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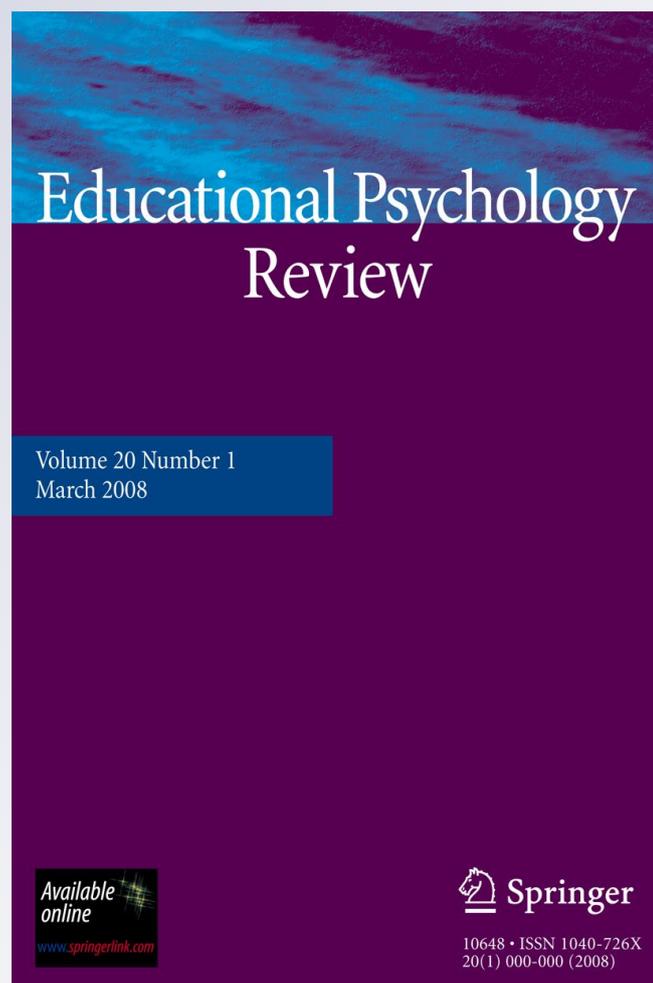
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Identifying Potential Mediators and Moderators of the Association Between Child Maltreatment and Bullying Perpetration and Victimization in School

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Abstract A growing body of literature is demonstrating associations between childhood maltreatment and bullying involvement at school. In this literature review, four potential mediators (explanatory) and three potential moderators (mitigates or exacerbates) of the association between childhood maltreatment and school bullying are proposed. Mediators include emotional dysregulation, depression, anger, and social skills deficits. Moderators reviewed include quality of parent–child relationships, peer relationships, and teacher relationships. Although there might be insurmountable challenges to addressing child maltreatment in primary or universal school-based prevention programs, it is possible to intervene to improve these potentially mediating and moderating factors.

Keywords Bullying · Child welfare · Maltreatment · Mediators · Moderators · School

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A recent report from the US Department of Health and Human Services, Administration on Children, Youth and Families (2009) indicates that approximately three million cases of child maltreatment are reported annually. According to the Centers for Disease Control and Prevention, *child maltreatment* is defined as any act or series of acts of commission (physical, emotional, and sexual abuse) or omission (neglect) by a parent or a caregiver, which results in harm, potential for harm, or threat of harm to a child (Leeb *et al.* 2008). The Child Abuse Prevention and Treatment Act also defines child maltreatment as “any recent act or failure to act on the part of a parent or caretaker that results in death, serious physical or emotional harm, sexual abuse, or exploitation or that presents an imminent risk of serious harm” (as cited by Child Welfare Information Gateway 2007). Since the 1960s, child maltreatment has been a major focus of social research (Tajima 2004), and during the past 30 years, there has been unprecedented interest in child outcomes associated with experiences in maltreatment (English 1998). Findings from studies have consistently reported that children and adolescents who are physically, emotionally, and sexually abused are likely to engage in risk-taking (Bornovalova *et al.* 2008; Holmes 2008; Roode *et al.* 2009) and delinquent (Stewart *et al.* 2008) behaviors.

Recent events in the USA such as school shootings and bullycide (i.e., suicide attributed to bullying victimization) have also generated a major research interest in understanding factors that are associated with children’s experiences in bullying perpetration and victimization in school (see Garbarino 2004). Although a number of definitions of bullying perpetration and victimization exist in research, *bullying* is commonly identified as verbal, physical, or social forms of aggression inflicted by an individual or a group of individuals and directed against a child or adolescent who is not able to defend himself or herself (for a review, see Espelage and Swearer 2003). Individuals can be perpetrators, victims, or both. Bullying perpetration and victimization differ from normal peer conflict because the aggression is proactive, intentional, and repeated and involves differential power relationships (Olweus 1993). Although the exact prevalence of bullying perpetration and victimization in schools is difficult to ascertain due to variations in the measures across studies (Espelage and Horne 2008; Espelage and Swearer 2003), findings from several studies suggest that bullying is a common occurrence in schools. The National Center for Education Statistics of the US Department of Justice found that, in 2007–2008, 25% of public schools reported that bullying was a daily or weekly occurrence (Robers *et al.* 2010). Studies also consistently report several negative outcomes associated with bullying perpetration and victimization in school, such as depression (Klomek *et al.* 2008; Klomek *et al.* 2007; Sourander *et al.* 2009), psychopathologic behaviors (Kim *et al.* 2006), health problems (Rigby 2003), and suicidal behaviors (Klomek *et al.* 2009).

Family is where children first observe and experience interpersonal relationships; it is through the family that children learn what to expect, how to behave, and the necessary interpersonal skills in relationships outside of the home (Stocker and Youngblade 1999). Research has documented that maltreatment at home can potentially increase the risk of bullying perpetration and victimization in school (Duncan 1999; Dussich and Maekoya 2007), a relationship which can also be explained by several theories. For instance, attachment theorists argue that abuse during childhood can lead to the development of a negative or insecure attachment with an abusive caregiver (Cicchetti 1989; Toth *et al.* 1992), which can result in difficulties in establishing positive peer relationships in school. Social learning theorists hypothesize that aggressive behavior is learned and reinforced through child observation of parental modeling, of abusive caregivers, as well as of deviant and antisocial peers (Akers 1998; Bender 2010). Finally, life course theorists suggest that bonding to conventional people or institutions that adhere to law-abiding and prosocial behavior would enable children and adolescents to refrain from antisocial behaviors, such

as bullying (Bender 2010; Sampson and Laub 1993). Youth who are abused or neglected during childhood may feel disconnected from conventional institutions (e.g., school) and might not develop this critical bond in turn (Bender 2010). Consequently, these youth may be more likely to engage in aggressive peer interactions.

Despite the significance of research findings and theoretical support, rarely do children who experience violence at home immediately become aggressive individuals (Grogan-Kaylor and Otis 2003; Moffitt and Caspi 2001; Widom 1989). Rather, violence emerges in some children through complex pathways where a developing child's risk for violence increases with each added exposure to violence or engagement in misconduct as well as continued exposure to deviant role models (Bender 2010; Moffitt and Caspi 2001). Consistent with Widom's (1989) cycle of violence theory, abused and victimized children are at risk of engaging in violent and delinquent acts, yet this propensity is not always realized. Relatedly, children who are victimized at home are also likely to experience developmental, behavioral, interpersonal, and school-related problems, increasing their vulnerability and placing them at risk of bullying victimization in school.

The purpose of this article is to enhance our understanding of the relation between maltreatment and bullying perpetration and victimization by examining a number of potential mediating factors that can explain this association and moderating factors that can either exacerbate or reduce this association. A recent study by Bender (2010), which investigated the linkage between maltreatment and juvenile delinquency, suggested that research studies that focus on identifying mediators and moderators will assist greatly in designing and implementing programs to address the needs of these children and adolescents through child welfare and juvenile justice systems as well as school-based programs.

Current Findings and Research Gaps

Parent–child relationships at home can influence peer relationships outside the home (Bolger and Patterson 2001; Knutson *et al.* 2004; Mohr 2006; Ohene *et al.* 2006; Shields and Cicchetti 2001). Evidence from research suggests that childhood maltreatment experiences can place adolescents at risk of bullying victimization and perpetration in school. Findings from several studies also indicate that physical and sexual abuse (Duncan 1999; Mohr 2006; Schwartz *et al.* 1997) and parental neglect at home (Bolger and Patterson 2001; Bolger *et al.* 1998; Chapple *et al.* 2005) are significantly associated with greater peer rejection. The longitudinal study of Chapple *et al.* (2005) found that, in a representative community sample, youth who were emotionally and physically neglected by their parents during childhood were likely to be rejected by their peers in early adolescence and to subsequently develop violent tendencies during late adolescence.

Researchers have also found that abused children are likely to be submissive in an effort to maintain their safety in a violent home situation. These children become easy targets for peer rejection and bullying victimization outside the home (Schwartz *et al.* 1993) as they are unlikely to retreat or defend themselves when they are victimized by their peers (Shields and Cicchetti 2001). An earlier study by Browne and Finkelhor (1986) also proposed that children who are sexually or physically abused can develop a sense of powerlessness and lower self-confidence, lack of assertiveness, and inability to establish trust with others. Because of this sense of powerlessness, these children may come to expect to be harmed and consequently fail to protect themselves, all of which may lead bullying perpetrators to single them out for targets of bullying victimization.

Studies also report that bullying perpetration is a common outcome of child abuse and neglect (Bolger and Patterson 2001; Knutson *et al.* 2004; Knutson and Schartz 1997; Ohene *et al.* 2006). Several researchers have posited that children who are physically, emotionally, or sexually abused or neglected by their parents or primary caregivers are more likely to experience other forms of victimization outside the family (Cicchetti *et al.* 1992; Shields and Cicchetti 2001). Bolger and Patterson's (2001) longitudinal study investigated peer rejection, aggressive behavior, and social withdrawal among a representative community sample of 107 maltreated (physical, emotional, and sexual abuse and neglect) and an equal number of nonmaltreated children. Findings indicate that experiences with abuse were associated with risk of peer rejection repeatedly from childhood to early adolescence and that abused children were significantly more likely to exhibit aggressive behavior, as reported by peers, teachers, and children themselves. The results held for both boys and girls, from childhood through early adolescence, which indicated that negative parent–child interactions can influence children's aggressive behavior while leading to a failure to develop positive interpersonal skills. The researchers hypothesize that parents' failure to use appropriate discipline techniques was a major predictor of children's subsequent aggressive behavior. These researchers have confirmed the existence of maltreatment–bullying association.

Few research studies have focused on the potential mediating and moderating factors between child abuse and neglect and bullying behavior. One possible reason for this gap is that the research literature on bullying and those focusing on child maltreatment have largely developed independent of one another. Also, it is likely to be challenging to assess all forms of child maltreatment within school-based studies given the safeguards around mandated reporting of abuse. On one hand, child welfare research has identified numerous predictors of maltreatment. On the other hand, a body of school violence research studies has established several risk factors for bullying perpetration and victimization, which is consonant with the broader research literature linking parental behavior with the development of child behavior problems (Gershoff 2002; Gershoff *et al.* 2010). Bullying behavior encompasses various subcategories (see Hong and Espelage, forthcoming), such as physical, emotional, mental, and emotional aggression. Despite these subcategories, researchers have commonly identified bullying as a subset of aggressive behavior (Olweus 1993) directed against a particular individual or a group of individuals. Thus, mediating and moderating factors that are relevant to all forms of maltreatment (i.e., physical, psychological, emotional, and sexual abuse) and bullying perpetration and victimization (i.e., verbal, physical, and social aggression) were considered in this review. We suggest a number of potential mediating and moderating factors that need to be considered in research on child maltreatment and bullying perpetration and victimization, which overlap considerably.

Potential Mediating Factors

A *mediator* is a variable that intervenes between an independent variable and a dependent variable and that statistically explains some amount of the relationship between the independent variable and the dependent variable. For example, child maltreatment (independent variable) might be associated with depression in children (mediator), which then might in turn be associated with bullying perpetration (Baron and Kenny 1986). A mediator effect is often tested when there appears to be a significant direct effect between the predictor variable and outcome variable (Baron and Kenny 1986; Bennett 2000);

however, when the association between the predictor and outcome variable is more distal (such as childhood abuse with adolescent outcomes), it is also permissible to proceed with the mediator analyses (Shrout and Bolger 2002). However, we should also note that, even if the relationship tends toward small effect sizes, it is not necessarily weak. In this section, four potential mediating factors explaining the maltreatment–bullying perpetration/victimization relationship are examined: (1) *emotional dysregulation*, (2) *depression*, (3) *anger*, and (4) *social skills deficit*.

Emotional dysregulation

Emotional dysregulation represents the first mediating factor, which can potentially explicate the relation between child maltreatment and bullying perpetration/victimization. Emotional dysregulation can be defined as the inability of an individual to recognize, understand, and modulate their emotions and to match their emotions to the reality of the situation around them (Gratz and Roemer 2004; see also Keenan 2000). Children who are unable to regulate their emotions may manifest both elevated levels of aggression and antisocial behavior, as well as heightened levels of depression and anxiety, that are not warranted by the particular social situation in which they are involved (Chang *et al.* 2003; Lee and Hoaken 2007). Children's emotional dysregulation is recognized as a significant outcome of abuse (Gil *et al.* 2009; Kelly 1992). As research evidence suggests, physical and emotional abuse and neglect adversely affect children's physical, cognitive, social, and emotional development, which can accumulate over time (English 1998). Glaser (2000) also argued that physical and emotional abuse and neglect are a potential source of stress, which can increase the likelihood of children's emotional dysregulation. As noted earlier, child maltreatment impedes the ability of a child to develop health models of attachment. A large and growing body of literature has highlighted the importance of the development of healthy attachments in providing a child with the opportunity to develop some level of ability to emotionally regulate (see Cassidy and Shaver 2008; Mikulincer *et al.* 2003; Zimmermann *et al.* 2001), which is associated with quality of peer relationships (Contreras and Kerns 2000; Contreras *et al.* 2000; Kerns *et al.* 2007). Consequently, when the development of healthy attachment bonds is disrupted, as in the case of situations where parents maltreat their children, the development of ability to emotionally self-regulate is seriously compromised.

Children transfer negative emotional response strategies they have acquired from their parents' punitive and abusive emotions to other contexts (Chang *et al.* 2003). Until recently, there have been relatively few studies on the association between children's emotional dysregulation and bullying perpetration or victimization. A limited number of studies have found that aggressive behavior in school is significantly high for children and adolescents with emotional dysregulation (Chang *et al.* 2003; Kaukiainen *et al.* 2002). The study of Chang *et al.* (2003) reports from a sample of 325 Chinese children and their parents that harsh parenting practices have direct and indirect effects on children's aggressive behavior in school through the mediating process of children's emotional dysregulation. Findings from a limited number of research studies also indicate that children with poorly regulated emotion are at risk of bullying victimization and peer rejection (Shields *et al.* 2001). There is a well-established literature linking emotional dysregulation to both increased aggression and antisocial behavior as well as to increased anxiety and depression (Leadbeater *et al.* 1999; Shields and Cicchetti 1998; Marsee and Frick 2007). Emotional dysregulation is particularly high among peer-victimized children who are also identified as aggressive (Schwartz and Proctor 2000; Schwartz *et al.* 2001; Toblin *et al.* 2005), compared to passive victims and bullies. Toblin *et al.* (2005) examined the social–cognitive and behavioral

attributes of 240 children in a Los Angeles elementary school identified as “aggressive victims” (i.e., peer-victimized children who display aggressive behavioral tendencies) in comparison to those identified as bullies, passive victims, and normative comparison group. The researchers found that “aggressive victims” were characterized by impairment in emotional regulation and difficulties across domains of functioning. Aggressive victims may experience problems with displaying proper emotion, which can hamper their ability to successfully establish peer relationships in school and increase the likelihood of bullying victimization. Consequently, these children might exhibit aggressive behavioral tendencies as a result.

Depression

Depression is the second potential mediator, which explains the association between maltreatment and bullying perpetration or victimization (Fig. 1). Studies have consistently shown that physically, emotionally, or sexually abused youth report high levels of internalizing behaviors, such as post-traumatic stress disorder (Grassi-Oliveira and Stein 2008; Lev-Wiesel *et al.* 2009; Runyon and Kenny 2002) and depression (Danielson *et al.* 2005; Gilbert *et al.* 2009; Stuwig 2005; Turner *et al.* 2006) during childhood, as well as adolescence and adult years (Hussey *et al.* 2006; Johnsona *et al.* 2002; Runyon and Kenny 2002; Stuewig and McCloskey 2005). Such findings are congruent with the growing cross-cultural research literature linking harsh parenting and harsh physical discipline to increases in internalizing behavior (Gershoff *et al.* 2010; Han and Grogan-Kaylor 2011).

Depression has also been empirically linked to bullying victimization and perpetration by a limited number of researchers. Studies have reported that depression has been found to be a common mental health symptom experienced by victims of bullying (for a review, see Espelage and Swearer 2003). Longitudinal studies have found that bullying victims (Klomek *et al.* 2008; Sourander *et al.* 2009) and perpetrators (Klomek *et al.* 2007) are likely to be at risk for subsequent depression. Researchers also report that depression is a predictor of bullying victimization (Klomek *et al.* 2007; Espelage *et al.* 2001; Fekkes *et al.* 2004). A study by Fekkes *et al.* (2006), which examined the association between health-related symptoms and bullying victimization among 1,118 school-age children in the Netherlands, found that children with depressive symptoms were significantly more likely of being newly victimized by their peers than children who had a history of victimization. The

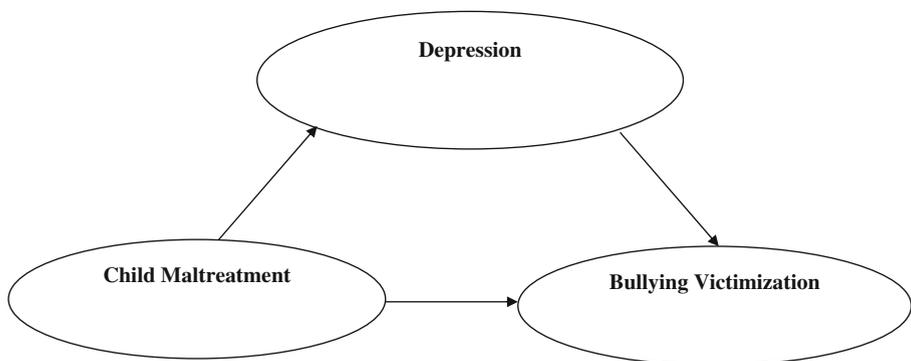


Fig. 1 Example of depression as mediator of the association between child maltreatment and bullying victimization

researchers theorized that depressed or anxious behaviors could make the child an easy target for bullying victimization, as they appear to be more vulnerable than children without depression or anxiety. These children are perceived as less likely to stand up for themselves when they are picked on, and the perpetrators may fear less retaliation from them.

Anger

The third potential mediator, which may explain the relationship of maltreatment to bullying perpetration and victimization, is anger. Studies consistently report that anger is a common adaptive response to physical, emotional, and sexual abuse and neglect (Bennett *et al.* 2005; Briere and Elliott 2003; Harper and Arias 2004; Springer *et al.* 2007). Victims of abuse struggle with unexplained emotions such as anger and hostility throughout childhood and then adult years. Springer *et al.* (2007) explored the impact of physical abuse on mental and physical health of 2,000 men and women, controlling for family background and childhood adversities. Findings from the study indicate that childhood physical abuse by parents was a significant correlate of anger, depression, and anxiety.

Anger has also been consistently found to be a significant predictor of bullying and aggression among children and adolescents (Arsenio and Lemerise 2001; Bosworth *et al.* 1999; Camodeca and Goossens 2005; Espelage *et al.* 2001). In particular, anger is a key element of *reactive aggression* (i.e., a defensive response to abuse, which involves both bullies and victims) than *proactive aggression* (i.e., goal-directed and deliberate action in order to achieve one's goals and involves bullies only; Roland and Idsoe 2001). One study (Camodeca and Goossens 2005), which examined social information processing and emotion in a bullying situation (both reactive and proactive aggression) of 242 Dutch children, found that both bullies and victims were more likely to exhibit anger and aggressive behavior, compared to children identified as bullies only and those who were not involved in bullying situations. Moreover, anger has also been found to mediate the association between maltreatment at home and peer aggression in school, as indicated in one research finding (Dodge 1991). Dodge's (1991) study found that children's experience with physical abuse and neglect is a pathway to the development of angry and hypervigilant style of interpersonal interactions that could lead to aggressive behaviors toward peers. These findings suggest that anger is a common reaction to abuse in various settings (e.g., home, school). Victimized children may be easily angered and retaliate through bullying and aggression (Arsenio and Lemerise 2001).

Social skills deficit

The fourth and final potential mediating factor that could explain the pathway from maltreatment to bullying behavior is that of social skills deficit. Social skills are critical to successful functioning for children and adolescents in school (Schneider *et al.* 1989). Healthy and prosocial participation in peer and school settings requires the ability to develop social skills to negotiate situations of potential conflict and disagreement. Most recently, researchers have investigated a wide range of correlates and consequences of poor social skills among children and adolescents (Fox and Boulton 2005). Earlier research studies have documented that experiences of physical abuse and neglect can be detrimental to a child's emotional and social skills development (e.g., Browne and Finkelhor 1986; Trickett and Kuczynski 1986; Zingraff *et al.* 1993). A more recent study by Ohene *et al.* (2006) also reports that children whose parents employ harsh and abusive disciplinary practices run the risk of developing poor social skills outside the home. Abused and

neglected children are more likely to experience difficulty in forming secure attachments with their caregivers than nonabused children. Lack of secure attachments frequently leads to difficulties in establishing positive social relationships outside the family. A study by Elliott *et al.* (2005), which examined the link between physical abuse and social isolation from the National Youth Survey, reported that youth who experienced violence were found to be more socially isolated from their friends and from school than those who had not been physically abused. The researchers note that additional research is needed to identify additional mediators of the connection between physical abuse and social isolation. However, the authors theorized that, not only is abuse detrimental to secure attachment to others, but lack of attachments to others is related to compromised social skills development and low self-esteem, which in turn are associated with social isolation. Interestingly, one study also reported that parents who physically abuse their children are isolated from their own personal social support networks, which may further influence children's social development because the children are also isolated from role models of adults exhibiting positive social relationships (Howe and Espinosa 1985). Although the researchers found that abused children in newly formed peer groups were less socially competent than nonabused children, abused children in well-established peer groups were similar to nonabused children in frequency of social interactions and in their expression of positive emotions. They concluded that abused children might benefit from social skills instruction when interacting within well-established peer groups.

Several researchers consistently report that children with poorly developed social skills and those who are socially withdrawn are more likely to experience negative interpersonal relations outside the home, such as bullying and peer conflicts (Champion *et al.* 2003; Dill *et al.* 2004; Fox and Boulton 2005). An earlier study by Elliott (1991) found that “bully victims lack social skills, have no sense of humour [humor], have a serious ‘demeanor’ and are incapable of the relaxed give and take of everyday life” (p. 11), which suggests that social skills training programs for bully victims are indicated (DeRosier 2004; Fox and Boulton 2003). A limited number of studies also report that victims of bullying display nonassertive behavior, making them vulnerable to victimization (Champion *et al.* 2003; Schwartz *et al.* 1993). Champion *et al.* (2003), for example, found from a sample of 54 early adolescents classified as “nonbullying victims” that these adolescents have subtle difficulties managing confrontation adaptively in various situations where peer interactions occur. These types of behaviors mark children out as easy targets. Once they are targeted for victimization, these individuals reward the bullying perpetrators through acts of submission (Schwartz *et al.* 1993).

Potential Moderating Factors

A *moderator* is a categorical variable (e.g., gender, race) or continuous variable (e.g., social support, school belonging) that affects or modifies the strength, and possibly even the direction, of the association between an independent variable and a dependent variable (Baron and Kenny 1986). Moderators imply that relations of two variables vary across levels of a third variable—the moderator (Hinshaw 2007). An examination of moderating factors is important in investigating *when* or under what conditions the relationship is likely to occur between the independent and dependent variables. A number of researchers have commonly identified parent-, peer-, and school-level risk factors for bullying victimization and perpetration in school (for a review, see Hong and Espelage, forthcoming). However,

little is known empirically as to whether these factors can also potentially inhibit bullying perpetration and victimization.

In this section, three potential moderating factors that could potentially buffer the link between maltreatment and bullying perpetration or victimization are explored: (1) *parent–child relationship*, (2) *peer relationship*, and (3) *teacher relationship*.

Parent–child relationship

Empirical evidence from research findings suggest that hostile, conflictive, and distant parent–child relationships are evident in abusive homes and are associated with negative child outcomes, such as bullying perpetration and victimization (Fig. 2) (Espelage and Swearer 2003; Hong and Espelage, forthcoming). However, despite the presence of maltreatment, a secure relationship and attachment to a nonabusive parent or other caring and supportive adult figure has also been reported as a moderator, which mitigates the negative effects of childhood physical, emotional, and sexual abuse (Aspelmeier *et al.* 2007; Bacon 2001; Egeland *et al.* 1993; Herrenkohl *et al.* 1994). Aspelmeier *et al.* (2007) examined the relations between attachment security and psychological functioning of 324 female university students who reported experiencing sexual abuse during childhood. Results from the research indicate that positive relationship and attachment security in parent and peer relationships buffered the negative outcomes of child sexual abuse (e.g., trauma). Other researchers also reported that maltreated children and adolescents who had at least one supportive parent were more likely to develop self-confidence and experience mastery of the environment (Egeland *et al.* 1993) and remain in school (Herrenkohl *et al.* 1994). There are parallels in the broader literature on parenting, which provides limited evidence that the presence of a warm and supportive relationship with a parent may, to some extent, offset the degree to which harsh parenting is associated with the development of problem behaviors. However, it is worth noting that, even though a warm and supportive relationship with parents may somewhat moderate other aspects of parenting, an important review of the literature on physical discipline found evidence of many studies that indicated that the relationship between physical punishment and undesirable child outcomes persisted even in the presence of warm and supportive parenting (Gershoff 2002).

Parent–child relationships shape children and adolescents' interpersonal relationship and socialization skills outside of the family environment. Researchers have consistently found

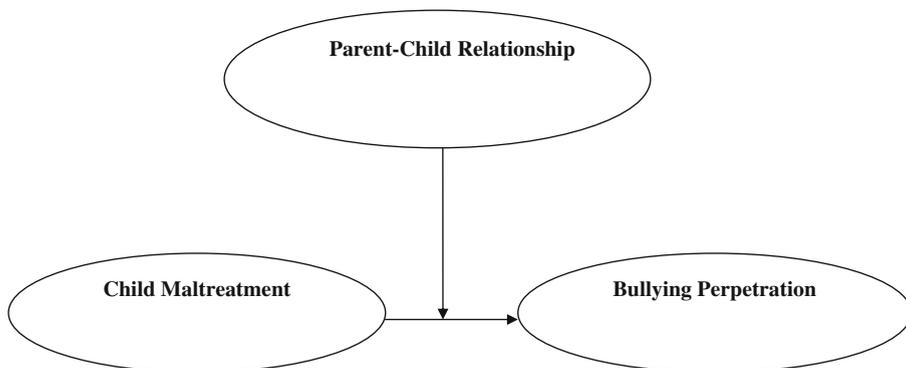


Fig. 2 Example of parent–child relationship as a moderator of the association between child maltreatment and bullying perpetration

that positive familial relationships and supportive adult figures also reduce youths' propensity to engage in bullying behavior (Baldry and Farrington 2005; Espelage *et al.* 2000). A study by Baldry and Farrington (2005), which consisted of a sample of 679 male adolescents in an Italian high school, reported that the quality of family relationships could foster or inhibit youths' experiences with bullying and victimization. Results suggested that youth whose parents were characterized as punitive, or with whom youth had a conflictual relationship, were at a heightened risk of bullying and victimization, while those with supportive and authoritative parents were less likely to be involved in bullying and victimization. Findings from the research of Espelage *et al.* (2000), which included 558 middle school students in the USA, also indicated that parental physical discipline was positively associated with bullying behavior, while the presence of positive adult role modeling in the home reduced youths' propensity for engaging in bullying at school. Thus, it is imperative that researchers and practitioners further assess the quality of parent–child relationships and parenting practices when examining factors that are associated with bullying and victimization.

Relationship with peers

A youth's relationship with peers is the second potentially relevant moderating factor. Negative peer relationships (e.g., deviant peer affiliation) can exacerbate adverse outcomes associated with maltreatment, such as bullying perpetration and victimization. In contrast, positive peer relationships might buffer the effects of maltreatment. Relatively few studies have examined the relations between maltreatment and children's peer association (Fergusson and Horwood 1999; Herrenkohl *et al.* 2003; Tyler *et al.* 2003). Nevertheless, these studies have found that children who are physically, emotionally, or sexually abused at home are more likely to become "loners" or to establish friendships with deviant and antisocial peer groups (see also Bender 2010). Likewise, youth who were frequently maltreated are more likely to run away from home where they are susceptible to deviant peer affiliation. This is evident in the study of Tyler *et al.* (2003), which investigated the impact of childhood sexual abuse on later sexual victimization among 372 homeless youth in Seattle. The researchers reported that sexually abused youth who ran away from home and became homeless then interacted with deviant peers and engaged in risky sexual practices. Moreover, a limited number of studies have also found that maltreated children who are placed in residential care or group home settings through the child welfare system also are likely to be exposed to negative peer influences (Bender 2010; Dishion *et al.* 1999; Ryan *et al.* 2008). In contrast, Lee and Thompson (2009) reported that positive peer influences in a group home setting could potentially buffer the iatrogenic effects of peer group association and relationships by providing structure and expectations for behavior.

Adolescence is a developmental time when friendships and peer affiliations are crucial for healthy identity and social development. Adolescents seek autonomy from their caregivers and turn to their friends and peers for social support (Hong and Espelage, forthcoming). Findings from a number of researchers (Barboza *et al.* 2009; Holt and Espelage 2007; Mouttapa *et al.* 2004; Rodkin and Hodges 2003; Schmidt and Bagwell 2007) suggest that peer association is correlated with involvement in bullying situations. Thus, it is no surprise that negative peer affiliations can be a significant predictor for bullying and aggressive behavior. Longitudinal studies reveal that "deviancy and antisocial training" within adolescent friendships are predictors for subsequent delinquent behavior, substance use, and aggressive behaviors (Dishion *et al.* 2002; Poulin *et al.* 2001; Weiss *et*

al. 2005). Findings from two experimentally controlled intervention studies of Dishion *et al.* (1999) suggest that high-risk adolescents are particularly vulnerable to aggressive peer interactions, compared with low-risk adolescents.

However, positive peer relationships characterized as having high levels of peer acceptance and social support can also be a protective factor against bullying victimization, as evident in research findings. Demaray and Malecki's (2003) research findings indicate that youth with high levels of peer acceptance and peer social support are less likely to be victimized by their peers at school. In addition to peer acceptance and social support, positive friendships can also protect youth from bullying victimization (Bollmer *et al.* 2005; Hugh-Jones and Smith 1999; Schmidt and Bagwell 2007). Rigby (2005) found that positive peer relationships and friendships reduced the likelihood of bullying victimization in school among a sample of 400 elementary and middle school students in Australia.

Relationship with teachers

The third potential moderator for the relationship of child maltreatment with bullying perpetration or victimization is children's relationships with teachers at school. A limited number of research findings suggest that physically, emotionally, or sexually abused children face barriers to normal developmental activities, which manifest as poor coping skills in the classroom and school (Miller 2003). Consequently, these children develop negative relationships with their teachers at school (Lynch and Cicchetti 1992). On the other hand, some maltreated children with an insecure attachment with their abusive caregiver may turn to teachers as an alternative or secondary attachment figure. Considering that children have frequent contact with their teachers at school, some maltreated children might seek supportive experiences with caring and involved teachers or other nonabusive adult figures (see Lynch and Cicchetti 1992).

The quality of teacher–student relationships can also determine whether children are likely to engage in bullying at school. Teacher–student relationships that are characterized as lacking in support and involvement might contribute to bullying in school, as research findings suggest (for a review, see Espelage and Swearer 2003). Teachers might foster or prevent bullying incidents, depending on whether they promote positive interactions among students or if they are aware of bullying and conflictual situations with peers among students (Espelage and Swearer 2003). Studies have documented that teachers are sometimes not aware of bullying in their classrooms and schools, as evidenced by their reporting lower prevalence rates of bullying than students (Stockdale *et al.* 2002). Considering that teachers are uninvolved or unaware of bullying situations, students are less likely to turn to their teachers when confronted with bullying at school. A study by Rigby and Bagshaw (2003), which asked 7,000 middle school students about their relationships with their teachers and whether their teachers intervened in bullying incidents, found that 40% responded “not really” or “only sometimes interested” in deterring these behaviors.

Discussion

Four potentially relevant mediating factors (i.e., emotional dysregulation, depression, anger, and social skills deficits) and three moderating factors (i.e., parent–child relationship, peer relationship, and teacher relationship) were identified in this review. These mediators and moderators need to be further examined empirically, which can enhance our understanding

of how physically, emotionally, and sexually abused and neglected youth are involved in bullying perpetration and victimization at school. The relationship between abuse and neglect and bullying is highly complex, but additional empirical investigations could disentangle the complexity of the pathways linking the two phenomena.

Research implications

Despite a dearth of literature available on the connection between child maltreatment and bullying involvement, there appears to be enough support for an association to forge a major research agenda. It is imperative that scholars conducting longitudinal studies on child abuse and neglect assess bullying and victimization experiences, including bullying involvement as a bully, victim, or bully–victim in community, clinically, and nationally representative samples. Only with longitudinal data and appropriately sophisticated statistical analysis can researchers begin the process of examining the complex relationship between child maltreatment, bullying, and victimization, as well as the existence of potential mediators and moderators whose discovery will enrich our scientific understanding of these relationships and our ability to develop appropriate sophisticated and targeted interventions.

Furthermore, the school-based research community must learn to negotiate with Institutional Review Boards (IRB) in order to appropriately ask about child maltreatment experiences. Indeed, children and adolescents who report current or past maltreatment must be provided with referral information after completing a research protocol and encouraged to seek help from teachers, counselors, or other trusted adults if they are in danger. Most school-based bullying researchers have not asked these questions because they have been required by their IRB to report the abuse to school administrators. Researchers must learn to think creatively about how to provide appropriate referrals to services for study participants who indicate that they have been subject to bullying. We will never completely be able to assess the link between maltreatment and bullying involvement in large-scale studies unless we address the human subjects' realities of such research.

That said, future research could also assess constructs related to child maltreatment by studying harsh parenting, sibling aggression, or family conflict or hostility. For example, in a sample of American middle school children, significant differences were found in the prevalence of bullying of and victimization by siblings among bullies, victims, those who were both bullies and victims, and those not involved in bullying (Duncan 1999). Nearly one third of students who reported bullying their peers were also bullied by their siblings (29.03%). More than half of those who bullied their peers (56.45%) reported bullying siblings. Generally, children who witness or experience the perpetration of violence in the home may identify with the perpetrator and may learn that violent and aggressive acts are appropriate behaviors, especially when the behavior goes unpunished (Baldry and Farrington 1998; Espelage and Low, under review). Thus, future research should ask about sibling aggression and witnessing of violence within the home as a proxy of child maltreatment or neglect.

Practice implications

Child welfare Child safety and well-being are paramount to the mission of child welfare. An awareness of the links between child maltreatment in the home and community must incorporate an extended awareness of the school setting as another

context in which these relationships may play out. Practitioners must consider the school environment as a place in which victimized children and adolescents are at risk for revictimization. Case management plans must include school-related goals and objectives and community–school collaborations need to be fostered. The differentiation of subpopulations within the category of children who have been maltreated takes on considerable importance in this review of empirical studies and theories. The relationship between child welfare and the fields of counseling and social work practices in the school settings becomes critically important in the design and implementation of preventative and remedial strategies.

We should also note, however, that collaborative efforts between child welfare and school systems have been faced with heavy challenges, considering that few mechanisms exist to support successful collaborations (Altshuler 2003). Both institutions have different foci and have difficulty working collaboratively with each other, and children who are being served by either system often receive inadequate services from both systems (Altshuler 1997; Goren 1996). As suggested by Altshuler (2003), administrators in both child welfare and school settings can help facilitate collaborative efforts through commitment to joint planning and goal setting. Moreover, school social workers, in particular, are in a unique position to bridge a gap between the two systems, as they “speak the same language” as caseworkers and understand the “educational language” that permeates school systems (Altshuler 2003).

School services Despite the growing evidence that violence in the home is a strong predictor of bullying victimization and perpetration in school (see Espelage and Low, under review; Swearer *et al.* 2006), none of the large-scale comprehensive school-based bullying prevention programs or frameworks specifically address exposure to family violence or child maltreatment. However, school-based bullying programs can focus on the potential mediating variables of emotional dysregulation, depression, anger, and social skills deficit. One approach that is gaining more attention in bullying prevention is the social and emotional learning (SEL) approach (Frey *et al.* 2005). SEL as a framework emerged from influences across different movements that focused on resiliency and teaching social and emotional competencies to children and adolescents (Elias *et al.* 1997). In response, advocates for SEL use social skill instruction to address behavior, discipline, safety, and academics to help youth become self-aware, manage their emotions, build social skills (empathy, perspective-taking, respect for diversity), friendship skill building, and make positive decisions (Zins *et al.* 2004). An SEL framework includes five interrelated skill areas: self-awareness, social awareness, self-management and organization, responsible problem solving, and relationship management. Recently, a meta-analytic study of more than 213 bullying prevention and intervention programs found that, if a school implements a quality SEL curriculum, the school can expect better student behavior and an 11-point increase in standardized test scores (Durlak *et al.* 2011). The gains that schools see in achievement come from a variety of factors—students feel safer and more connected to school and academics, SEL programs build work habits in addition to social skills, and kids and teachers build stronger relationships (Zins *et al.* 2004).

Indeed, as demonstrated by our review of the potential moderating factors, it is our contention that strong relationships among parents, peers, students, and teachers and staff in classrooms and schools can ameliorate many of the negative outcomes associated with negative home environment. While it is likely that school-based programs will improve the social–emotional skills of individual children and adolescents, some adolescents will need more targeted interventions to fully address their negative home environments.

Conclusion

In summary, to reduce and prevent the occurrence of bullying in our nation's schools, disparate research and theoretical literatures on the various consequences of childhood maltreatment must be thoroughly analyzed and reviewed. In the absence of this effort, the development of effective interventions will be at risk. Clearly, the modeling of parental physical, emotional, and sexual abuse and neglect can have differential outcomes, depending on the child's developmental stage, cognition and social skills, and other positive adult role models in their life space. Researchers have consistently found that negative outcomes associated with childhood physical, emotional, and sexual abuse and neglect are likely to occur in multiple contexts, such as family, school, and neighborhood (e.g., Thornberry *et al.* 2001). Moreover, the effects of child maltreatment are likely to occur in later years. A number of studies have suggested that maltreated children are more likely to experience other forms of violence in later years, such as dating violence during adolescence (Cyr *et al.* 2006; Wolfe *et al.* 2001, 2004) and domestic violence during adult years (Bevan and Higgins 2002; Ehrensaft *et al.* 2003; Ileana 2004). Identifying the potential factors that link past experiences of maltreatment to subsequent bullying is the first step, which will illuminate effective strategies for breaking the cycle of violence. This article serves as a blueprint for researchers and practitioners in the fields of school psychology, educational psychology, counseling, and social work in understanding the pathways from maltreatment to bullying perpetration and victimization in school that explain or inhibit this association, which has major implications for research and practice.

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