., Bowes, L., Wolke, D., Pearson, R. M., Mahedy, L., Button, K. S., … & Araya, R. (2014). Peer victimization during adolescence and risk for anxiety disorders in adulthood: A prospective cohort study. *Depression and Anxiety, 31*, 574-582. doi:10.1002/da.22270

Stark, K. D., & Kendall, P. C. (1996). *Treating depressed children: Therapist manual for Taking Action*. Workbook Pub.

Stiensmeier-Pelster, J., & Heckhausen, H. (2018). Causal attribution of behavior and achievement. In J. Heckhausen & H. Heckhausen (Eds), *Motivation and action* (pp. 623-678). New York: Springer.

Stockdale, M. S., Hangaduambo, S., Duys, D., Larson, K., & Sarvela, P. D. (2002). Rural elementary students', parents', and teachers' perceptions of bullying. *American Journal of Health Behavior, 26,* 266-277. doi:10.5993/AJHB.26.4.3

Storch, E. A., Nock, M. K., Masia-Warner, C., & Barlas, M. E. (2003). Peer victimization and social-psychological adjustment in Hispanic and African-American children. *Journal of Child and Family Studies, 12,* 439-452. doi:10.1023/A:1026016124091

Strauss, C. C., Forehand, R., Smith, K., & Frame, C. L. (1986). The association between social withdrawal and internalizing problems of children. *Journal of Abnormal Child Psychology, 14,* 525-535. doi:10.1007/BF01260521

Strohmeier, D., Wagner, P., Spiel, C., & von Eye, A. (2010). Stability and constancy of bully-victim behavior: Looking at variables and individuals. *Journal of Psychology, 218,* 185-193. doi:10.1027/0044-3409/a000028

Sumter, S. R., Baumgartner, S. E., Valkenburg, P. M., & Peter, J. (2012). Developmental trajectories of peer victimization: Off-line and online experiences during adolescence. *Journal of Adolescent Health, 50,* 607-613. doi:10.1016/j.jadohealth.2011.10.251

Swearer, S. M., & Doll, B. (2001). Bullying in schools: An ecological framework. *Journal of Emotional Abuse, 2,* 7-23. doi:10.1300/J135v02n02n02_02

Swearer, S. M., Espelage, D. L., Vaillancourt, T., & Hymel, S. (2010). What can be done about school bullying? Linking research to educational practice. *Educational Researcher, 39,* 38-47. doi:10.3102/0013189X09357622

Swearer Napolitano, S. M., Collins, A., Radliff, K. H., & Wang, C. (2011). Internalizing problems in students involved in bullying and victimization. In *Bullying in North American Schools* (2nd ed., Ch. 5, pp. 45-61). Routledge.

Sweeting, H. Young, R., West, P., & Der, G. (2006). Peer victimization and depression in early-mid adolescence: A longitudinal study. *British Journal of Educational Psychology, 76,* 577-594. doi:10.1348/000709905X49890

Takizawa, R., Maughan, B., & Arseneault, L. (2014). Adult health outcomes of childhood bullying victimization: Evidence from a five-decade longitudinal British birth cohort. *American Journal of Psychiatry, 171,* 777-784. doi:10.1176/appi.ajp.2014.13101401

Tarullo, A. R., & Gunnar, M. R. (2006). Child maltreatment and the developing HPA axis. *Hormones and Behavior, 50,* 632-639. doi:10.1016/j.yhbeh.2006.06.010

Taylor, K. A., Sullivan, T. N., & Kliewer, W. (2013). A longitudinal path analysis of peer victimization, threat appraisals to the self, and aggression, anxiety, and depression among urban African American adolescents. *Journal of Youth and Adolescence, 42,* 178-189. doi:10.1007/s10964-012-9821-4

Telzer, E. H., Miernicki, M. E., & Rudolph, K. D. (2018). Chronic peer victimization heightens neural sensitivity to risk taking. *Development and Psychopathology, 30*, 13-26. doi:10.1017/S0954579417000438

Triandis, H. C., Marin, G., Lisansky, J., & Betancourt, H. (1984). Simpatía as a cultural script of Hispanics. *Journal of Personality and Social Psychology, 47*, 1363-1375. doi:10.1037/0022-3514.47.6.1363

Trickett, P. K., Noll, J. G., Susman, E. J., Shenk, C. E., & Putnam, F. W. (2010). Attenuation of cortisol across development for victims of sexual abuse. *Development and Psychopathology, 22*, 165-175. doi:10.1017/S0954579409990332

Troop-Gordon, W., & Ladd, G. W. (2005). Trajectories of peer victimization and perceptions of the self and schoolmates: Precursors to internalizing and externalizing problems. *Child Development, 76*, 1072-1091. doi:10.1111/j.1467-8624.2005.00898.x

Ttofi, M. M., & Farrington, D. P. (2011). Effectiveness of school-based programs to reduce bullying: A systematic and meta-analytic review. *Journal of Experimental Criminology, 7*, 27-56. doi:10.1007/s11292-010-9109-1

Ttofi, M. M., Farrington, D. P., Lösel, F., & Loeber, R. (2011). Do the victims of school bullies tend to become depressed later in life? A systematic review and meta-analysis of longitudinal studies. *Journal of Aggression, Conflict and Peace Research, 3*, 63-73. doi:10.1108/17596591111132873

Turnbull, A. V., & Rivier, C. (1995). Regulation of the HPA axis by cytokines. *Brain, behavior, and immunity, 9*, 253-275. doi:10.1006/brbi.1995.1026

Underwood, M. K. (2003). *Social Aggression Among Girls*. New York: Guilford Press.

Underwood, M. K. (2004). Gender and peer relations: Are the two gender cultures really all that different? In J. B. Kupersmidt & K. A. Dodge (Eds.), *Decade of Behavior. Children's Peer Relations: From Development to Intervention* (pp. 21-36). Washington, DC: American Psychological Association. doi:10.1037/10653-002

Vaillancourt, T., Brittain, H. L., McDougall, P., & Duku, E. (2013). Longitudinal links between childhood peer victimization, internalizing and externalizing problems, and academic functioning: Developmental cascades. *Journal of Abnormal Child Psychology, 41*, 1203-1215. doi:10.1007/s10802-013-9781-5

Vaillancourt, T., Hymel, S., & McDougall, P. (2013). The biological underpinnings of peer victimization: Understanding why and how the effects of bullying can last a lifetime. *Theory Into Practice, 52*, 241-248. doi:10.1080/00405841.2013.829726

Vajani, M., Annest, J. L., Crosby, A. E., Alexander, J. D., & Millet, L. M. (2007). Nonfatal and fatal self-harm injuries among children aged 10-14 years—United States and Oregon, 2001-2003. *Suicide and Life-Threatening Behavior, 37*, 493-506. doi:10.1521/suli.2007.37.5.493

Van der Wal, M. F., De Wit, C. A., & Hirasing, R. A. (2003). Psychosocial health among young victims and offenders of direct and indirect bullying. *Pediatrics, 111*, 1312-1317. doi:10.1542/peds.111.6.1312

van Geel, M., Goemans, A., & Vedder, P. H. (2016). The relation between peer victimization and sleeping problems: A meta-analysis. *Sleep Medicine Reviews, 27*, 89-95. doi:10.1016/j.smrv.2015.05.004

van Geel, M. Vedder, P., & Tanilon, J. (2014). Relationship between peer victimization, cyberbullying, and suicide in children and adolescents: A meta-analysis. *JAMA Pediatrics, 168*, 435-442. doi:10.1001/jamapediatrics.2013.4143

Van West, D., Claes, S., Sulon, J., & Deboutte, D. (2008). Hypothalamic-pituitary-adrenal reactivity in prepubertal children with social phobia. *Journal of Affective Disorders, 111*, 281-290. doi:10.1016/j.jad.2008.03.006

Varela, R. E., Niditch, L. A., Hensley-Maloney, L., Moore, K. W., Creveling, C. C., & Jones, K. M. (2019). Culture specific influences on anxiety in Latino youth. In *Child & Youth Care Forum, 48(1)* (pp. 1-17). United States: Springer. doi:10.1007/s10566-018-9476-8

Varela, R. E., Vernberg, E. M., Sanchez-Sosa, J. J., Riveros, A., Mitchell, M., & Mashunkashey, J. (2004). Anxiety reporting and culturall associated interpretation biases and cognitive schemas: A comparison of Mexican, Mexican American, and European American families. *Journal of Clinical Child and Adolescent Psychology, 33*, 237-247. doi:10.1207/s15374424jccp3302_4

Vassallo, S., Edwards, B., Renda, J., & Olsson, C. A. (2014). Bullying in early adolescence and antisocial behavior and depression six years later: What are the protective factors? *Journal of School Violence, 13*, 100-124. doi:10.1080/15388220.2013.840643

Vernberg, E. M., Nelson, T. D., Fonagy, P., & Twemlow, S. W. (2011). Victimization, aggression, and visits to the school nurse for somatic complaints, illnesses, and physical injuries. *Pediatrics-English Edition, 127*, 842-848. doi:10.1542/peds.2009-3415

Vitoroulis, I., & Vaillancourt, T. (2015). Meta-analytic results of ethnic group differences in peer victimization. *Aggressive behavior, 41*, 149-170. doi:10.1002/ab.21564

Volk, A. A., Dane, A. V., & Marini, Z. A. (2014). What is bullying? A theoretical redefinition. *Developmental Review, 34*, 327-343. doi:10.1016/j.dr.2014.09.001

Volk, A. A., Veenstra, R., & Espelage, D. L. (2017). So you want to study bullying? Recommendations to enhance the validity, transparency, and compatibility of bullying research. *Aggression and Violent Behavior, 36,* 34-43. doi:10.1016/j.avb.2017.07.003

von Klitzing, K., Perren, S., Klein, A. M., Stadelmann, S., White, L. O., Groeben, M., … & Hatzinger, M. (2012). The interaction of social risk factors and HPA axis dysregulation in predicting emotional symptoms of five-and six-year-old children. *Journal of Psychiatric Research, 46,* 290-297. doi:10.1016/j.jpsychires.2011.12.004

Vreeburg, S. A., Zitman, F. G., van Pelt, J., DeRijk, R. H., Verhagen, J. C., van Dyck, R., … & Penninx, B. W. (2010). Salivary cortisol levels in persons with and without different anxiety disorders. *Psychosomatic Medicine, 72,* 340-347. doi:10.1097/PSY.0b013e3181d2f0c8

Waasdorp, T. E., & Bradshaw, C. P. (2011). Examining student responses to frequent bullying: A latent class approach. *Journal of Educational Psychology, 103*, 336-352. doi:10.1037/a0022747

Wade, R., Shea, J. A., Rubin, D., & Wood, J. (2014). Adverse childhood experiences of low-income urban youth. *Pediatrics, 134*, e13-20. doi:10.1542/peds.2013-2475

Walker, L. S., Smith, C. A., Garber, J., & Claar, R. L. (2005). Testing a model of pain appraisal and coping in children with recurrent abdominal pain. *Health Psychology, 24,* 364–374. doi:10.1037/0278-6133.24.4.364

Wasserman, D., Cheng, Q. I., & Jiang, G. X. (2005). Global suicide rates among young people aged 15-19. *World Psychiatry, 4*(2), 114-120.

Webb, M., Heisler, D., Call, S., Chickering, S. A., & Colbum, T. A. (2007). Shame, guilt, symptoms of depression, and reported history of psychological maltreatment. *Child Abuse & Neglect, 31,* 1143-1153. doi:10.1016/j.chiabu.2007.09.003

Weems, C. F., Costa, N. M., Watts, S. E., Taylor, L. K., & Cannon, M. F. (2007). Cognitive errors, anxiety sensitivity, and anxiety control beliefs: Their unique and specific associations with childhood anxiety symptoms. *Behavior Modification, 31,* 174-201. doi:10.1177/0145445506297016

Wegge, D. Vandebosch, H., Eggermont, S., Van Rossem, R., & Walrave, M. (2016). Divergent perspectives: Exploring a multiple informant approach to cyberbullying victimization and perpetration. *European Journal on Criminal Policy and Research, 22,* 235-251. doi:10.1007/s10610-015-9287-5

Weiner, B. (1972). Attribution theory, achievement motivation, and the educational process. *Review of Educational Research, 42*, 203-215. doi:10.3102/00346543042002203

Weiner, B. (1982). An attribution theory of motivation and emotion. *Series in Clinical & Community Psychology: Achievement, Stress, & Anxiety*, 223-245.

Weiner, B. (1986). Attribution, emotion, and action. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (pp. 281-312). New York: Guilford Press.

Weiner, B. (2006). *Social motivation, justice, and the moral emotions: An attributional approach*. New York: Psychology Press.

Weiner, B. (2014). The attribution approach to emotion and motivation: History, hypotheses, home runs, headaches/heartaches. *Emotion Review, 6*, 353-361. doi:10.1177/1754073914534502

Wiener, J., & Mak, M. (2009). Peer victimization in children with attention-deficit/hyperactivity disorder. *Psychology in the Schools, 46,* 116-131. doi:10.1002/pits.20358

Wienke Totura, C. M., Green, A. E., Karver, M. S., & Gesten, E. L. (2009). Multiple informants in the assessment of psychological, behavioral, and academic correlates of bullying and victimization in middle school. *Journal of Adolescence, 32,* 193-211. doi:10.1016/j.adolescence.2008.04.005

Wienke Totura, C. M., Karver, M. S., & Gesten, E. L. (2014). Psychological distress and student engagement as mediators of the relationship between peer victimization and achievement in middle school youth. *Journal of Youth and Adolescence, 43,* 40-52. doi:10.1007/s10964-013-9918-4

Whitney, I., & Smith, P. K. (1993). A survey of the nature and extent of bullying in junior/middle and secondary schools. *Educational Research, 35*, 3-25. doi:10.1080/0013188930350101

Wolke, D., Copeland, W. E., Angold, A., & Costello, E. J. (2013). Impact of bullying in childhood on adult health, wealth, crime, and social outcomes. *Psychological Science, 24*, 1958-1970. doi:10.1177/0956797613481608

Wolke, D., & Lereya, S. T. (2014). *Bullying and parasomnias: A longitudinal cohort study. Pediatrics, 134*, e1040-e1048. doi:10.1542/peds.2014-1295

Wolke, D., Lereya, S. T., Fisher, H. L., Lewis, G., & Zammit, S. (2014). Bullying in elementary school and psychotic experiences at 18 years: A longitudinal, population-based cohort study. *Psychological Medicine, 44*, 2199-2211. doi:10.1017/S0033291713002912

Wolke, D., Woods, S., & Samara, M. (2009). Who escapes or remains a victim of bullying in primary school? *British Journal of Developmental Psychology, 27*, 835-851. doi:10.1348/026151008X383003

Wright, J. C., Giammarino, M., & Parad, H. W. (1986). Social status in small groups: Individual-group similarity and the social "misfit". *Journal of Personality and Social Psychology, 50*(3), 523-536.

Wright, M. F. (2016). The roles of bullying involvement and parental warmth in non-suicidal self-harm and suicidal ideation among adolescents from residential program. *Journal of Criminal Psychology, 6,* 202-213. doi:10.1108/JCP-04-2016-0014

Ybarra, M. L., Espelage, D. L., & Mitchell, K. J. (2014). Differentiating youth who are bullied from other victims of peer-aggression: The importance of differential power and repetition. *Journal of Adolescent Health, 55*, 293-300. doi:10.1016/j.jadohealth.2014.02.009

Yeung, R. S., & Leadbeater, B. J. (2007). Does hostile attributional bias for relational provocations mediate the short-term association between relational victimization and aggression in preadolescence? *Journal of Youth and Adolescence, 36,* 973-983. doi:10.1007/s10964-006-9162-2

Zimmer-Gembeck, M. J., Trevaskis, S., Nesdale, D., & Downey, G. A. (2014). Relational victimization, loneliness and depressive symptoms: Indirect associations via self and peer reports of rejection sensitivity. *Journal of Youth and Adolescence, 43*, 568-582. doi:10.1007/s10964-013-9993-6

Zwierzynska, K., Wolke, D., & Lereya, T. S. (2013). Peer victimization in childhood and internalizing problems in adolescence: A prospective longitudinal study. *Journal of Abnormal Child Psychology, 41*, 309-323. doi:10.1007/s10802-012-9678-8

Appendix

Tables

Table 1

Means and SD for Ratings of Peer Victimization by Informant and Time Point

Informant	Time Point	*n*	*M*	*SD*	Range
Self	T1	445	.81	.75	0 – 3.56
	T2	440	.87	.76	0 – 4.00
	T3	445	.93	.79	0 – 4.00
Teacher	T1	428	.65	.65	0 – 3.00
	T2	441	.80	.61	0 – 2.67
	T3	443	.84	.65	0 – 2.67
Peer	T1	444	.16	.10	0 – 0.64
	T2	444	.15	.10	0 – 0.67
	T3	445	.16	.12	0 – 0.81

Table 2

Frequency Distributions of Elevated Victimization Scores by Informant and Time Point

Informant	Time Point	Not Elevated		Elevated	
		n	%	*n*	%
Self	T1	380	85.4	65	14.6
	T2	382	85.8	58	13.0
	T3	373	83.8	72	16.2
Teacher	T1	342	76.9	86	19.3
	T2	382	85.8	59	13.3
	T3	369	82.9	74	16.6
Peer	T1	401	90.1	43	9.7
	T2	404	90.8	40	9.0
	T3	407	91.5	38	8.5

Table 3

Descriptive Summary for T3 Predictors and Parametric Indices (n = 445)

Predictor		*M*	*SD*	Range	Skewness	Kurtosis
T3 Mean						
	Self	.01	1.00	-1.17 – 3.88	0.89	0.26
	Teacher	.01	1.00	-1.27 – 2.79	0.32	-0.57
	Peer	-.05	0.79	-1.12 – 4.42	1.79	5.07
Mean Level						
	Self	-.01	0.85	-1.13 – 3.75	1.04	1.20
	Teacher	-.01	0.85	-1.29 – 3.27	0.57	0.03
	Peer	-.08	0.70	-1.17 – 3.28	1.45	2.70
Stability						
	Self	.44	0.83	0 – 3	1.91	2.68
	Teacher	.49	0.89	0 – 3	1.72	1.75
	Peer	.27	0.71	0 – 3	2.76	6.79
Cross-Informant Agreement						
	T1	.44	0.67	0 – 3	1.43	1.40
	T2	.35	0.63	0 – 3	1.74	2.47
	T3	.41	0.70	0 – 3	1.71	2.47

Table 4

Frequency Distribution for Threshold-Specific Indices (n = 445)

Index			Level	*n*	%
Stability					
	Self	0	None	325	73.0
		1	One Elevation	68	15.3
		2	Repeated	29	6.5
		3	Stable	23	5.2
	Teacher	0	None	319	71.7
		1	One Elevation	61	13.7
		2	Repeated	37	8.3
		3	Stable	28	6.3
	Peer	0	None	376	84.5
		1	One Elevation	34	7.6
		2	Repeated	18	4.0
		3	Stable	17	3.8
Cross-Informant Agreement					
	T1	0	None	293	65.8
		1	One Informant	114	25.6
		2	Two Informants	34	7.6
		3	Three Informants	4	0.9
	T2	0	None	321	72.1
		1	One Informant	94	21.1
		2	Two Informants	27	6.1
		3	Three Informants	3	0.7
	T3	0	None	307	69.0
		1	One Informant	100	22.5
		2	Two Informants	30	6.7
		3	Three Informants	8	1.8

Table 5

Bivariate Correlations among T3 Mean Predictors and Parametric Indices

Predictor		1	2	3	4	5	6	7	8	9	10	11	12
T3 Mean													
1	Self	--											
2	Teacher	.16***	--										
3	Peer	.22***	.45***	--									
Mean Level													
4	Self	.85***	.20***	.24***	--								
5	Teacher	.19***	.84***	.42***	.25***	--							
6	Peer	.17***	.41***	.88***	.22***	.42***	--						
Stability													
7	Self	.71***	.14**	.19***	.84***	.15**	.18***	--					
8	Teacher	.16**	.69***	.42***	.22***	.80***	.40***	.15**	--				
9	Peer	.09	.35***	.72***	.13**	.33***	.80***	.11*	.34***	--			
Cross-Informant Agreement													
10	T1	.34***	.43***	.48***	.49***	.57***	.55***	.50***	.65***	.55***	--		
11	T2	.33***	.45***	.48***	.49***	.55***	.53***	.54***	.64***	.54***	.56***	--	
12	T3	.53***	.58***	.60***	.49***	.49***	.53***	.54***	.61***	.58***	.52***	.57***	--

Note. * $p < .05$ ** $p < .01$ *** $p < .001$

Table 6

Summary of Hierarchical Multiple Regressions for T3 Mean Victimization Variables Predicting Internalizing Outcomes

Model	Predictors	*r*	beta	*t*	95% CI	R^2	Δ R^2	Δ *F*
Step 1						.40	.40	98.09***
	Gender	-.16***	-.14	-3.71***	(-6.11, -1.88)			
	R/Ethnicity	.06	.06	1.57	(-0.22, 1.94)			
	T1 RCADS	.62***	.61	16.54***	(0.57, 0.73)			
T3 Mean Predictors								
Step 2								
Self						.53	.13	120.28***
	Gender		-.13	-4.05***	(-5.74, -1.99)			
	R/Ethnicity		.04	1.07	(-0.44, 1.48)			
	T1 RCADS		.45	12.61***	(0.41, 0.56)			
	T3 Self	.58***	.39	10.97***	(4.66, 6.69)			
Teacher						.41	.01	5.50*
	Gender		-.14	-3.87***	(-6.27, -2.04)			
	R/Ethnicity		.06	1.65	(-0.17, 1.98)			
	T1 RCADS		.61	16.39***	(0.57, 0.72)			
	T3 Teacher	.11**	.09	2.34*	(0.20, 2.32)			
Peer						.41	.01	5.53*
	Gender		-.16	-4.21***	(-6.84, -2.49)			
	R/Ethnicity		.06	1.69	(-0.15, 2.00)			
	T1 RCADS		.60	15.96***	(0.56, 0.71)			
	T3 Peer	.14**	.09	2.35*	(0.27, 3.04)			

Note. Step 1 degrees of freedom = (3, 435); Step 2 degrees of freedom = (1, 434); Durbin-Watson statistic range = 2.02 – 2.03; beta = Standardized coefficient beta; 95% CI = 95% Confidence Interval for *b* (unstandardized coefficient); Δ R^2 = R-square change; Δ *F* = F statistic change; R/Ethnicity = Race/ethnicity. *$p < .05$ **$p < .01$ ***$p < .001$

Table 7

Summary of Hierarchical Multiple Regressions for Mean Level Indices Predicting Internalizing Outcomes

Model	Predictors	*r*	beta	*t*	95% CI	R^2	Δ R^2	Δ *F*
Step 1						.40	.40	98.09***
	Gender	-.16***	-.14	-3.71***	(-6.11, -1.88)			
	R/Ethnicity	.06	.06	1.57	(-0.22, 1.94)			
	T1 RCADS	.62***	.61	16.54***	(0.57, 0.73)			
Mean Level Indices								
Step 2								
Self						.46	.06	44.27***
	Gender		-.16	-4.54***	(-6.71, -2.66)			
	R/Ethnicity		.06	1.69	(-0.15, 1.91)			
	T1 RCADS		.45	10.50***	(0.39, 0.57)			
	Mean Self	.53***	.29	6.65***	(3.42, 6.30)			
Teacher						.41	.01	6.39*
	Gender		-.15	-4.02***	(-6.45, -2.21)			
	R/Ethnicity		.06	1.59	(-0.21, 1.94)			
	T1 RCADS		.60	16.34***	(0.56, 0.72)			
	Mean Teacher	.13**	.09	2.53*	(0.36, 2.84)			
Peer						.41	.00	2.41
	Gender		-.16	-4.02***	(-6.76, -2.33)			
	R/Ethnicity		.06	1.61	(-0.20, 1.96)			
	T1 RCADS		.60	16.11***	(0.56, 0.72)			
	Mean Peer	.10*	.06	1.55	(-0.34, 2.88)			

Note. Step 1 degrees of freedom = (3, 435); Step 2 degrees of freedom = (1, 434); Durbin-Watson statistic range = 2.02 – 2.03; beta = Standardized coefficient beta; 95% CI = 95% Confidence Interval for *b* (unstandardized coefficient); Δ R^2 = R-square change; Δ *F* = F statistic change; R/Ethnicity = Race/ethnicity. *p < .05 **p < .01 ***p < .001

Table 8

Summary of Hierarchical Multiple Regressions for Stability Indices Predicting Internalizing Outcomes

Model	Predictors	*r*	beta	*t*	95% CI	R^2	Δ R^2	Δ *F*
Step 1						.40	.40	98.09***
	Gender	-.16***	-.14	-3.71***	(-6.11, -1.88)			
	R/Ethnicity	.06	.06	1.57	(-0.22, 1.94)			
	T1 RCADS	.62***	.61	16.54***	(0.57, 0.73)			
Stability Indices								
Step 2								
Self						.43	.02	17.50***
	Gender		-.15	-4.15***	(-6.48, -2.31)			
	R/Ethnicity		.07	1.98*	(0.01, 2.13)			
	T1 RCADS		.53	12.88***	(0.48, 0.65)			
	Stability Self	.40***	.17	4.18***	(1.60, 4.43)			
Teacher						.41	.01	4.30*
	Gender		-.15	-3.95***	(-6.39, -2.14)			
	R/Ethnicity		.06	1.65	(-0.17, 1.98)			
	T1 RCADS		.61	16.53***	(0.57, 0.73)			
	Stability Teacher	.07	.08	2.07*	(0.06, 2.42)			
Peer						.41	.00	2.45
	Gender		-.15	-3.96***	(-6.50, -2.19)			
	R/Ethnicity		.06	1.62	(-0.19, 1.97)			
	T1 RCADS		.61	16.28***	(0.57, 0.72)			
	Stability Peer	.09*	.06	1.57	(-0.31, 2.71)			

Note. Step 1 degrees of freedom = (3, 435); Step 2 degrees of freedom = (1, 434); Durbin-Watson statistic range = 2.02 – 2.03; beta = Standardized coefficient beta; 95% CI = 95% Confidence Interval for *b* (unstandardized coefficient); Δ R^2 = R-square change; Δ *F* = F statistic change; R/Ethnicity = Race/ethnicity. *p < .05 **p < .01 ***p < .001

Table 9

Summary of Hierarchical Multiple Regressions for Informant Agreement Indices Predicting Internalizing Outcomes

Model	Predictors	*r*	beta	*t*	95% CI	R^2	ΔR^2	ΔF
Step 1						.40	.40	98.09***
	Gender	-.16***	-.14	-3.71***	(-6.11, -1.88)			
	R/Ethnicity	.06	.06	1.57	(-0.22, 1.94)			
	T1 RCADS	.62***	.61	16.54***	(0.57, 0.73)			
Cross-Informant Agreement Indices								
Step 2								
T1						.41	.00	1.27
	Gender		-.15	-3.87***	(-6.43, -2.10)			
	R/Ethnicity		.06	1.63	(-0.18, 1.98)			
	T1 RCADS		.60	15.49***	(0.56, 0.72)			
	T1 Agreement	.18***	.05	1.13	(-0.71, 2.64)			
T2						.41	.01	3.70^{+}
	Gender		-.15	-3.99***	(-6.48, -2.20)			
	R/Ethnicity		.06	1.71	(-0.14, 2.01)			
	T1 RCADS		.59	15.45***	(0.55, 0.71)			
	T2 Agreement	.20***	.08	1.92^{+}	(-0.04, 3.48)			
T3						.45	.05	38.92***
	Gender		-.16	-4.56***	(-6.78, -2.70)			
	R/Ethnicity		.07	2.03*	(0.03, 2.11)			
	T1 RCADS		.57	15.65***	(0.53, 0.68)			
	T3 Agreement	.32***	.23	6.24***	(3.22, 6.19)			

Note. Step 1 degrees of freedom = (3, 435); Step 2 degrees of freedom = (1, 434); Durbin-Watson statistic range = 2.02 – 2.03; beta = Standardized coefficient beta; 95% CI = 95% Confidence Interval for *b* (unstandardized coefficient); ΔR^2 = R-square change; ΔF = F statistic change; R/Ethnicity = Race/ethnicity. $^{+}$ $p < .06$ *$p < .05$ **$p < .01$ ***$p < .001$

Table 10

Summary of Hierarchical Multiple Regressions with Bivariate, Multivariate, and Moderation Results

Predictor	Bivariate	Multivariate (at Step 2)				Moderation (at Step 3)			
						Gender		R/Ethnicity	
	r	beta	R^2	Δ R^2	Δ *F*	beta	Δ *F*	beta	Δ *F*
T3 Mean									
Self	.58***	.39	.53	.13	120.28***	-.09	4.27*	.01	0.06
Teacher	.11**	.09	.41	.01	5.50*	.03	0.31	.08	1.79
Peer	.14**	.09	.41	.01	5.53*	-.07	1.70	.14	7.70**
Mean Level									
Self	.53***	.29	.46	.06	44.27***	-.08	2.37	.05	0.76
Teacher	.13**	.09	.41	.01	6.39*	.03	0.20	.05	0.64
Peer	.10*	.06	.41	.00	2.41	-.08	1.90	.15	8.11**
Stability									
Self	.40***	.17	.43	.02	17.50***	-.11	3.96*	.00	0.00
Teacher	.07	.08	.41	.01	4.30*	.06	1.01	-.01	0.05
Peer	.09*	.06	.41	.00	2.45	-.04	0.33	.14	6.50*
Cross- Informant Agreement									
T1	.18***	.05	.41	.00	1.27	-.09	1.78	.01	0.01
T2	.20***	.08	.41	.01	3.70^{+}	-.06	0.92	.06	1.18
T3	.32***	.23	.45	.05	38.92***	.02	0.11	.09	2.65

Note. *r* = Correlation coefficient (Pearson's *r*) beta = Standardized coefficient beta; R^2 = R-square; Δ R^2 = R-square change; Δ *F* = F statistic change; R/Ethnicity = Race/ethnicity. $^{+}$ $p < .06$ *$p < .05$ **$p < .01$ ***$p < .001$

Table 11

Summary of Hierarchical Multiple Regressions Testing Moderation of Gender and Race/Ethnicity on Internalizing Outcomes

Model at Step 3	Predictors	*r*	beta	*t*	R^2	ΔR^2	ΔF
T3 Mean							
Self × Gender					.538	.005	4.27*
	Gender		-.13	-4.06***			
	Race/Ethnicity		.03	1.02			
	T1 RCADS		.45	12.60***			
	T3 Self		.46	9.70***			
	T3 Self × Gender	.338***	-.09	-2.07*			
Self × Race/Ethnicity					.533	.000	0.06
	Gender		-.13	-4.04***			
	Race/Ethnicity		.04	1.07			
	T1 RCADS		.45	12.60***			
	T3 Self		.38	7.03***			
	T3 Self × Race/Ethnicity	.459***	.01	.24			
Teacher × Gender					.411	.000	0.31
	Gender		-.14	-3.87***			
	Race/Ethnicity		.06	1.64			
	T1 RCADS		.61	16.39***			
	T3 Teacher		.07	1.24			
	T3 Teacher × Gender	.079+	.03	.56			

Table 11 (Cont.)

Model at Step 3	Predictors	*r*	beta	*t*	R^2	Δ R^2	Δ *F*
T3 Mean							
Teacher × Race/Ethnicity					.413	.002	1.79
	Gender		-.15	-3.89***			
	Race/Ethnicity		.06	1.61			
	T1 RCADS		.61	16.45***			
	T3 Teacher		.03	.53			
	T3 Teacher × Race/Ethnicity	.100*	.08	1.34			
Peer × Gender					.413	.002	1.70
	Gender		-.17	-4.30***			
	Race/Ethnicity		.06	1.72			
	T1 RCADS		.60	15.93***			
	T3 Peer		.15	2.56*			
	T3 Peer × Gender	.072	-.07	-1.31			
Peer × Race/Ethnicity					.421	.010	7.70**
	Gender		-.17	-4.46***			
	Race/Ethnicity		.07	1.84			
	T1 RCADS		.60	16.07***			
	T3 Peer		-.00	-.04			
	T3 Peer × Race/Ethnicity	.159***	.14	2.77**			

Table 11 (Cont.)

Model at Step 3	Predictors	*r*	beta	*t*	R^2	ΔR^2	ΔF
Mean Level							
Self × Gender					.462	.003	2.37
	Gender		-.16	-4.57***			
	Race/Ethnicity		.06	1.62			
	T1 RCADS		.45	10.45***			
	Mean Self		.34	6.13***			
	Mean Self × Gender	.318***	-.08	-1.54			
Self × Race/Ethnicity					.460	.001	0.76
	Gender		-.16	-4.50***			
	Race/Ethnicity		.06	1.70			
	T1 RCADS		.45	10.51***			
	Mean Self		.25	4.28***			
	Mean Self × Race/Ethnicity	.416***	.05	.87			
Teacher × Gender					.412	.000	0.20
	Gender		-.15	-4.00***			
	Race/Ethnicity		.06	1.58			
	T1 RCADS		.61	16.32***			
	Mean Teacher		.08	1.38			
	Mean Teacher × Gender	.085*	.03	.45			

Table 11 (Cont.)

Model at Step 3	Predictors	*r*	beta	*t*	R^2	ΔR^2	ΔF
Mean Level							
Teacher × Race/Ethnicity					.413	.001	0.64
	Gender		-.15	-4.02***			
	Race/Ethnicity		.06	1.60			
	T1 RCADS		.61	16.35***			
	Mean Teacher		.06	.95			
	Mean Teacher × Race/Ethnicity	.097*	.05	.80			
Peer × Gender					.403	.003	1.90
	Gender		-.17	-4.18***			
	Race/Ethnicity		.06	1.66			
	T1 RCADS		.60	16.05***			
	Mean Peer		.12	2.06*			
	Mean Peer × Gender	.044	-.08	-1.38			
Peer × Race/Ethnicity					.418	.011	8.11**
	Gender		-.17	-4.33***			
	Race/Ethnicity		.07	1.90+			
	T1 RCADS		.60	16.25***			
	Mean Peer		-.04	-.75			
	Mean Peer × Race/Ethnicity	.120**	.15	2.85**			

Table 11 (Cont.)

Model at Step 3	Predictors	*r*	beta	*t*	R^2	ΔR^2	ΔF
Stability							
Self × Gender					.432	.005	3.96*
	Gender		-.11	-2.78**			
	Race/Ethnicity		.07	1.88			
	T1 RCADS		.53	12.86***			
	Stability Self		.25	4.44***			
	Stability Self × Gender	.155***	-.11	-1.99*			
Self × Race/Ethnicity					.427	.000	0.00
	Gender		-.15	-4.14			
	Race/Ethnicity		.07	1.73			
	T1 RCADS		.53	12.87			
	Stability Self		.17	3.13			
	Stability Self × Race/Ethnicity	.304***	.00	.02			
Teacher × Gender					.411	.001	1.01
	Gender		-.17	-3.95***			
	Race/Ethnicity		.06	1.66			
	T1 RCADS		.61	16.56***			
	Stability Teacher		.03	.58			
	Stability Teacher × Gender	.009	.06	1.00			

Table 11 (Cont.)

Model at Step 3	Predictors	*r*	beta	*t*	R^2	ΔR^2	ΔF
Stability							
Teacher × Race/Ethnicity					.409	.000	0.05
	Gender		-.15	-3.95***			
	Race/Ethnicity		.07	1.54			
	T1 RCADS		.61	16.49***			
	Stability Teacher		.09	1.51			
	Stability Teacher × Race/Ethnicity	.053	-.01	-.22			
Peer × Gender					.407	.000	0.33
	Gender		-.14	-3.56***			
	Race/Ethnicity		.06	1.65			
	T1 RCADS		.61	16.25***			
	Stability Peer		.09	1.32			
	Stability Peer × Gender	.032	-.04	-.57			
Peer × Race/Ethnicity					.416	.009	6.50*
	Gender		-.16	-4.18***			
	Race/Ethnicity		.02	.59			
	T1 RCADS		.61	16.35***			
	Stability Peer		-.04	-.69			
	Stability Peer × Race/Ethnicity	.138**	.14	2.55*			

Table 11 (Cont.)

Model at Step 3	Predictors	*r*	beta	*t*	R^2	ΔR^2	ΔF
Cross-Informant Agreement							
T1 × Gender					.408	.002	1.78
	Gender		-.12	-2.62**			
	Race/Ethnicity		.06	1.61			
	T1 RCADS		.60	15.42***			
	T1 Agreement		.11	1.75			
	T1 Agreement × Gender	.030	-.09	-1.34			
T1 × Race/Ethnicity					.405	.000	0.01
	Gender		-.15	-3.87***			
	Race/Ethnicity		.06	1.31			
	T1 RCADS		.60	15.47***			
	T1 Agreement		.04	.73			
	T1 Agreement × Race/Ethnicity	.148***	.01	.12			
T2 × Gender					.403	.001	0.92
	Gender		-.13	-3.03**			
	Race/Ethnicity		.06	1.70			
	T1 RCADS		.59	15.38***			
	T2 Agreement		.12	1.98*			
	T2 Agreement × Gender	.051	-.06	-.96			

Table 11 (Cont.)

Model at Step 3	Predictors	*r*	beta	*t*	R^2	Δ R^2	Δ *F*
Cross-Informant Agreement							
T2 × Race/Ethnicity					.410	.002	1.18
	Gender		-.15	-4.00			
	Race/Ethnicity		.04	.94			
	T1 RCADS		.60	15.49			
	T2 Agreement		.03	.62			
	T2 Agreement × Race/Ethnicity	.167***	.06	1.09			
T3 × Gender					.453	.000	0.11
	Gender		-.17	-4.10***			
	Race/Ethnicity		.07	2.02*			
	T1 RCADS		.57	15.62***			
	T3 Agreement		.21	3.87***			
	T3 Agreement × Gender	.143***	.02	.34			
T3 × Race/Ethnicity					.456	.003	2.65
	Gender		-.17	-4.61***			
	Race/Ethnicity		.04	.90			
	T1 RCADS		.57	15.69***			
	T3 Agreement		.17	3.31***			
	T3 Agreement × Race/Ethnicity	.269***	.09	1.63			

Note. beta = Standardized coefficient beta; 95% CI = 95% Confidence Interval for *b* (unstandardized coefficient); Δ R^2 = R-square change; Δ *F* = F statistic change; $^{+}$ $p < .06$ $*p < .05$ $**p < .01$ $***p < .001$

Figures

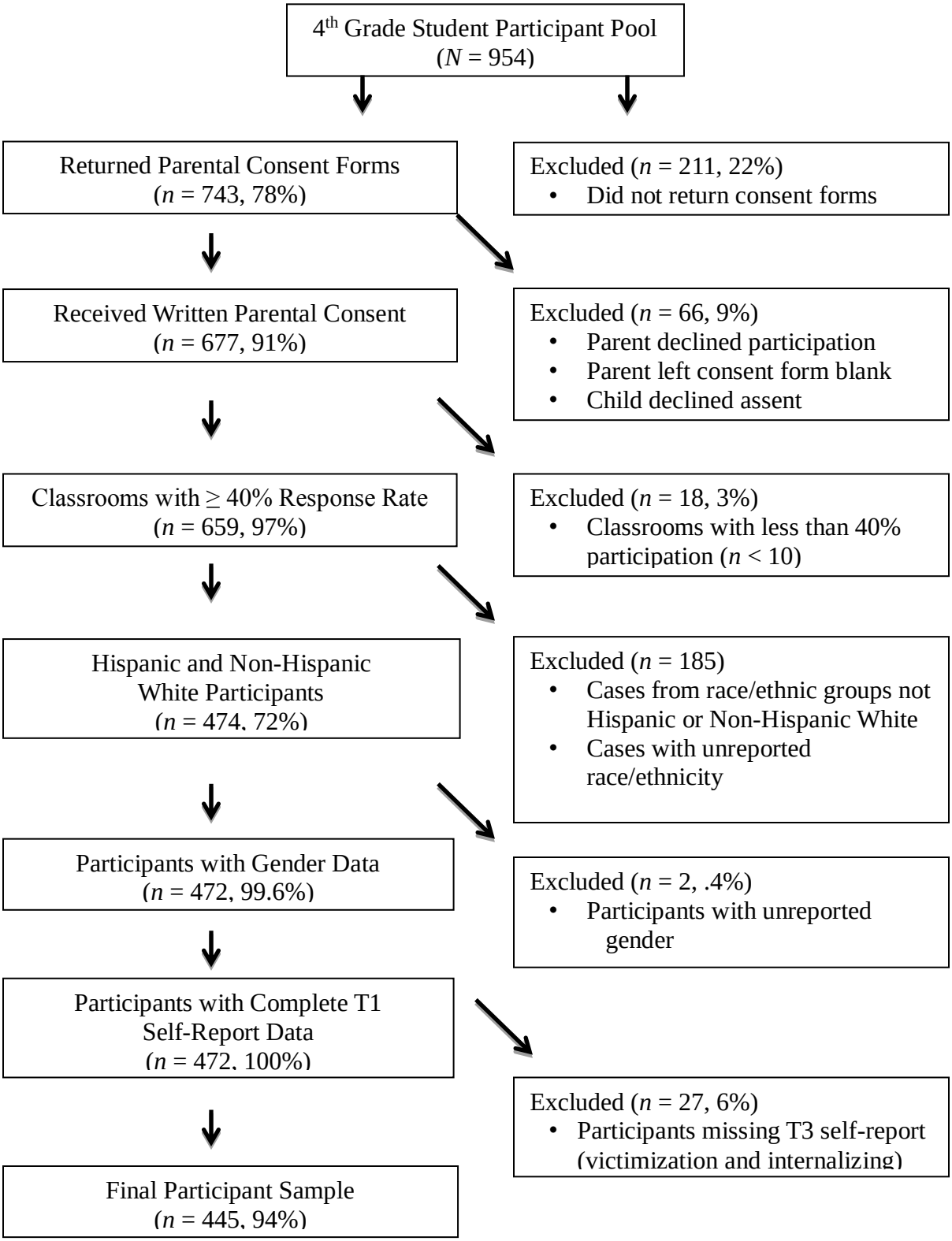


Figure 1. Participant inclusion criteria.

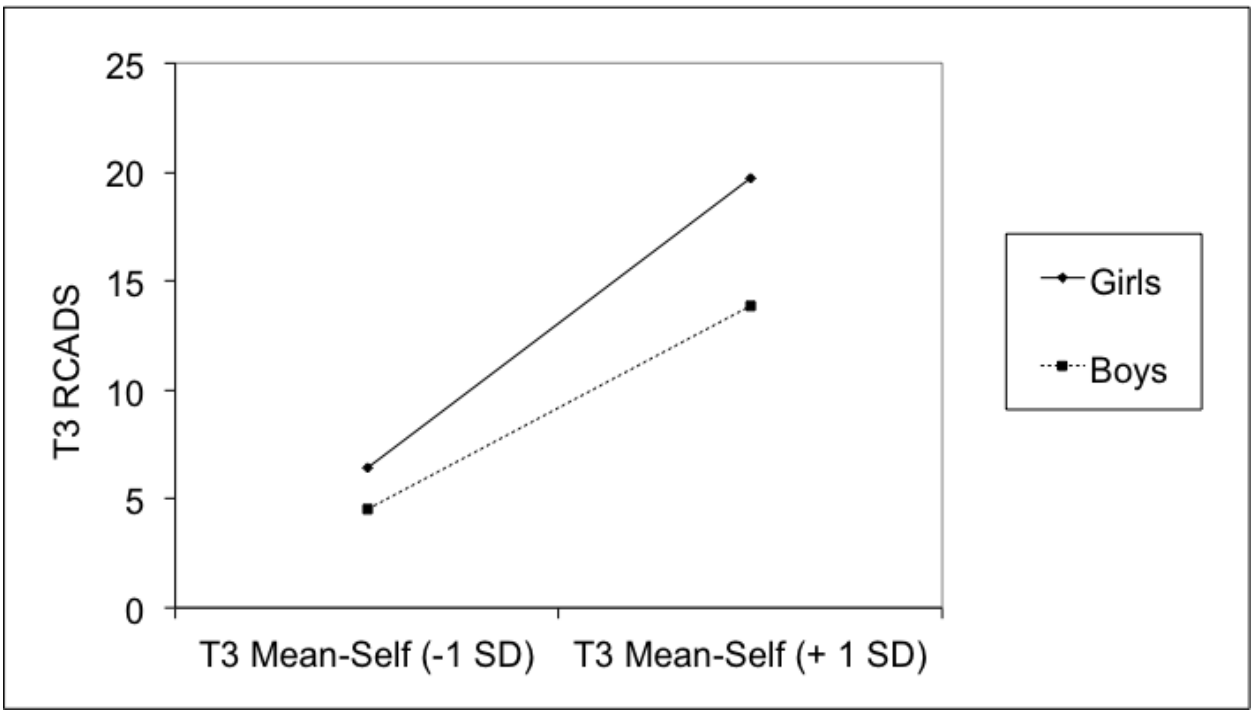


Figure 2. Simple slopes interaction plot: regression lines for relations between *T3 Mean-Self* reported peer victimization and internalizing outcomes (T3 RCADS) as moderated by gender (2-way interaction).

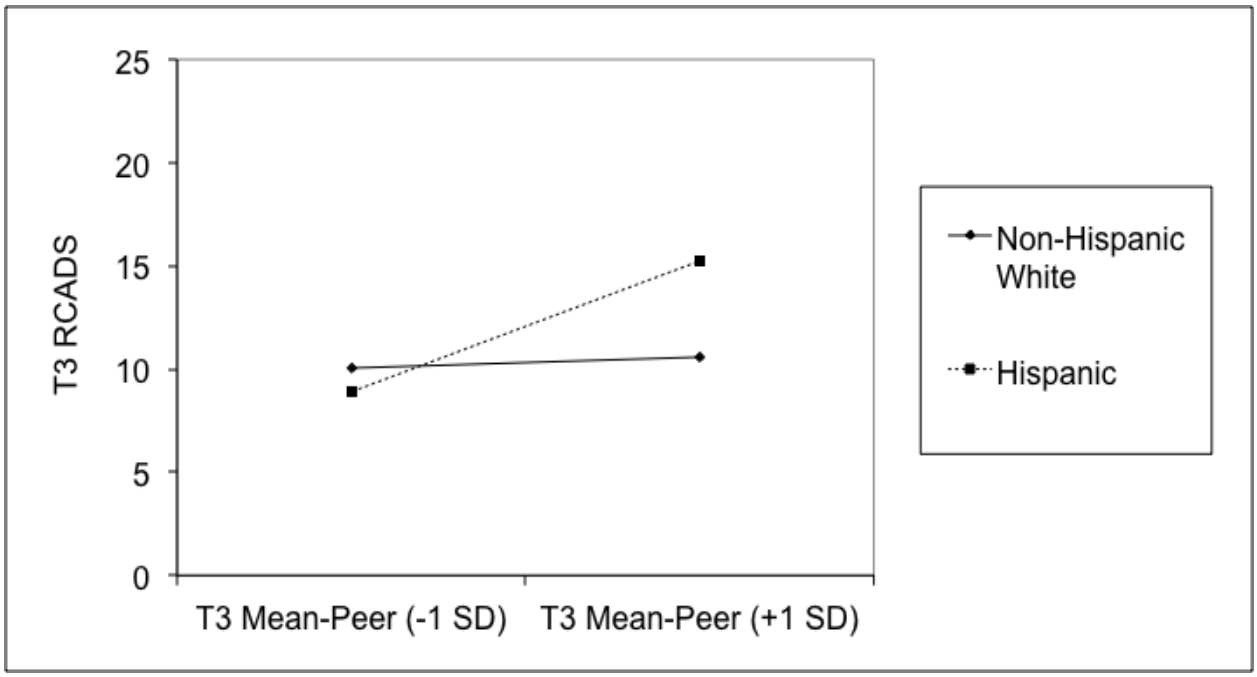


Figure 3. Simple slopes interaction plot: regression lines for relations between *T3 Mean-Peer* reported peer victimization and internalizing outcomes (T3 RCADS) as moderated by race/ethnicity (2-way interaction).

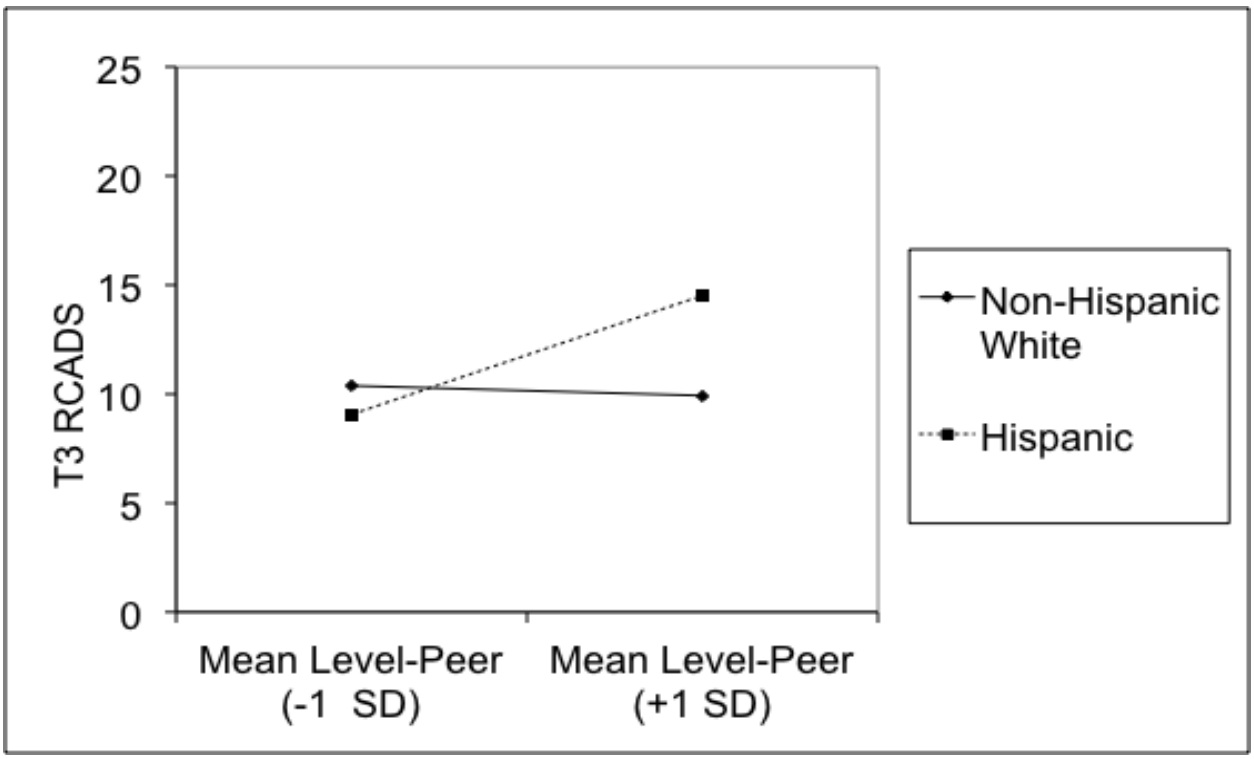


Figure 4. Simple slopes interaction plot: regression lines for relations between *Mean Level-Peer* victimization and internalizing outcomes (T3 RCADS) as moderated by race/ethnicity (2-way interaction).

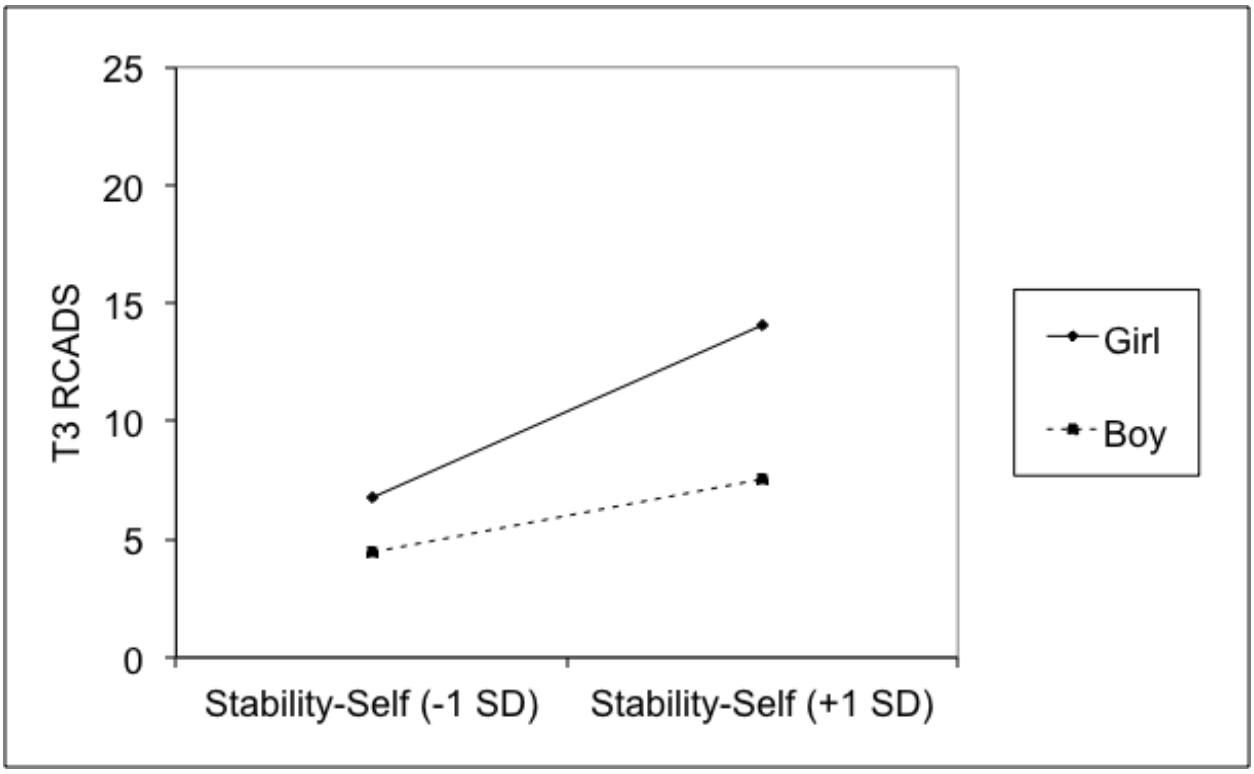


Figure 5. Simple slopes interaction plot: regression lines for relations between *Stability-Self* victimization and internalizing outcomes (T3 RCADS) as moderated by gender (2-way interaction).

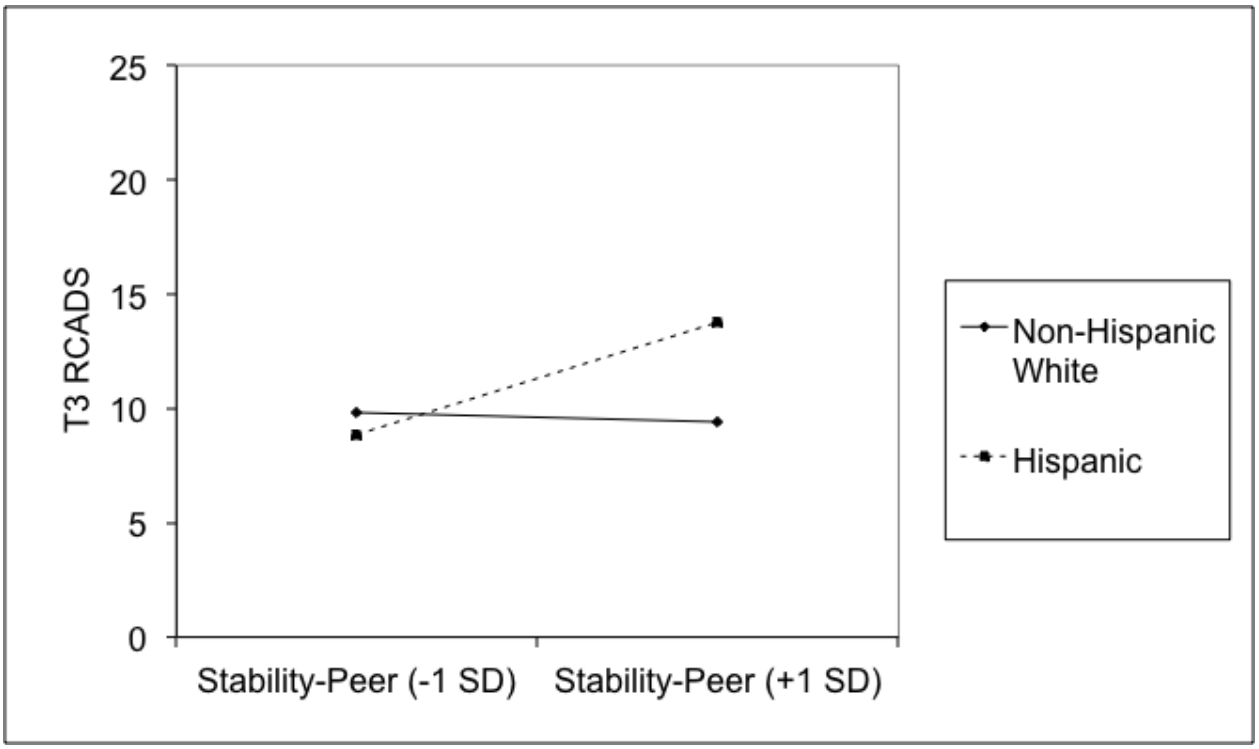


Figure 6. Simple slopes interaction plot: regression lines for relations between *Stability-Self* victimization and internalizing outcomes (T3 RCADS) as moderated by gender (2-way interaction).

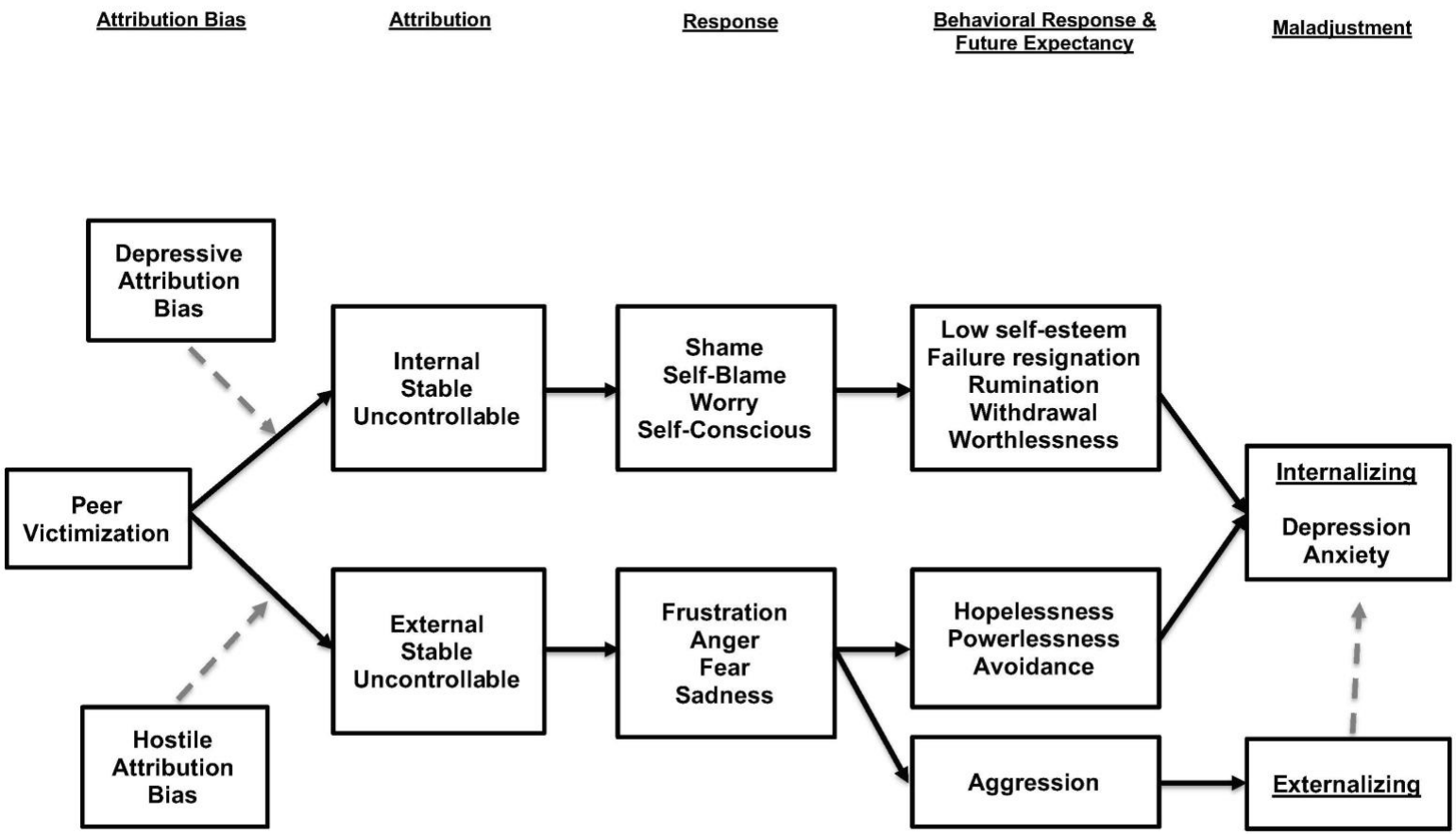


Figure 7. Preliminary model for the possible role of stable peer victimization in the development of maladjustment from the lens of attribution and attributional bias frameworks.

Appendix A

Demographic Sheet

UNIVERSITY OF ARKANSAS

PSP7

Peer Safety Project

Wait!!

The leader will explain how to answer the questions below. If you still need help, please raise your hand.

SCHOOL #: _____ TODAY'S DATE: _____

TEACHER #: _____ YOUR GRADE: _____

STUDY ID #: _____ YOUR AGE: _____

Are you a boy or a girl?

- ☐ **BOY**
- ☐ **GIRL**

What languages are spoken in your home?

- ☐ **ENGLISH**
- ☐ **SPANISH**
- ☐ **MARSHALLESE**
- ☐ **OTHER:_____**

What is your race or culture?

- ☐ **WHITE**
- ☐ **BLACK**
- ☐ **HISPANIC/LATINO**
- ☐ **ASIAN**
- ☐ **AMERICAN INDIAN**
- ☐ **PACIFIC ISLANDER**
- ☐ **BI/MULTI-RACIAL**
- ☐ **OTHER:_____**

Appendix B

The Way Kids Are (School Experiences Questionnaire)

Some questions ask about the kids in your class. Other questions ask about you.

A. How much do kids in your class call you mean names?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
B. How much do kids in your class hit you?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
C. How much do kids in your class like each other as friends?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
D. How much do kids in your class say hurtful things to you?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
E. How much do **YOU** tease other kids, or call them mean names, or say hurtful things to them?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
F. How much do kids in your class say mean things about you or tells lies about you to other kids?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
G. How much do kids in your class kick you?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
H. How much do kids in your class try to help if you are being picked on by other kids?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
I. How much do kids in your class tell you that you CAN'T play with them?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)

Appendix B (Cont.)

J. How much do **YOU** tell other kids they can't play with you, or **YOU** don't invite them to things to get back at them, or **YOU** say mean things or tell lies about them to other kids?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
K. How much do kids in your class get along with each other?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
L. How much do kids in your class tease you at school?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
M. How much do kids in your class NOT invite you to things to get back at you for something?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
N. How much do kids in your class push you?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
O. How much do **YOU** hit, or push, or kick other kids in your class?				
0	1	2	3	4
(Never)		(Sometimes)		(Always)
P. In my class, EVERYBODY is my friend.				
0	1	2	3	4
(Never)		(Sometimes)		(Always)

Appendix C

Teacher's Peer Bullying Scale
(School Experiences Questionnaire – Teacher)

Please answer the following questions on this page about the student whose ID number is: ____.

A. How much is this student hit, pushed, or kicked by other students?				
0 (Never)	1 (Almost Never)	2 (Sometimes)	3 (Almost Always)	4 (Always)
B. How much is this student called mean names, told hurtful things, or teased by other students?				
0 (Never)	1 (Almost Never)	2 (Sometimes)	3 (Almost Always)	4 (Always)
C. How much are these students told they can't play, or they have mean things or lies said about them, or they aren't invited to things just to get back at them?				
0 (Never)	1 (Almost Never)	2 (Sometimes)	3 (Almost Always)	4 (Always)
D. How much does this student bully by hitting other students, by teasing other students, or by telling other students they can't play?				
0 (Never)	1 (Almost Never)	2 (Sometimes)	3 (Almost Always)	4 (Always)

Appendix D

Revised Class Play

- We'd like you to pretend that your class is doing a play and you are the director of that play. It is your job to decide who plays the different parts in the play. Listed below are the descriptions for the different parts of the play.
- Read each one and circle the roster numbers of the 3 students who could play the part best. Because you're the director, you can't pick yourself for any part.
- Yes, you can choose the same student again and again.
- Remember, there is no right or wrong answer, but do keep your answers private.

A. Which kids can play the part of someone who gets along well with the teacher, who likes to talk to the teacher, and who the teacher enjoys spending time with? Circle 3 different numbers.

1	7	13	19
2	8	14	20
3	9	15	21
4	10	16	22
5	11	17	23
6	12	18	24

B. Which kids can play the part of someone who gets teased, called mean names, or told hurtful things by other kids? Circle 3 different numbers.

1	7	13	19
2	8	14	20
3	9	15	21
4	10	16	22
5	11	17	23
6	12	18	24

C. Which kids can play the part of someone who gets pushed, hit, or kicked by other kids? Circle 3 different numbers.

1	7	13	19
2	8	14	20
3	9	15	21
4	10	16	22
5	11	17	23
6	12	18	24

D. Which kids can play the part of someone who is told they can't play with other kids, has mean things and lies said about them, or isn't invited to things just to get back at them? Circle 3 different numbers.

1	7	13	19
2	8	14	20
3	9	15	21
4	10	16	22
5	11	17	23
6	12	18	24

E. Which kids can play the part of someone who hits other kids, teases other kids, or tells other kids they can't play with them? Circle 3 different numbers.

1	7	13	19
2	8	14	20
3	9	15	21
4	10	16	22
5	11	17	23
6	12	18	24

Appendix E

R-CADS

A. I feel sad or empty…			
0	1	2	3
Never	Sometimes	Often	Always
B. I worry when I think I have done poorly at something…			
0	1	2	3
Never	Sometimes	Often	Always
C. Nothing is much fun anymore…			
0	1	2	3
Never	Sometimes	Often	Always
D. I worry I might look foolish…			
0	1	2	3
Never	Sometimes	Often	Always
E. I feel worried when I think someone is angry with me…			
0	1	2	3
Never	Sometimes	Often	Always
F. I am tired a lot . . .			
0	1	2	3
Never	Sometimes	Often	Always
G. I worry about what is going to happen…			
0	1	2	3
Never	Sometimes	Often	Always
H. I have problems with my appetite…			
0	1	2	3
Never	Sometimes	Often	Always
I.I worry that bad things will happen to me…			
0	1	2	3
Never	Sometimes	Often	Always

Appendix E (Cont.)

J. I feel scared when I have to take a test			
0	1	2	3
Never	Sometimes	Often	Always
K. I worry that I will do badly at my school work			
0	1	2	3
Never	Sometimes	Often	Always
L. I cannot think clearly…			
0	1	2	3
Never	Sometimes	Often	Always
M. I worry something bad will happen to me..			
0	1	2	3
Never	Sometimes	Often	Always
N. I feel afraid if I have to talk in front of my class			
0	1	2	3
Never	Sometimes	Often	Always
O. I worry about what other people think of me…			
0	1	2	3
Never	Sometimes	Often	Always
P. I feel like I don't want to move…			
0	1	2	3
Never	Sometimes	Often	Always
Q. I worry about making mistakes…			
0	1	2	3
Never	Sometimes	Often	Always
R. I feel like I will make a fool of myself in front of people…			
0	1	2	3
Never	Sometimes	Often	Always
S. I feel restless…			
0	1	2	3
Never	Sometimes	Often	Always

T. I worry that something awful will happen to someone in my family…			
0	1	2	3
Never	Sometimes	Often	Always
U. I have no energy for things…			
0	1	2	3
Never	Sometimes	Often	Always
V. I worry about making mistakes…			
0	1	2	3
Never	Sometimes	Often	Always
W. I have trouble sleeping…			
0	1	2	3
Never	Sometimes	Often	Always
X. I feel worthless…			
0	1	2	3
Never	Sometimes	Often	Always
Y. I worry about things…			
0	1	2	3
Never	Sometimes	Often	Always

Appendix F

IRB Request

UNIVERSITY OF ARKANSAS

DEPARTMENT OF PSYCHOLOGY
FAYETTEVILLE, ARKANSAS 72701

Timothy A. Cavell, PhD
Professor & Director of Clinical Training
PHONE: (479) 575-4256
FAX: (479) 575-3219
Email: tcavell@uark.edu

September 11, 2012

MEMORANDUM

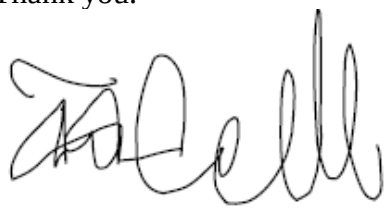
To: IRB
From: Timothy A. Cavell, PhD (PI)
Re: Addendum to Peer Safety Project (PSP) Approval #: 06-11-102

Please be advised that we are requesting an addendum to the above referenced approved study.

Attached is a detailed accounting of the changes we propose, along with supporting (cited) materials.

We will await your response/approval prior to initiating these changes.

Thank you.



Tim Cavell
tcavell@uark.edu
575-5800

Appendix G

Parent Consent

The Peer Safety Project

Timothy A. Cavell, PhD
Professor & Director of Clinical Training
Department of Psychological Science
Phone: (479) 575-5800
Email: tcavell@uark.edu

Parent Consent and Child Assent Form

The Peer Safety Project at the University of Arkansas is a study of school bullying. Children who are bullied at school can feel sad or lonely and find it hard to do their school work or even go to school. This is especially true when children are bullied again and again. Our goal is to learn more about bullying so that we can find ways to help children who are bullied and having problems.

This study is open to all 4th-grade students, and we want to know if your child can be in the study.

Children and teachers participating in this study fill out surveys at school. The survey takes about 1 hour to complete and the survey is given in the fall, in the late fall/early winter, and in the spring. Children are asked questions about bullying and teasing, about getting along with classmates and who they play with, about feeling nervous or sad, and about how to cope with feeling nervous or sad. Teachers are asked about bullying, about what they do if bullying occurs (and do they think that will work), and about how well children are behaving and getting along in their class.

One copy of this parent consent form is for you to keep and one needs to go back to school with your child.

Your child can drop out of the study at any time with no problem and can skip any question that makes your child feel uncomfortable. Also, there are no right or wrong answers to the survey questions. We keep all the survey answers confidential to the extent allowed by law and University policy. We also code the answers with a number and not with your child's name. When we write up the study, we will not identify or name your child. We will only say what we learned from the children as a group. There are no known risks to children who participate in this project.

The University of Arkansas approved this project. If you have ANY questions about the project, please call Dr. Tim Cavell (479/575-5800). You can also call Ro Windwalker (479/575-3845). She is the Compliance Coordinator at the University of Arkansas.

DECISION TO PARTICIPATE IN RESEARCH:

I read this form (or had it read to me), and I understood what it says. I had a chance to ask any questions and my questions were answered to my satisfaction. I talked to my child about this project and what I decided to do.

□ I **AGREE to let my child and his/her teacher fill out the surveys at school.**

OR

□ I **DO NOT AGREE to let my child be in the project**.

_____	_____
(Print your child's name)	(Print the name of your child's teacher)
_____	_____
Signature of parent or guardian (consent) Date	Signature of child (child assent) Date

Appendix H

Teacher Consent

The Peer Safety Project

Timothy A. Cavell, PhD
Professor & Director of Clinical Training
Department of Psychological Science
Phone: (479) 575-5800
Email: tcavell@uark.edu

Teacher Consent Form

The Peer Safety Project at the University of Arkansas focused on the issue of school bullying. Children who are bullied at school are at risk for social, emotional, and academic difficulties, especially if they are chronically bullied. Our goal is to learn more about school bullying so that we can find ways to help those children who are chronically bullied and having problems.

This study is open to all 4th-grade students and teachers, and we want to know if you would like to be in the study.

For this study, you will be asked to complete a survey. One part of the survey is designed to gather teacher information about students, but another part of the survey is designed to gather information about teachers. The survey asks about bullying and teasing among students, about what you would do if bullying occurs (and what you think that will work), and about how well children in your class are behaving and getting along with each other. The survey takes about 30 minutes and it is completed in the fall, in the late fall/early winter, and again in the spring. **Teachers who participate in this study and complete the survey at all 3 time points will receive a $25 gift card.**

One copy of this consent form is for you to keep and one needs to be returned to the UA research team.

You can drop out of the study at any time and can skip any question that makes you feel uncomfortable. Also, there are no right or wrong answers to the survey. We keep all the survey answers confidential to the extent allowed by law and University policy. We also code the answers with a number and not with your name. When we write up the study, we will not identify or name you. We will only say what we learned about children or teachers as a group. There are no known risks to teachers who participate in this project.

The University of Arkansas approved this project. If you have ANY questions about the project, please call Dr. Tim Cavell (479/575-5800). You can also call Ro Windwalker (479/575-3845). She is the Compliance Coordinator at the University of Arkansas.

DECISION TO PARTICIPATE IN RESEARCH:

I read this form and I understood what it says. I had a chance to ask any questions and my questions were answered to my satisfaction.

□□I **AGREE to participate in the project.**
□□I **DO NOT AGREE to be in the project**.

_____ _____
(Print your child's name) Print the name of your child's teacher)

_____ _____
Signature of parent or guardian (consent) Date Signature of child (child assent) Date

Appendix I

IRB Approval

UNIVERSITY OF ARKANSAS

Office of Research Compliance
Institutional Review Board

September 17, 2012

MEMORANDUM

TO: Timothy Cavell
Melissa Faith
Debbie Gomez
James Thomas
Samantha Gregus
Freddie Pastrana

FROM: Ro Windwalker
IRB Coordinator

RE: PROJECT MODIFICATION

IRB Protocol #: 06-11-102

Protocol Title: *Peer Safety Project (PSP)*

Review Type: ☐ EXEMPT ☒ EXPEDITED ☐ FULL IRB

Approved Project Period: Start Date: 09/14/2012 Expiration Date: 12/04/2012

Your request to modify the referenced protocol has been approved by the IRB. **This protocol is currently approved for 1,480 total participants.** If you wish to make any further modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

Please note that this approval does not extend the Approved Project Period. Should you wish to extend your project beyond the current expiration date, you must submit a request for continuation using the UAF IRB form "Continuing Review for IRB Approved Projects." The request should be sent to the IRB Coordinator, 210 Administration.

For protocols requiring FULL IRB review, please submit your request at least one month prior to the current expiration date. (High-risk protocols may require even more time for approval.) For protocols requiring an EXPEDITED or EXEMPT review, submit your request at least two weeks prior to the current expiration date. Failure to obtain approval for a continuation *on or prior to* the currently approved expiration date will result in termination of the protocol and you will be required to submit a new protocol to the IRB before continuing the project. Data collected past the protocol expiration date may need to be eliminated from the dataset should you wish to publish. Only data collected under a currently approved protocol can be certified by the IRB for any purpose.

If you have questions or need any assistance from the IRB, please contact me at 210 Administration Building, 5-2208, or irb@uark.edu.

210 Administration Building • 1 University of Arkansas • Fayetteville, AR 72701

Voice (479) 575-2208 • Fax (479) 575-3846 • Email irb@uark.edu

The University of Arkan