Long-Term Adult Outcomes of Peer Victimization in Childhood and Adolescence

Pathways to Adjustment and Maladjustment

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The study of peer victimization has drawn together researchers, parents, teachers, and health professionals around the world in an effort to make change. Research attention has focused on the question of whether peer victimization in childhood and adolescence leads to lasting and serious negative ramifications in the lives of young people. We consider the wealth of information documenting the troubling adjustment that follows peer victimization within childhood and adolescence. Findings from prospective studies tracking children and adolescents into young adulthood are presented and synthesized. Using the construct of "multifinality" as our framework, we explore why it might be that early peer victimization does not have the same impact on all young people by considering factors that place individuals at greater risk or appear to protect them from more lasting harm. In addition to a need for carefully planned prospective studies, the field would benefit from the use of qualitative studies aimed at elucidating possible causal, concurrent, and resultant mechanisms involved with victimization.

Keywords: victimization, bullying, adjustment outcomes, long term, peers

Few topics in developmental and educational psychology have united researchers, parents, teachers, and health professionals in such a profound way than the study of peer victimization. The driving force is the underlying belief that peer victimization is an extremely difficult life experience with lasting and serious negative ramifications in the lives of young people, and as such should be stopped (or at least reduced) through intervention and prevention efforts. This belief has been transmitted from research journals and books into the world at large through the popular media, with headlines conveying a powerful and ominous message.

Within the research literature, there are three key premises: (a) victimization experiences are prevalent, (b) victimization is linked to a host of negative adjustment indices, and (c) the consequences of victimization are long-lasting. Considerable evidence supports each of these premises *within* the developmental period of childhood and adolescence. What remains less clear is whether the consequences of peer victimization are in fact *long term*, extending beyond childhood and adolescence and into adulthood. We know that not every bullied child becomes a victimized adult, and not every individual who is victimized in school continues to experience maladaptive adjustment in adulthood. Borrowing from general systems theory (von Bertalanffy, 1968), we argue that the impact of peer victimization is best viewed within a "multifinality" framework. Starting out on the same trajectory (i.e., victim of peer abuse) does not necessarily mean individuals will end up with the same outcome (Cicchetti & Rogosch, 1996). Rather, there are multiple pathways leading to both adaptive and maladaptive end points, and the impact of a difficult childhood experience on adult adjustment will vary within the "system" alongside other conditions and attributes. This multifinality framework is useful in understanding how the processes and long-term power of childhood victimization can be diverse.

Linking Peer Victimization to Adjustment in Childhood and Adolescence

Research published on peer victimization has exploded in the last three decades. Although concurrent correlates are useful in setting the stage, greater weight is placed on findings obtained from longitudinal designs because they allow us evaluate the plausibility of causal links. In order to describe how earlier or sustained victimization links to outcomes over time and at varying points of development, our review of this literature is categorized into (a) *academic functioning*, (b) *physical health and neurobiology*, (c) *social relationships*, (d) *self-perceptions*, (e) *mental health (internalizing disorders)*, and (f) *mental health (externalizing disorders)*.

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Academic Functioning

The longitudinal links between victimization and academic outcomes are complex and not always direct for achievement (Beran, 2008). Whether it is across the kindergarten year or further into the early grades, children who are chronically victimized through the first years of elementary school are less happy in school (Arseneault et al., 2006), and understandably, avoid school (Buhs, Ladd, & Herald, 2006; Kochenderfer & Ladd, 1996). The extent to which these early experiences play out negatively with regard to academic achievement is not well established (Kochenderfer & Ladd, 1996). As the elementary school years unfold, peer victimization in Grades 3 and 4 has been tied to lower academic achievement a year later (Schwartz, Gorman, Nakamoto, & Toblin, 2005). In the intermediate years, the impact of sustained victimization shows up in poor academic performance (e.g., grade point average, teacher reports, national tests), challenges in school adjustment (e.g., not following rules), negative views about school climate (e.g., lack of teacher support), and heightened perceptions of being at risk in school (Esbensen & Carson, 2009; Juvonen, Wang, & Espinoza, 2011; Nansel, Haynie, & Simons-Morton, 2007; Rothon, Head, Klineberg, & Stansfeld, 2011). Moving into early high school, the reality of school as an aversive place is well-established, with stably victimized students (compared with nonvictims) reporting lower school attendance after 2 years (Smith, Talamelli, Cowie, Naylor, & Chauhan, 2004). Although not specifically about victimization, high school girls who perceive themselves to be socially marginalized get on a path to poor academic progress and then become less likely to attend college (Crosnoe, 2011). Given complexity of ties in the long-term impact of victimization on academic success or performance, this is an important focus for future research.

Physical Health and Neurobiology

Longitudinal work on victimization and physical health is limited. Students experiencing victimization in later childhood are at increased risk of elevated somatic complaints (e.g., poor appetite) from the beginning to end of the school year (Fekkes, Pijpers, Fredriks, Vogels, & Verloove-Vanhorick, 2006), and after 1 full year (Goldbaum, Craig, Pepler, & Connolly, 2007), with poorer reports of physical life quality up to 5 years later in high school (Bogart et al., 2014). Being victimized in early adolescence is connected to general health 3 years later after controlling for earlier health (Rigby, 1999). In a systematic review and meta-analysis, Gini, Pozzoli, Lenzi, and Vieno (2014) identified three longitudinal studies from the larger pool, with support for a heightened risk of headaches experienced by children and early adolescents up to 7 years later.

Neurobiological research is newest in this area, centering initially on correlates of peer victimization. Connections between exposure to peer abuse and dysregulation of the body's stress response system (e.g., hypothalamic pituitary adrenal axis) has been of interest focusing on the release of cortisol, which *typically* increases when a person is exposed to a stressor, although decreases are also as problematic (Miller, Chen, & Zhou, 2007). Peer victimization has been linked to *lower* levels of both diurnal and reactive cortisol (e.g., Kliewer, 2006; Vaillancourt et al., 2008), a pattern of hyposecretion typically found in those exposed to extreme violence (Vaillancourt, Hymel, & McDougall, 2013). Emerging longitudinal work shows that victimization in early adolescence predicts elevated depression symptoms over time, which subsequently predicts blunted cortisol (Vaillancourt et al., 2011). Others have shown that a blunted cortisol response seems to place children who are bullied at greater risk for increased mental health problems (Ouellet-Morin et al., 2011a; von Klitzing et al., 2012).

In a study of early adolescent monozygotic twins who were discordant on peer victimization, Ouellet-Morin et al. (2011b) found that victimization directly led to changes in the neuroendocrine response to stress. Shalev et al. (2012) reported that exposure to violence in childhood, including bullying, was associated with telomere erosion (a biomarker of stress) from the ages of 5 to 10 years. These studies suggest that peer victimization "gets under the skin" and that exposure to peer abuse affects the developing stress response, which may place a child at greater risk for poorer health and learning outcomes (see Vaillancourt, Hymel, et al., 2013). There is evidence that people relive and re-experience social pain (e.g., humiliation) more easily than physical pain (e.g., injury) and the emotions they feel are more intense and painful than those tied to physical pain (e.g., Chen, Williams, Fitness, & Newton, 2008). Neuroimaging studies show social pain and physical pain share a common neurological network, highlighting why it may be that physical pain is often short lived whereas social pain, for some, seems to last a lifetime (see Vaillancourt, Hymel, & McDougall, 2010 for review).

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Social Relationships

For younger children, early victimization is modestly predictive of decreases in popularity (i.e., liking) over a 2-year period, even if levels of early popularity are controlled (Hanish & Guerra, 2002). Moving into the middle years of elementary school, increases in victimization over a period of 1 year have been tied to feeling increasingly unpopular, but only among girls, not boys (Khatri, Kupersmidt, & Patterson, 2000). From middle childhood into early adolescence, higher levels of victimization have been linked to small to moderate increases in peer rejection (Hodges & Perry, 1999), and to peer dislike (Scholte, Engels, Overbeek, de Kemp, & Haselager, 2007). In early and middle adolescence, the sustained experience of victimization predicted relationship problems (e.g., Kumpulainen & Räsänen, 2000; Smith et al., 2004), and fewer friends or the loss of friends in school (but not outside of school; Smith et al., 2004). We turn later to consideration of the intervening role that social relationships play in adjustment.

Self-Perceptions

There is considerable interest in how peer victimization impacts children's feelings about their self-worth, with a fundamental concern that children will come to believe somehow that they deserve the abuse. Seeing oneself as a victim and self-blaming attributions place students at significant risk (Graham & Juvonen, 1998). Over time, victimization in middle to late elementary and junior high school predicts lower (or declining) self-reported social competence, as well as global and social self-worth over periods of 6 months to 2 years (Bellmore & Cillessen, 2006; Boulton, Smith, & Cowie, 2010; Goldbaum et al., 2007), but in at least one study, this was only true for boys (Troop-Gordon & Ladd, 2005). Similar difficulties have been seen in early and later adolescence, in which victimization has been tied to lower and decreasing self-esteem (Esbensen & Carson, 2009; Overbeek, Zeevalkink, Vermulst, & Scholte, 2010), and poor social self-efficacy (Paul & Cillessen, 2007) up to several years later.

Mental Health (Internalizing Disorders)

The largest area of longitudinal research on victimization is the study of how peer abuse links to mental health. Across the elementary school years, early victimization has been repeatedly tied to internalizing problems in subsequent years (Arseneault et al., 2006; Goodman, Stormshak, & Dishion, 2001; Hodges, Boivin, Vitaro, & Bukowski, 1999; Hodges & Perry, 1999; Troop-Gordon & Ladd, 2005). Indeed, a meta-analysis of longitudinal studies with children and adolescents consistently showed small to moderate effects in connecting victimization to internalizing outcomes (Reijntjes, Kamphuis, Prinzie, & Telch, 2010), commonly including depression and anxiety.

Under the broader umbrella of mental health and internalizing difficulties rests specific subdomains like loneliness, withdrawal, emotional problems, somatization, anxiety, and depression. From the earliest years to the end of elementary school, peer victimization is predictive of greater feelings of loneliness (Juvonen, Nishina, & Graham, 2000; Kochenderfer & Ladd, 1996) and greater negative affect (e.g., anger, fear; Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004) across years. In early adolescence, anxiety and withdrawal (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Goldbaum et al., 2007) have also been associated with stable victimization across 1 year, with emotion dysregulation evident over even longer periods of assessment (McLaughlin, Hatzenbuehler, & Hilt, 2009). Among adolescents, a history of peer victimization is linked with increased emotional psychiatric distress for girls (Rigby, 1999), greater emotional symptoms and problems (Yeung & Leadbeater, 2010; Zwierzynska, Wolke, & Lereya, 2013), and increased risk of psychotic experiences (e.g., paranoia; De Loore et al., 2007).

The incidence of depression among victimized youth has received heightened attention. A number of studies have linked sustained peer victimization with later depression in both younger children (Averdijk, Eisner, & Ribeaud, 2014; Hanish & Guerra, 2002; Schwartz et al., 2005; Snyder et al., 2003), and early and later adolescents (Kumpulainen & Räsänen, 2000; Sweeting, Young, West, & Der, 2006; Zwierzynska et al., 2013), although in some studies this connection was observed strictly for early adolescent boys (Rothon et al., 2011) or adolescent girls (Bond et al., 2001; Patton et al., 2008; Paul & Cillessen, 2007). Ttofi, Farrington, Lösel, and Loeber (2011) presented evidence from a systematic review and meta-analysis of 29 studies supporting a consistent link between victimization and depression from Ages 8 to 16 over widely varying time periods. Notably, the tie between victimization and later depression was smaller for older participants and decreased as the length of time between measurements increased.

Mental Health (Externalizing Disorders)

In a meta-analysis of 10 longitudinal studies, Reijntjes et al. (2011) documented that peer victimization predicted increasing difficulties of an externalizing nature (e.g., aggression, delinquency, misconduct, and attention problems) with modest effect sizes. These conclusions were based on samples ranging in age from early childhood (Age 5) to early adolescence (Age 13), followed for periods up to 2 years, and only included studies in which earlier functioning was controlled to ensure a more stringent test.

Young people who were repeatedly victimized over periods of years in childhood or at the early to middle adolescent stage were at greater risk for conduct problems (Smith et al., 2004), turned to bullying themselves (Barker, Arseneault, Brendgen, Fontaine, & Maughan, 2008; Haltigan & Vaillancourt, 2014), and showed an increased likelihood of harming themselves physically (Fisher et al., 2012; Lereya et al., 2013). Among high school students, Yeung and Leadbeater (2010) noted that both physical and relational victimization early on (Ages 12 to 19) predicted subsequent behavior problems 2 years later. In their review, Klomek, Sourander, and Gould (2010) documented that across elementary and high school, victims of peer abuse are at risk for suicidal ideation and attempted suicide.

Summary

Based on current research, peer victimization clearly impacts the lives of boys and girls. An impressive body of work exists with the analytic strategy of correlating Time 1 victimization with Time 2 adjustment giving way to stronger tests of the "consequence" hypothesis. These stronger tests involve studies that control Time 1 (early) adjustment (e.g., Averdijk et al., 2014) and sometimes Time 2 (concurrent) victimization (e.g., Dill et al., 2004) when predicting adjustment at Time 2. These designs allow researchers to evaluate how *change* in victimization over time can predict *change* in adjustment, and to test complex models involving direct and indirect pathways. Controlling for early symptoms allows researchers to rule out the possibility that stability in mental health symptoms rather than the experience of victimization leads to patterns of maladjustment (Haltigan & Vaillancourt, 2014). Still more complicated statistical techniques allow us to study the effects of stability in victimization by creating "trajectories" of children following different pathways (e.g., Boivin, Petitclerc, Feng, & Barker, 2010; Haltigan & Vaillancourt, 2014) and using longitudinal modeling techniques to test theoretical models of how the effects of victimization play out over time (e.g., Troop-Gordon & Ladd, 2005; Vaillancourt, Brittain, McDougall, & Duku, 2013). Finally, meta-analyses contribute to the systematic nature of conclusions by documenting replication and effect sizes across studies.

Aggregating across areas of adjustment, the bulk of research reviewed concentrates on middle to late childhood and early adolescence (roughly Age 8 to Age 14). Through this period, we see evidence of longitudinal connections between peer victimization and poor adjustment in academic, social, self, physical, internalizing, and externalizing domains. It may be that this developmental period has received considerable attention because victimization during this phase tends to occur at higher levels and is less stable (e.g., Arseneault et al., 2006), with a greater impact on students compared with later in high school (Rigby, 1999). Of interest, however, is the question of whether different outcomes might be more strongly tied to the experience of peer victimization as a function of the developmental period in which the victimization occurs. Beyond the meta-analytic findings (Ttofi et al., 2011) showing that the strength of connection between victimization and depression gets weaker at older ages, we are aware of only a single study that provides direct information on developmental stage. Boivin et al. (2010) observed that the association between peer victimization and aggression became smaller over middle to late childhood and early adolescence. Conversely, the size of the association between victimization and social withdrawal increased slightly in middle childhood, then appeared to level off. These findings introduce the possibility that certain outcomes are tied more or less strongly to victimization at different points in development. The idea that adjustment is sensitive to timing requires more extensive examination across domains of adjustment.

Whereas numerous markers of maladjustment link to peer victimization, it is certainly true that published studies exist wherein no such negative outcomes or differences between victimized and nonvictimized students are observed. Similarly, questions around gender differences in (mal)adjustment remain open. Although some studies find that victimization experiences of boys and girls tie to different outcomes (e.g., boys struggling with self-perceptions, girls showing difficulty with anxiety and depression), a significant number of studies report patterns of adjustment that are the same across gender. Variability in findings should not be surprising given that researchers are using samples of different ages, with different reporters (i.e., self, peer, parent, teacher), providing varied measures of victimization (e.g., continuous, categorical) over a range of time spans. Despite compelling evidence documenting maladjustment in childhood and adolescence, questions remain regarding whether the effects of victimization are contained within the school years or follow children into adulthood.

Prospective Studies Following Children Forward Into Adulthood

The "gold standard" for developmental research is the prospective design in which researchers examine whether painful childhood experiences leave lasting scars in adulthood. This section provides an overview of all of the published prospective work that could be identified to date and included 17 studies using 11 data sources (eight of which were population-based cohort projects). Studies were included when a clearly defined measure of victimization was obtained in childhood and/or adolescence and when outcomes were measured outside the school age in late adolescence and beyond. Emerging primarily in the

last 5 years, studies have appeared with starting points from Ages 8 to 15 using multi-informant reports, with outcomes covering physical health, wellness, social relationships, externalized behavior, and internalizing problems.

Victimization in elementary school predicts heavy smoking for late adolescent men (Niemelä et al., 2011), and a greater risk of somatization difficulties for young adult women (McGee et al., 2011). Childhood victimization, particularly frequent victimization, can be tied to problematic social relationships (e.g., poor quality, violent, not living with partner), and poor educational and financial achievement in young adulthood (Wolke, Copeland, Angold, & Costello, 2013), and decades later in midlife (Takizawa, Maughan, & Arseneault, 2014).

Men who were victimized by peers in childhood display problems with aggression (McGee et al., 2011) and have a greater likelihood of having committed a crime up to a decade later (Gibb, Horwood, & Fergusson, 2011; Sourander, Jensen, Rönning, Elonheimo, et al., 2007). Yet others have demonstrated that victims had less involvement with criminal offenses as adults (Bijleveld, Van der Geest, & Hendriks, 2011; Olweus, 1993), or have shown that the link between early victimization and crime (e.g., violent, property) is not there for women and disappears for men when early psychopathology is controlled for (Sourander et al., 2011).

Much of the long-term prospective work has focused on mental health. In a classic study, boys who were victimized in Grades 6 and 9 later reported greater depression and more negative self-esteem when they reached their early 20s (Olweus, 1993). Vassallo, Edwards, Renda and Olsson (2014) replicated this finding with a link between early adolescent victimization and an increased likelihood of depression in young adults. Others have failed to find a long-term tie to depression many years after the victimization (Gibb et al., 2011), and at least one study has reported that this tie to young adulthood disappears when earlier depressive symptoms are controlled (Desjardins & Leadbeater, 2011). There is compelling evidence of anxiety as an outcome of victimization, impacting young adults (Copeland, Wolke, Angold, & Costello, 2013; Gibb et al., 2011; Stapinski et al., 2014). Consistent with media reports, childhood peer victimization has been tied to greater risk for suicidal behavior (attempts and completions), yet this link disappears for men after considering earlier challenges like conduct problems and depression (Klomek et al., 2009).

Findings from a large-scale cohort study showed that victimized boys had a much greater likelihood of psychiatric disorder as adults (Sourander, Jensen, Rönning, Niemelä, et al., 2007). Evidence from a second Finnish cohort study (Sourander et al., 2009) showed that boys victimized in middle childhood were at greater risk for psychiatric hospitalization years later, although this connection did not hold after controlling for early psychopathology. In contrast, girls who were frequently victimized in elementary school were more likely to be hospitalized and more likely to receive psychopharmacological treatment many years later (controlling for early psychopathology). Still other data show that the risk of psychotic experience in later adolescence can be predicted from peer victimization in elementary school (Wolke, Lereya, Fisher, Lewis, & Zammit, 2014; after factoring out early psychological functioning).

Summarizing across prospective studies, there is evidence of a *direct* path between childhood peer victimization and poor long-term outcomes in adulthood. Two thirds of these prospective studies include some index of internalizing mental health adjustment that extends into late adolescence and early to mid-twenties, with one study ranging into mid-life. The links drawn between early victimization and later problems with internalizing issues consistently involve the inclusion of control variables to reduce the likelihood that patterns of association after many years are attributable to confounding factors rather than experiences of victimization. When it comes to internalizing outcomes, the controls used often include earlier psychological functioning such as emotional and behavioral symptoms but have also included a host of items such as family factors and individual characteristics. If we give more weight to studies that directly control for earlier levels of related symptoms, the evidence for anxiety, somatization, and psychotic experience in adulthood continues to be strong. Just over one third of the prospective work focuses attention on mapping victimization onto outward behavior in adulthood, with similarly strong controls in place and alarming outcomes more commonly observed for men (with the exception of suicide). Again, however, when we place greater emphasis on studies that control related symptoms and behavior in childhood, the strongest evidence emerges for suicide for men and women, as well as aggression and heavy smoking behavior for men. It is important to note that in a number of cases, controlling for earlier adjustment negates the association between peer victimization and adjustment in adulthood.

There is also ample evidence for *indirect* pathways—pathways that include mechanisms and that are best understood by examining the seemingly lethal aggregate of childhood victimization in combination with early emotional-behavioral difficulties and negative beliefs about the self. For example, Olweus (1993) demonstrated a mediational model in that early victimization (Ages 13 to 16) was connected to concurrent perceptions that the self is inadequate ("depressive tendencies"), and these self-evaluations, in turn, predicted greater depression later on. Similarly, Wolke et al. (2014) tracked an indirect path from childhood victimization to psychotic experience and depressive symptoms in early adolescence, reaching to psychotic experience for young adults. Finally, in some of the Finnish work, rather than a solitary marker, early peer victimization *in combination with* early psychiatric difficulties best predicted whether boys later struggled with psychiatric problems (Sourander, Jensen, Rönning, Niemelä, et al., 2007) or criminality in early adulthood (Sourander, Jensen, Rönning, Elonheimo, et al., 2007).

The prospective literature is limited to the young adult age group, pointing to uncertainty about later life (see Takizawa et al., 2014, for an exception). Caution is pru-

dent, given the likelihood that empirical observations of no connection between early victimization and long-term adjustment problems are challenging to publish, and thus remain underreported. In cases in which we see long-term research in which early peer victimization *does not* link to measured outcomes (or links to some outcomes and not others), we begin to think that there are signs of resilience or recovery and, for at least some young people, the effects of these very deleterious childhood experiences may be situational and temporary. Finding that the effects of victimization are indirect and affected by a combination of factors that place young people at risk, provides support for multiple pathways from early victimization to adult functioning. These concepts of recovery and pathways lead directly to consideration of mediators and moderators.

Mediators and Moderators: What Contributes to Defining Pathways?

In order to comprehend the heterogeneity of victimization outcomes (Hanish & Guerra, 2002), or continuous and discontinuous pathways (Juvonen et al., 2000), we look at risk and protective factors that moderate and/or mediate to explain why it is that the experience of victimization in childhood may link to different outcomes over longer periods of time.

Using a systematic review of a small set of prospective longitudinal studies with a focus on internalizing and externalizing adjustment, Ttofi, Bowes, Farrington, and Losel (2014) identified (a) individual factors such as social skills and academic strength, (b) family factors such as stability in structure and positive relationships, and (c) social support via friendships as representing risk-based protective factors suggestive of resilience. Ttofi et al. saw these as protective factors that appeared to "interrupt" the maladjustment pathway between risk tied to victimization in the school years and later difficulty. There are additional constructs worthy of examination including both contextual and individual elements. The review that follows is intended to illustrate a range of possible intervening factors. For the purposes of elucidation, this section includes both cross-sectional and longitudinal studies.

Classroom Context

Adjustment tied to victimization appears to depend on the classroom context to the extent that connections to negative outcomes are stronger in classrooms in which victimization emerges as central (i.e., few victims in the class who are seen by others as "social misfits"; Huitsing, Veenstra, Sainio, & Salmivalli, 2012). In elementary school, victims appear better adjusted in classrooms with high levels of victimization because they find themselves in a "shared plight" situation, where it is easier for victims to make an external attribution and see that the experience is not their fault. This same logic can be used to understand how ethnicity, particularly ethnic composition of the classroom, matters. With early adolescents, Bellmore, Witkow, Graham, and Juvonen (2004) found that being a victim in a classroom composed of many same-ethnic peers tied to greater loneliness and social anxiety 1 year later. Similarly, Bellmore and colleagues observed stronger connections between victimization and subsequent social anxiety in classrooms characterized as orderly (e.g., lower aggression) versus disorderly. Bellmore et al. posited that the experience of victimization when one's ethnic group holds the "balance of power" through numbers or in an orderly classroom represents deviation from the norm that focuses attention on self-blame and reduces the ease of making external attributions.

A Biological "Profile"

At the level of individual neurobiology there is evidence to support a "risk" biological profile that interacts with a toxic environment and leads to poorer outcomes. For example, Caspi et al. (2003) showed that the link between childhood maltreatment and depression in adulthood was moderated by the polymorphism in the promoter region of the serotonin transporter gene (5-HTTLPR). Specifically, maltreated individuals *with* two copies of the short allele at the 5-HTTLPR locus were far more likely to be diagnosed as depressed in adulthood than those with a similar life history but *without* two copies of the short allele. Likewise, Benjet, Thompson, and Gotlib (2010) reported that adolescent girls who were victimized *and* held two copies of the short allele were more depressed than those without two copies. Thus, the neurobiology of abuse literature calls our attention to the importance of biological profiles (see Vaillancourt, Hymel, et al., 2013, for a review).

The Timing of Victimization

Although victimization can be situational or transient, it can also become something akin to a personal trait (Snyder et al., 2003), based on the assumption that persistent victimization leads to fundamental shifts in the way people interact socially. When victimization experiences are stable and interaction patterns remain constant (Scholte et al., 2007), individuals may be deprived of the chance to develop positive social skills. Kochenderfer-Ladd and Waldrop (2001) found that peer victimization in kindergarten was viewed as a sort of "triggering" life event leading to loneliness that remained stable long after initial exposure. For social dissatisfaction, the more apt model was "chronic stress," such that when students were chronically victimized, social dissatisfaction emerged and increased over time.

One methodological approach that addresses whether timing matters involves mapping trajectories of continuity and discontinuity. For example, when victimization desists over time, children and adolescents look less like stable victims and begin to exhibit the adjustment profile of those without a history of victimization (Hanish & Guerra, 2002; Juvonen et al., 2000; Smith et al., 2004), showing a pattern of positive adjustment (Goldbaum et al., 2007). Thus, there *can be* recovery from victimization *if and when the experience ceases*, and concurrent timing may be more important in predicting outcome than chronicity of victimization. By contrast, adulthood victimization confirms a multidomain nature of the abuse, leading to greater despair.

The Presence or Absence of Support

Does being protected through relationships make it possible to move beyond victimization and leave these experiences behind? Fundamentally, the absence of friends in school makes children vulnerable, whereas higher levels of support from friends are protective (Kendrick, Jutengren, & Stattin, 2012). Boulton, Trueman, Chau, Whitehand, and Amatya (1999) saw that across the school year, preadolescents *without* a best friend showed the greatest increase in victimization. Following preadolescents over a 1-year period, Hodges et al. (1999) found that the link between peer victimization and increases in internalizing and externalizing behavior 1 year later existed *only* for those *without* a best friend. Thus, having a friend served a buffering function reducing problems associated with continued victimization. Future research must explore whether the buffering effect of friendship is time-delimited, with its greatest impact during periods of victimization, or whether subsequent, high-quality friendships in young adulthood can play a "corrective" role for those with a history of peer victimization.

Beyond peers, there is interest in support from family and teachers. The critical impact of *not* having family support emerges when we see that links between peer victimization and suicidal ideation in adolescence are strongest when perceived family support is low (Bonanno & Hymel, 2010). In contrast, high parental emotional support emerges as a buffer against the ill effects of victimization (e.g., depression, emotional/behavioral problems; Conners-Burrow, Johnson, Whiteside-Mansell, McKelvey, & Gargus, 2009; Desjardins & Leadbeater, 2011; Yeung & Leadbeater, 2010), although the pattern of protection can look different for mothers and fathers (Desjardins & Leadbeater, 2011; Yeung & Leadbeater, 2010). The protective role of teachers is robust. The strength of connection between early relational victimization and later emotional and behavioral problems can be attenuated when young people perceive high levels of emotional support from teachers (Yeung & Leadbeater, 2010). Teacher support may be especially important when parental support is lacking (Conners-Burrow et al., 2009). In sum, there is much to learn about how tangible and perceived support from others (i.e., friends, parents, teachers) accounts for different pathways.

The Role of Self-Evaluations

Seeing oneself as a victim and assessments of threat have a powerful impact on psychological outcomes. For example, negative self-assessments among preadolescents were observed to mediate the link between increasing victimization and increasing depression over 3 years (Troop-Gordon & Ladd, 2005). Likewise, experiences of relational peer victimization tied to negative self-evaluations, which, in turn, linked to self-reported depression across 2 years of early adolescence (Taylor, Sullivan, & Kliewer, 2013). Grills and Ollendick (2002) found that, for early adolescent girls, victimization led to poor self-worth which, in turn, led to anxiety (mediation), whereas for boys, a moderation model was more fitting such that victimization combined with low self-worth was tied to greater anxiety.

One underlying driver of these connections is the way in which children and adolescents interpret their experiences of peer victimization. When trying to understand why they are being victimized, some individuals blame themselves, coming to believe that they are flawed and incapable of changing the situation (e.g., Miller & Vaillancourt, 2007). Using an attribution framework (Weiner, 1986), Graham and Juvonen (1998) demonstrated that early adolescents who showed "characterological self-blame" (believing victimization is uncontrollable and stable) reported greater social anxiety and loneliness, but not those who showed "behavioral self-blame" (believing victimization can be controlled by the self and is unstable). Similar findings from Perren, Ettekal, and Ladd (2013) show that self-blame exacerbated the impact of victimization on internalizing outcomes. Thus, one clear way to predict whether peer victimization in childhood and adolescence might tie into adulthood is to look carefully at self-cognitions. Not surprisingly, cognitive restructuring has been endorsed as part of intervention efforts to ensure that victims are not blaming themselves for these abusive peer experiences (Smith et al., 2004).

Taken together, there is evidence for risk and protective factors that intervene to create multifinality when childhood peer victimization is experienced. Although the research presented was not intended to be exhaustive, it is noteworthy that much of the literature spans the period from early to later adolescence, suggesting that we know less about risk and protection with regard to victimization that takes place in early and middle childhood. Moreover, it seems prudent to place greater weight on the longitudinal study of intervening variables as opposed to what can be concluded from a single snapshot. Based on the research reviewed, the strongest candidate for interruption includes the presence and/or absence of support from friends, teachers, and parents—a contention that is similarly supported by a systematic review of longitudinal studies (Ttofi et al., 2014). For self-evaluations, largely in early adolescence, we see a consistent intervening function. In addition, 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. Factors such as an individual's biological profile and the power of the classroom or school context hold promise as mechanisms that require further investigation. At present, we do not know whether risk and protective factors might vary across developmental stages. Although unable to evaluate this empirically, Ttofi and colleagues (2014) suggested that family factors (e.g., structure, relationships, attachment) may be more important intervening factors for younger children, whereas social support from friends and teachers may becoming increasingly important as young people move through school. Developmental stage is a key focus if we are to fully understand the mechanisms behind why some children become more vulnerable, whereas others appear to be protected through better coping.

Conclusions, Implications, and Future Directions

There can be little doubt that the acute experience of peer victimization during the school years is difficult, painful, and sometimes horrific. Across the school years, there is clear evidence that the impact of peer victimization endures for periods of time, even if the detrimental links are contained within childhood and adolescence. Evidence from prospective designs add weight to the conclusion that at least some peer victimized children (especially those struggling with other mental health challenges) face the risk of continued maladjustment as adults.

What we know from the extant literature is that there are multiple pathways involved; defined by factors like support, self-cognitions, and timing, and that the impact of early peer victimization is greater when combined with other vulnerabilities. One potent blend is the combination of aggressive tendencies alongside victimization experiences, with evidence that this group of "bully victims" or "aggressive victims" appears to be at far greater risk than "pure" or "passive victims," both concurrently (e.g., Haynie et al., 2001; Kumpulainen, Räsänen, & Henttonen, 1999) and over time (e.g., Barker et al., 2008; Burk et al., 2011; Copeland et al., 2013; Kumpulainen & Räsänen, 2000). It is further concerning that we see victims moving into a trajectory of becoming bullies (Haltigan & Vaillancourt, 2014).

There are most likely other factors (e.g., temperament, coping) that interact with victimization and contribute to different pathways to adjustment or maladjustment that have not received sufficient attention. Although not a focus in most of the research to date, future research needs to address the question of whether the impact of victimization varies as a function of the type of bullying experienced with clear evidence of multifactor models that are invariant over time (e.g., overt and social; Rosen, Beron, & Underwood, 2013), and evidence suggesting that different types of victimization might be tied to different outcome pathways (e.g., direct and indirect victimization; Carbone-Lopez, Esbensen, & Brick, 2010).

The question of directionality still remains, with some evidence of symptoms preceding victimization (e.g., depression; Tran, Cole, & Weiss, 2012; Vaillancourt, Brittain, et al., 2013), which, in turn, predicts negative outcomes (e.g., low peer acceptance; Kochel, Ladd, & Rudolph, 2012), and other research showing the connection moving from victimization to adjustment, but not in the reverse direction (e.g., self-esteem, Overbeek et al., 2010). There is also evidence of reciprocal connections creating a negative spiral (e.g., externalizing difficulties: Reijntjes et al., 2011, and van Lier et al., 2012; internalizing difficulties: Reijntjes et al., 2010). To address long-term outcomes and directionality more definitively, we need prospective studies with standardized measures of peer victimization, multiple informants, and multiple points of measurement (from childhood into adulthood) that allow us to study growth and decline in victimization experiences and to identify trajectories. In contrast to the common "variable-oriented" strategy used to identify possible causes, peer victimization research benefits from a "pathways approach—exploring common and uncommon outcomes as well as alternate routes by which outcomes are achieved by different individuals" (Cicchetti & Rogosch, 1996, p. 598).

It might be sensible to make better use of the hypothesis-generation capacity of qualitative research, and ask people directly about whether and how they think their experiences of peer victimization have contributed to who they are as adults, and why it is that some might continue to see themselves as a victim, whereas others do not. We suggest that these in-depth constructions will shed light on possible mechanisms, and indeed mixed-methods designs are gaining in use across multiple disciplines.

From the perspective of practice, the evidence supporting multifinality provides insight into the help we extend to young people who experience peer victimization. Some children and adolescents benefit from interventions aimed at coping and resilience, with a focus on leveraging available protective mechanisms, reinforcing positive beliefs about the self, and creating opportunities for positive peer experiences. More comprehensive interventions are required for even more vulnerable young people, particularly those struggling with mental health challenges alongside abusive peer experience. The multifinality approach, in which experiences of peer victimization may be overcome later in life, provides us with cautious optimism moving forward.

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