The Interactive Effects of Coping Strategies and Emotion Dysregulation on Experiences of Peer Victimization During Middle Childhood

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Abstract

Although a growing body of research suggests that the strategies youth use to cope with experiences of victimization may influence their risk for subsequent adjustment difficulties, it is not yet clear what responses lead to increases or decreases in peer victimization over time. Further, relatively little is currently known regarding individual differences in the effects of coping. The central aim of the current study was therefore to examine the interactive influence of six common coping strategies (i.e., adult support seeking, friend support seeking, problem solving, humor, passive coping, and cognitive distancing) and emotion (i.e., anger and sadness) dysregulation on concurrent levels and subsequent trajectories of peer victimization over a 2-year period during middle childhood with attention to potential gender differences. Participants were 287 predominantly Caucasian children (53.7% boys) in the second and third grades from an elementary school located in a small, rural Midwestern community in the United States. Coping strategies and emotion dysregulation were assessed at Time 1 using self-reports. Children also provided ratings of peer victimization at Time 1, approximately 1 year later (Time 2), and again approximately 2 years later (Time 3). Overall, results indicated that the effectiveness of particular coping strategies may depend on children's overt, undercontrolled displays of anger and sadness; however, patterns of moderation varied according to discrete emotions, gender, and whether concurrent or prospective associations were considered. Consistent with recent recommendations, the current findings suggest that some youth may require interventions that focus on both enhancing emotion regulation skills and teaching strategies for responding to peer victimization in a more adaptive manner.

Keywords: peer victimization; coping strategies; responses; emotion dysregulation; anger; sadness; middle childhood

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The Interactive Effects of Coping Strategies and Emotion Dysregulation on Experiences of Peer Victimization During Middle Childhood

Peer victimization, or the experience of being the recipient of peers' aggressive behavior, is a prevalent interpersonal stressor affecting children and adolescents globally (e.g., Chester et al., 2015). Emerging evidence suggests that the strategies youth use to cope with such experiences may influence their risk for subsequent adjustment difficulties, including depressive and anxiety symptoms, loneliness, and aggression (e.g., Kochenderfer-Ladd, 2004; Sugimura, Rudolph, & Agoston, 2014; Visconti & Troop-Gordon, 2010). Findings to date have been mixed, however, regarding what coping strategies lead to increases or decreases in peer victimization over time (Kochenderfer-Ladd, 2004; Kochenderfer-Ladd & Pelletier, 2008; Spence, De Young, Toon & Bond, 2009; Terranova, Boxer, & Morris, 2010). Although the consequences of particular responses appear to vary among boys and girls (e.g., Kochenderfer & Ladd, 1997; Shelley & Craig, 2010), relatively little is currently known about individual differences in the effects of coping; this is a notable omission in the extant literature that may have important implications for the development of interventions as well as educators', caregivers', and clinicians' efforts to address peer victimization. Emotion dysregulation is one factor that has been prospectively associated with higher levels of peer victimization across developmental periods (e.g., Bierman, Kalvin, & Heinrichs, 2015; Godleski, Kamper, Ostrov, Hart, & Blakely-McClure, 2015). Further, it has been suggested that the effectiveness of a particular coping strategy may depend on youth's ability to regulate their emotions (e.g., Kochenderfer-Ladd, 2004). The central aim of the current longitudinal study was therefore to examine the interactive influence of six common coping strategies (i.e., adult support seeking, friend support seeking, problem solving, humor, passive coping, and cognitive distancing) and emotion (i.e., anger and

sadness) dysregulation on concurrent levels and subsequent trajectories of peer victimization over a 2-year period during middle childhood with attention to potential gender differences.

Peer Victimization

Peer interactions and relations exert a powerful influence, whether positive or negative, on the social and emotional development of children and adolescents (Bierman, 2004). Unfortunately, research conducted over the last 4 decades has revealed that a high proportion of youth across the world are exposed to peer victimization during their school-age years (for a review, see Hymel & Swearer, 2015). It appears that many experience victimization early in life; for example, previous work has shown that patterns of victimization may emerge in preschool (e.g., Crick, Casas, & Ku, 1999; Godleski et al., 2015), and up to 60% of children are subjected to some form of peer victimization during the first 4 years of elementary school alone (i.e., kindergarten through third grade; Kochenderfer-Ladd & Wardrop, 2001). With regard to adolescence, a recent survey conducted across 33 countries in Europe and North America in collaboration with the World Health Organization found that 29% of youth between the ages of 11 to 15 reported having been victimized at least once over the past few months at school (Chester et al., 2015).

Previous work investigating developmental trajectories has consistently found that, on average, peer victimization decreases over time during both middle childhood (Giesbrecht, Leadbeater, & Macdonald, 2011; Reavis, Keane, & Calkins, 2010; Rudolph, Troop-Gordon, Hessel, & Schmidt, 2011; Shell, Gazelle, & Faldowski, 2014; Troop-Gordon & Ladd, 2005) and adolescence (Sumter, Baumgartner, Valkenburg, & Peter, 2012) as well as across these two developmental periods (Cillessen & Lansu, 2015; Haltigan & Vaillancourt, 2014; Shell et al., 2014; Rudolph, Troop-Gordon, Monti, & Miernicki, 2014). However, significant variability has

also been observed in these random intercepts and slopes (Giesbrecht et al., 2011; Reavis et al., 2010; Rudolph et al., 2011, 2014; Troop-Gordon & Ladd, 2005), indicating that between-person differences exist in both the initial levels of victimization and in the trajectories of peer victimization over time. The fact that not all children experience the same pattern of victimization is further supported by trajectory subgroup analyses; for example, Biggs and colleagues (2010) identified five distinct trajectories of peer victimization from third to fifth grade, including low, moderate, decreasing, increasing, and chronic. These findings underscore the importance of examining interindividual predictors of change in experiences of victimization in order to inform the development of interventions.

It should be noted that the manner in which children are victimized may vary. Physical victimization refers to the experience of being physically attacked (e.g., hit, pushed, or kicked), intimidated, or threatened by a peer (Crick et al., 1999). In contrast, relational victimization is characterized by the manipulation of or damage to youth's peer relationships and social status by means of gossip, rumor spreading, ostracism, and/or threats of friendship withdrawal (Crick & Bigbee, 1998). The seminal work of Crick and colleagues (e.g., Crick, Casas, & Nelson, 2002; Crick & Grotpeter, 1996) clearly demonstrated the need to assess for both forms in order to achieve a comprehensive, gender-balanced perspective on peer victimization. However, extant evidence indicates a high degree of overlap between these experiences, such that children are likely to endure both physical and relational victimization simultaneously (e.g., Felix & McMahon, 2007). Results from latent class analyses have demonstrated that groups are generally distinguishable by their frequencies, rather than forms, of victimization (Ettekal & Ladd, 2017; Nylund, Bellmore, Nishina, & Graham, 2007); thus, it has been suggested that "students do not tend to view themselves as solely relational victims or only victims of physical harassment"

(Nylund et al., 2007, p. 1718). Further, both forms of victimization have been shown to make similar contributions to the prediction of youth's daily (Nishina & Juvonen, 2005) and long-term (i.e., over 3- and 4-year intervals; Rudolph et al., 2011, 2014) adjustment. Thus, peer victimization among children and adolescents may be best understood according to overall frequency rather than the specific forms to which they are exposed.

The immediate and long-term consequences of such experiences are well documented. Several meta-analyses have demonstrated that peer victimization is associated with increased risk for internalizing (e.g., depression, anxiety, loneliness; Reijntjes, Kamphuis, Prinzie, & Telch, 2010) and externalizing (e.g., aggression, delinquency; Reijntjes et al., 2011) problems, poor academic performance (Nakamato & Schwartz, 2010), somatic symptoms (e.g., headaches, stomachaches, sleep problems; Gini & Pozzoli, 2013), and suicidal ideation and attempts (Gini & Espelage, 2014) across developmental periods. Moreover, a recent review of the literature revealed that many effects may persist for decades; in particular, experiences of victimization in childhood have been linked to internalizing problems, aggression, criminal activity, problematic social relationships, and poor educational and financial achievement in adulthood (McDougall & Vaillancourt, 2015). Taking into account the myriad ways in which peer victimization impairs adaptive functioning, a growing body of research has sought to identify how youth's responses to aggressive peers may influence their subsequent risk for both maladjustment and victimization (e.g., Erath, Flanagan, & Bierman, 2007; Kochenderfer-Ladd, 2004; Sugimura et al., 2014; Visconti & Troop-Gordon, 2010).

Coping Strategies

Coping can be defined as "conscious volitional efforts to regulate emotion, cognition, behavior, physiology, and the environment in response to stressful events or circumstances"

(Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001, p. 89). Although multiple frameworks have been put forward in the study of coping (for reviews, see Compas et al., 2001; Skinner, Edge, Altman, & Sherwood, 2003), one predominant theoretical model that has been applied to peer victimization distinguishes between two basic orientations toward stressful situations: approach and avoidance (Causey & Dubow, 1992; Roth & Cohen, 1986). Approach coping strategies involve direct attempts to cognitively and behaviorally address the stressor (Causey & Dubow, 1992; Roth & Cohen, 1986). Specifically, youth may engage in *adult* or *friend support seeking*, wherein they turn to a caregiver, teacher, or peer for assistance and advice, or they may utilize *problem solving* by trying to determine the cause of their victimization and developing a plan to prevent it from happening again. In contrast, avoidance coping strategies are focused on managing the cognitive and emotional reactions arising from a stressor (Causey & Dubow, 1992; Roth & Cohen, 1986). Children and adolescents may use *passive coping*, which entails withdrawing, ruminating, and blaming themselves for a hostile encounter, or they may engage in *cognitive distancing* by ignoring or minimizing an interaction with an aggressive peer. *Humor* represents another recently examined coping strategy for peer victimization (Fox, Hunter, & Jones, 2015; Klein & Kuiper, 2006) that can be characterized as either approach or avoidance depending on the form it takes. For example, individuals may use humor to enhance relationships and reduce interpersonal tensions with peers (i.e., approach), or they may maintain a humorous perspective in order to enhance the self and avoid becoming overly upset (i.e., avoidance; Fox et al., 2015). Although youth may also resort to revenge seeking in an attempt to deal with their negative emotions by yelling at and/or hurting the peer who was mean to them, this avoidance coping strategy was not included in the current investigation due to its conceptual overlap with the measure of anger dysregulation; what's more,

previous research has already consistently demonstrated that aggression which is retaliatory in nature and characterized by difficulties managing emotional expression (i.e., reactive aggression; Card & Little, 2006; Vitaro & Brendgen, 2011) is prospectively associated with higher levels of peer victimization (Averdijk, Malti, Eisner, Ribeaud, & Farrington, 2016; Cooley, Fite, & Pederson, 2018; Ostrov, Kamper, Hart, Godleski, & Blakely-McClure, 2014).

In the broader context of the literature on peer victimization, approach responses have generally been linked to more adaptive psychological and social outcomes than avoidance responses (e.g., Erath et al., 2007; Kochenderfer-Ladd, 2004; Machmutow, Perren, Sticca, & Alsaker, 2012; Singh & Bussey, 2010; Sugimura et al., 2014). Most relevant to the current research, existing evidence indicates that the strategies youth use to cope with peer provocation may impact their subsequent risk for victimization (e.g., Kochenderfer-Ladd, 2004). Findings from several qualitative studies have helped illuminate children's and adolescents' own perspectives on what responses are effective in deterring peers' aggression. One investigation demonstrated that children who moved out of the victim classification over the course of 2 years (i.e., between the seventh and ninth grade) were more likely to have talked to a teacher, counselor, caregiver, or tutor about their experiences than youth who remained victims or those had recently become victims (Smith, Talmelli, Cowie, Naylor, & Chauhan, 2004). Another study of 18-year-old former victims revealed that the top three reasons participants gave as to why their patterns of victimization ended were that they received support from school personnel (25%), transitioned to a new school level (23%), or changed the way they coped with aggressive peers (20%; Frisén, Hasselblad, & Holmqvist, 2012).

Other qualitative results, however, suggest that seeking support from a teacher or other adult may not always be an effective coping strategy. In particular, victims in one sample of

fourth- through eighth-grade students reported that authority figures often did not believe their accounts were sincere, or they were unable to effectively help address the problem (Tenenbaum, Varjas, Meyes, & Parris, 2011). Further, some of these youth indicated that their victimization continued or increased in severity after telling an adult because they were perceived as "tattle tales" by their peers. With regard to other coping responses, victims in this study noted that utilizing problem solving strategies, including thinking about how to respond verbally to aggressive peers, deciding who to talk to in order to resolve the situation, and analyzing potential plans to prevent such incidents from happening again, contributed to better outcomes. Another study of fifth- through ninth-grade students who endorsed some exposure to peer victimization revealed that humor was rated by the participants as the most effective response to aggressive peers (i.e., 45% found it helpful), followed by seeking support from an adult at school (i.e., 38% found it helpful); in contrast, cognitive distancing was rated as one of the least effective responses (i.e., 16% found that it made victimization worse; Sulkowski, Bauman, Dinner, Nixon, & Davis, 2014).

Other recently conducted research involving focus groups revealed that elementary, middle, and high school teachers believe that victims should not use cognitive distancing (e.g., ignoring the aggressive behavior) because this response is unlikely to prevent them from being targeted again (Rosen, Scott, & DeOrnellas, 2017). Some teachers believed that humor, or "retaliating with a witty comment," could be effective for coping with victimization (p. 132). However, teachers' perceptions were mixed regarding the utility of adult and friend support seeking, as these strategies were endorsed as both effective and ineffective in the focus groups.

Findings from quantitative studies also provide support for the notion that youth's coping strategies are associated with experiences of victimization. For instance, naturalistic observations

of peer victimization in a classroom setting over consecutive school years revealed that responses encompassing both problem solving and passive coping were associated with de-escalation and resolution of aggressive episodes (Mahady Wilton, Craig, & Pepler, 2000). Another cross-sectional investigation of second- through fourth-grade students indicated that adult support seeking was related to lower levels of peer victimization, and passive coping was associated with higher levels of peer victimization; whereas problem solving increased the likelihood that children would seek adult support, this response was not directly linked to experiences of victimization, nor was cognitive distancing (Kochenderfer-Ladd & Pelletier, 2008). Kochenderfer-Ladd (2004) found that conflict resolution, which is analogous to problem solving, predicted decreases in peer victimization from the fall to the spring semester of one school year among children in kindergarten through fifth grade. Moreover, cognitive distancing predicted subsequent increases in peer victimization, while general support seeking was not prospectively associated with experiences of victimization.

Although not specifically assessed in the context of youth's responses to aggressive peers, perceptions of social support from caregivers, teachers, and friends have been negatively associated with concurrent levels of peer victimization among children and adolescents (Herráiz & Gutiérrez, 2016; Jenkins & Demaray, 2012). Previous investigations have also shown that elementary school-age children who have friends experience lower levels of concurrent victimization (Pellegrini, Bartini, & Brooks, 1999) as well as attenuated risk for victimization over a 1-year period (Hodges, Boivin, Vitaro, Bukowski, 1999).

Still, none of the aforementioned coping strategies have been reliably linked to peer victimization over time. In one study of early adolescents, problem solving, general support seeking, cognitive distancing, and passive coping did not uniquely predict changes in

victimization over a 3-month interval (Spence et al., 2009). After categorizing youth into subgroups, however, those who had never been victimized were found to endorse less frequent use of passive coping than youth who were victimized at either time point or on both occasions. Another investigation of students in the fourth through sixth grades showed that problem solving, general support seeking, and passive coping were not prospectively related to experiences of victimization (Terranova et al., 2010). Moreover, seeking teacher or friend support was not associated with subsequent changes in victimization from the fall to the spring semester in a separate sample of fourth- and fifth-grade students (Visconti & Troop-Gordon, 2010).

Gender Differences in Coping Strategies

It appears that this inconsistent pattern of findings may be explained in part by gender differences in the frequency with which particular coping strategies are employed and in their effectiveness among boys versus girls. Results from a systematic review of peer relationship processes revealed that girls are more likely than boys to endorse connection-oriented or social goals (e.g., having friends, providing support, maintaining relationships, resolving peer problems), whereas boys are more likely than girls to endorse status-oriented goals (e.g., dominance; Rose & Rudolph, 2006). Previous research has shown that in response to peer victimization, girls tend to pretend they are not bothered, walk away, and seek support from caregivers, teachers, and/or friends (Hunter, Boyle, & Warden, 2004; Scrambler, Harris, & Milich, 1998; Sulkowski et al., 2014). Boys, on the other hand, have a propensity to use humor to deal with hostile peers (Kochenderfer-Ladd & Skinner, 2002; Salmivalli, Karhunen, & Lagerspetz, 1996; Sulkowski et al., 2014). Other findings have revealed gender differences in the perceived efficacy of particular coping strategies. Specifically, girls typically report that telling an adult or friend that they were victimized is an effective response to peer victimization; in

contrast, boys are likely to endorse cognitive distancing and humor as effective strategies (Craig, Pepler, & Blais, 2007; Sulkowski et al., 2014).

Indeed, coping strategies appear to have different consequences for boys and girls. In one study of sixth-grade students wherein victims' behavior was rated by their peers, passive coping was perceived as perpetuating victimization for girls only (Salmivalli et al., 1996). In another investigation, "having a friend help" was associated with subsequent decreases in peer victimization over the course of kindergarten for boys only, which the authors suggested may have been accounted for by their exclusive focus on physical and verbal rather than relational forms of victimization (Kochenderfer & Ladd, 1997). Shelley and Craig (2010) found that no coping strategies were effective at reducing victimization over time for boys. Instead, general support seeking was linked to higher concurrent levels of victimization, and passive coping and cognitive distancing predicted increases in peer victimization over a 6-month period. For girls, passive coping and cognitive distancing were linked to higher concurrent levels of victimization, and general support seeking predicted decreases in peer victimization over time. Similarly, cognitive distancing has been associated with subsequent increases in victimization for female victims in the fourth and fifth grade (Visconti & Troop-Gordon, 2010).

Elledge and colleagues (2010) examined the use of coping strategies among elementary and middle school-age youth with and without a history of peer victimization and found that chronically victimized boys who utilized cognitive distancing and humor reported higher concurrent levels of peer victimization. In contrast, cognitive distancing was linked to lower rates of victimization among the overall sample of girls. Regardless of gender, neither adult support seeking nor friend support seeking were related to experiences of victimization. The only other known study to investigate humor as a coping response revealed that self-defeating humor

was related to increases in peer victimization from the fall to the summer terms of 1 academic year for boys and girls in middle school, whereas affiliative humor predicted subsequent decreases in peer victimization over time for boys only (Fox et al., 2015).

These gender differences may be accounted for by social norms within boys' and girls' peer groups. It has been suggested that adaptive humor styles are differentially effective in reducing victimization because overt humor is more highly valued in boys' than in girls' peer groups (Fox et al., 2015). Affiliative humor may help defuse hostile peer interactions and promote positive peer relationships among boys (Fox et al., 2015; Scrambler et al., 1998). Further, adults may expect boys to handle interpersonal conflicts independently due to a cultural expectation for them to be "tough" (Troop-Gordon & Quenette, 2010; Waasdorp & Bradshaw, 2011); boys may therefore be met with disapproval when they ask for assistance or advice. In contrast, seeking social support is more normative in girls' peer groups (Rose & Rudolph, 2006). Taken together with the fact girls tend to maintain closer, less conflictual relationships with teachers as compared to boys (Birch & Ladd, 1998; Hughes, Cavell & Willson, 2001), girls may be better able to utilize adult support seeking in order to reduce peer victimization.

Although gender differences in the effectiveness of problem solving and friend support seeking are not yet clear, these responses are generally considered adaptive forms of coping that directly deal with interpersonal conflict and may have a de-escalating effect on future experiences of victimization (Flanagan et al., 2013; Kochenderfer & Ladd, 1997; Mahady Wilton et al., 2000; Sugimura et al., 2014). In contrast, maladaptive humor styles that are self-deprecating in nature may put both boys and girls at risk for peer victimization because they are excessively disparaging and are thought to reflect underlying emotional neediness and low self-esteem (Fox et al., 2015; Klein & Kuiper, 2006; Martin, Puhlik-Dors, Larsen, Gray, & Weir,

2003). Moreover, avoidance responses involving passive coping and cognitive distancing may also lead to increases in victimization regardless of gender, as they signal vulnerability to the aggressor and can be interpreted as an act of submission suggesting that the victim is unlikely to retaliate (Mahady Wilton et al., 2000; Shelley & Craig, 2010).

Emotion Dysregulation as a Potential Moderator

With the exception of these gender differences, relatively little is currently known regarding what individual factors may attenuate or exacerbate the effects of particular coping strategies on subsequent risk for peer victimization. Of note, research in recent years has highlighted the central role of emotion regulation processes in relation to youth's experiences of victimization (e.g., Cooley & Fite, 2016; Herts, McLaughlin, & Hatzenbuehler, 2012; McLaughlin, Hatzenbuehler, & Hilt, 2009; Rudolph, Troop-Gordon, & Flynn, 2009). In particular, emotion dysregulation – defined as "difficulty modulating emotion experience and expression in response to contextual demands and controlling the influence of emotional arousal on the organization and quality of thoughts, actions, and interactions" (Cole, Michel, & Teti, 1994, p. 85) – has consistently been shown to predict increases in peer victimization over time in both early and middle childhood (Bierman et al., 2015; Giesbrecht et al., 2011; Godleski et al., 2015; Hanish et al., 2004; Mahady Wilton et al., 2000; Rosen, Milich, & Harris, 2012; Spence et al., 2009). Perry, Williard, and Perry (1990) examined peers' perceptions of children's responses to aggressive peers and found that victims were likely to reinforce their aggressors with visible signs of emotional distress, thereby perpetuating their hostile interactions. Correspondingly, teachers have reported that students' strong emotional reactions exacerbate their future risk of peer victimization, with one stating: "The more they react, the more they are sought out to be picked on" (Rosen et al., 2017, p. 133).

Indeed, experiences of victimization engender a range of negative emotions, including anger, sadness, fear, and embarrassment (Camodeca & Goossens, 2005; Mahady Wilton et al., 2000; Morrow, Hubbard, Barhight, & Thomson, 2014; Kochenderfer-Ladd, 2004). Such reactions are even more problematic in that youth tend to show a preference for peers who exhibit fewer negative emotions (Hay, Payne, & Chadwick, 2004). Thus, poorly modulated emotional displays may aggravate others in the peer group and exacerbate the likelihood that youth will be victimized again in the future (Rosen et al., 2012).

It is important to note, however, that emotions organize human functioning and serve specific functions within the social environment, allowing us to evaluate and respond to the changing circumstances we encounter (Cole & Hall, 2008; Cole et al., 1994). According to the functionalist perspective, discrete emotions correspond to specific action tendencies and goals (Campos, Campos, & Barrett, 1989). For example, anger provides energy and motivation to accomplish one's goals when obstacles are encountered (Cole et al., 1994). Sadness, on the other hand, may prompt withdrawal or serve as a social signal that helps elicit support from others (Campos et al., 1989). Considering that each emotion serves distinct functions within social contexts, it is important to examine anger and sadness dysregulation independently than overt, undercontrolled displays of emotion more broadly (Zeman, Shipman, Penza-Clyve, 2001).

Yet, comparatively less is known regarding how the regulation of specific emotions is linked to youth's experiences of victimization. One recent cross-sectional study of elementary school-age children demonstrated that both anger and sadness dysregulation were positively related to peer victimization regardless of gender (Morelen, Southam-Gerow, & Zeman, 2016). Another short-term longitudinal study found that whereas displays of both anger and sadness were associated with higher initial levels of victimization during early childhood, only anger was

prospectively associated with peer victimization over the course of an academic year (Hanish et al., 2004). Similarly, Spence and colleagues (2009) evaluated whether dysregulated displays of anger and sadness were related to experiences of victimization over a 3-month period during middle childhood. Results revealed that girls who exhibited more anger dysregulation and boys who exhibited more sadness dysregulation reported higher concurrent levels of victimization, but only anger dysregulation was linked to higher levels of peer victimization over time regardless of gender. Altogether, these findings suggest that both anger and sadness dysregulation increase youth's risk for concurrent victimization, while anger dysregulation uniquely predicts youth's subsequent experiences of victimization.

Moreover, it has been suggested that the effectiveness of a particular response to peer victimization may depend on children's ability to regulate their emotions (Kochenderfer-Ladd, 2004; Mahady Wilton et al., 2000; Spence et al., 2009; Waasdorp & Bradshaw, 2011). It is likely that dysregulated emotional reactions undermine youth's attempts to cope with interpersonal conflict, regardless of the strategy employed. For example, Rosen and colleagues (2012) asserted that emotional distress may override children's ability to generate effective problem-solving responses to peer provocation. Intense negative emotions may interfere with victims' attempts to implement others' advice (Sugimura et al., 2014); emotionally dysregulated youth may also seek support in a manner that is ineffective (e.g., talking to a teacher directly in front of the aggressor) and utilize maladaptive (i.e., self-disparaging; Fox et al., 2015) forms of humor, which inadvertently leads to higher levels of peer victimization. Undercontrolled displays of anger or sadness among youth who try to use passive coping or cognitive distancing may signal greater vulnerability to peers, and aggressors likely find their responses especially rewarding (Mahady Wilton et al., 2000). Conversely, youth who are better able to manage their emotional

expressions may be more adept at responding effectively during hostile interactions with peers and less likely to experience subsequent victimization (Kochenderfer-Ladd, 2004).

Current Study

The primary goal of the current longitudinal study was therefore to examine the interactive influence of six common coping strategies (i.e., adult support seeking, friend support seeking, problem solving, humor, passive coping, and cognitive distancing) and emotion (i.e., anger and sadness) dysregulation on concurrent levels and subsequent trajectories of peer victimization over a 2-year period during middle childhood with attention to potential gender differences. This developmental period was selected for two main reasons. First, previous research suggests that by the middle childhood years, youth have acquired basic emotion management skills (Saarni, 1999), and emotion regulation processes and coping tendencies have become relatively stable (Cole et al., 1994; Losoya, Eisenberg, & Fabes, 1998; Terranova et al., 2010). Therefore, it can be assumed that the responses of students in the second and third grades will reflect consistent patterns of coping and emotion dysregulation. Second, forming and sustaining appropriate peer interactions and relationships represents one of the key developmental tasks during middle childhood (Sroufe, Carlson, & Shulman, 1993). Given that rates of peer victimization tend to decrease during the final years of elementary school (Reavis et al., 2010; Rudolph et al., 2011) prior to peaking during the transition to middle school (Nylund et al., 2007; Pellegrini & Long, 2002; Williford, Brisson, Bender, Jenson, Forrest-Bank, 2011), this age range provides an ideal window for interventions to equip youth with effective methods of coping with interpersonal stress in order to reduce their subsequent risk for maladjustment and help them successfully navigate the reorganization of peer groups during adolescence (Pellegrini, 2002). Gaining a better understanding of what factors impact the prospective associations

between common coping strategies and peer victimization will help identify at-risk youth and aid in the development of such interventions.

Moreover, methodological limitations in the extant literature have precluded firm conclusions regarding how particular coping strategies influence youth's subsequent risk for peer victimization. Several previous studies (Kochenderfer & Ladd, 1997; Salmivalli et al., 1996; Spence et al., 2009) have relied on arbitrary cutoffs to categorize youth into subtypes of victims, which may lead to a substantial loss of information and power and yield misleading results (MacCallum, Zhang, Preacher, & Rucker, 2002; Royston, Altman, & Sauerbrei, 2006). Interpretations of prior longitudinal findings are also complicated by the fact that none of the aforementioned investigations (Fox et al., 2015; Kochenderfer & Ladd, 1997; Kochenderfer-Ladd, 2004; Shelley & Craig, 2010; Spence et al., 2009; Terranova et al., 2010; Visconti & Troop-Gordon, 2010) have evaluated relations among coping strategies and peer victimization across more than two waves of data; this is a significant limitation, as two-wave studies cannot simultaneously distinguish true change from measurement error and describe individual trajectories of change (Hoffman, 2015; Singer & Willett, 2003). Thus, the current investigation employed a three-wave design in order to more accurately evaluate coping strategies and emotion dysregulation as interindividual predictors of intraindividual change in peer victimization over time.

Based on available theory and evidence, it was hypothesized that: (a) on average, there would be decreases in peer victimization across a 2-year period, and (b) significant variability would be observed in children's initial rate of peer victimization and in their individual trajectories of over time. Further, it was anticipated that at high, as compared to low, levels of emotion dysregulation: (c) adult support seeking would be unrelated to concurrent levels and less

strongly associated with subsequent decreases in peer victimization among girls, (d) adult support seeking would be associated with higher concurrent levels and more stable patterns of peer victimization over time among boys, (e) friend support seeking and problem solving would be unrelated to concurrent levels and less strongly associated with subsequent decreases in peer victimization among boys and girls, and (f) humor, passive coping, and cognitive distancing would be associated with higher concurrent levels and more stable patterns of peer victimization over time among boys and girls. Although specific patterns of moderation according to discrete emotions were not hypothesized, it was predicted that: (g) anger dysregulation would interact with coping strategies to influence concurrent levels and subsequent trajectories of peer victimization, and (h) sadness dysregulation would only interact with coping strategies to influence concurrent levels of peer victimization.

Method

Participants

Participants included 287 children who were enrolled in the second (n = 168) and third (n = 119) grades at an elementary school located in a small, rural Midwestern community in the United States. Data collection occurred as part of a larger project examining the impact of peer victimization and aggression on youth's psychological and social adjustment. All incoming students in the second and third grades not receiving special education services were recruited for participation in the current study during the summer of 2015 (n = 264). Recruitment was conducted using an electronic consent form that was included in the paperwork that caregivers completed in order to enroll their child in the upcoming school year; more specifically, caregivers logged into an online system using a unique identification number that was issued by the school and were asked to indicate their voluntary participation decision, check a box

confirming that they were the child's legal guardian, and provide an electronic signature. Overall, 99% of families completed the consent form (n = 262), and permission was obtained for 83% of the eligible students to participate in the study during the fall of 2015 (n = 218). Similar methods were followed during the summer of 2016 (i.e., caregivers provided informed consent for their child's ongoing participation in the study), and incoming second and third grade students who had not participated in data collection the year before were also recruited. With regard to this new cohort of eligible students (n = 173), 82% of families completed the consent form (n = 142), and permission was obtained for 66% of the children to participate in the study during the fall of 2016 (n = 115); note that students from this new cohort contributed data to the first two waves (i.e., Times 1 and 2) of the study. Finally, recruitment occurred again during the summer of 2017, but was focused only on students who had previously participated in the study.

At Time 1, data were missing for two children who had moved out of the school district, eight children who declined assent, four children who were absent during data collection, eight children who provided verbal assent but did not complete measures of interest in the current study, and 24 children whose second-grade classrooms were not able to be surveyed due to logistical constraints; accordingly, these students were excluded from subsequent analyses. At Time 2, 217 out of the remaining 287 eligible students participated in the study (76%). Data were missing for 23 children who had moved out of the school district, 21 children whose caregivers declined consent, 15 children whose caregivers did not complete informed consent, four children who declined assent, and seven children who were absent during data collection. At Time 3, 156 students participated in the study (54%). Data were missing for 24 children who had moved out of the school district, 14 children whose caregivers declined consent, one child whose caregivers did not complete informed consent, two children who declined assent, one child who had begun

special education services, and seven students who participated in a targeted cognitive behavioral intervention during the previous school year; moreover, there was also planned missingness for the 82 children who were recruited in the second cohort. A series of independent samples *t*-tests indicated that the 24% of participants with missing data at Time 2 and the 46% of participants with missing data at Time 3 did not differ from participants with complete data on any study variable at Time 1, suggesting a representative longitudinal sample; accordingly, these participants were retained, and missing data were accounted for in subsequent analyses.

The final sample consisted of 154 boys and 133 girls (N = 287), who ranged from 6 to 9 years of age at Time 1 (M = 7.69, SD = 0.67). School records indicated that the racial composition of students attending the elementary school was predominantly Caucasian, with less than 10% identifying as a racial or ethnic minority (4% African American, 2% Asian, 2% American Indian/Alaska Native, 1% Hispanic/Latino). Although socioeconomic data were not available for individual participants, census data showed that the lower middle-class community in which the school was located had an average per capita income of $27,168, with 10.1% of households living below the federal poverty line (U.S. Census Bureau, 2016). According to school records, approximately 40% of all students were eligible for free or reduced-price lunch.

Measures

Coping Strategies. Children's coping strategies were assessed at Time 1 using a modified version of the Self-Report Coping Scale (SRCS; Causey & Dubow, 1992), which was adapted by Kochenderfer-Ladd and Pelletier (2008). The modified SRCS consists of six subscales. Specifically, four items measure adult support seeking (e.g., "Tell the teacher what happened"), two items measure friend support seeking (e.g., "Tell a friend what happened), three items measure problem solving (e.g., "Try to think of ways to stop it"), six items measure

passive coping (e.g., "Blame yourself for doing something wrong"), and four items measure cognitive distancing (e.g., "Act like nothing happened"); note that the five-item revenge seeking subscale (e.g., "Hurt the kid who was mean to you") was not included in this investigation due to its conceptual overlap with the measure of anger dysregulation (e.g., "I attack whatever it is that makes me mad"). However, the current study also included the six-item humor subscale (e.g., "Make a joke to diffuse the situation") developed by Sugimura and colleagues (2014). Children were asked to rate the frequency with which they employ each of the coping strategies when another child is mean to them on a three-point Likert scale (1 = *Never*, 2 =*Sometimes*, 3 = *Most of the Time*). The modified SRCS has demonstrated good psychometric properties, including internal consistency and test-retest reliability over a 6-month interval, along with evidence for criterion validity in previous samples of elementary school-age youth (Kochenderfer-Ladd & Pelletier, 2008; Sugimura et al., 2014; Visconti, Sechler, & Kochenderfer-Ladd, 2013; Visconti & Troop-Gordon, 2010). In the current study, measurement models were estimated to evaluate the hypothesized six-factor structure of these 25 items, measurement invariance across gender, and reliability; individual factor scores were then predicted and used in subsequent analyses, with higher scores indicating more frequent use of each particular coping strategy.

Emotion Dysregulation. Children's self-reports of emotion dysregulation were assessed at Time 1 using the Children's Emotion Management Scales (CEMS; Zeman et al., 2001) for Anger and Sadness. The CEMS are comprised of three subscales that measure both adaptive and maladaptive patterns of emotion regulation. The current study focuses on the Dysregulation subscales for each measure, which consist of three items that assess overt, under-controlled expressions of emotion. Children were asked to select the response that best describes their behavior when they are feeling mad (e.g., "I do things like slam doors when I'm mad") and sad

(e.g., "I cry and carry on when I'm sad") on a three-point Likert scale (1 = *Hardly-Ever*, 2 = *Sometimes*, 3 = *Often*). The Dysregulation subscales of the CEMS have demonstrated good psychometric properties, including internal consistency and test-retest reliability over a 2-week interval, along with evidence for construct, concurrent, and discriminant validity in previous samples of elementary school-age youth (Zeman et al., 2001; Zeman, Shipman, & Suveg, 2002). In the current study, measurement models were estimated to evaluate the hypothesized two-factor structure of these six items, measurement invariance across gender, and reliability; individual factor scores were then predicted and used in subsequent analyses, with higher scores indicating greater anger and sadness dysregulation.

Peer Victimization. Experiences of peer victimization were assessed using self-reports at each time point. Children completed a modified version of the Victimization of Self (VS) scale from the Peer Experiences Questionnaire (Vernberg, Jacobs, & Hershberger, 1999), which has previously been adapted to include language appropriate for children reading at or below a third-grade level (Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004). The VS scale consists of four items that measure physical victimization (e.g., "A kid hit, kicked, or pushed me in a mean way") and five items that measure relational victimization (e.g., "A kid told lies about me so other kids wouldn't like me"). Children were asked to rate the frequency of such occurrences since the beginning of the school year on a five-point Likert scale (1 = *Never*, 2 = *Once or Twice*, 3 = *A Few Times*, 4 = *About Once a Week*, and 5 = *Several Times a Week*). The modified VS scale has demonstrated good psychometric properties, including internal consistency and test-retest reliability over a 1-year interval, along with evidence for criterion validity in previous samples of elementary school-age youth (Dill et al., 2014; Williford, Fite, & Cooley, 2015). In the current study, measurement models were estimated to evaluate the hypothesized one-factor

structure of these nine items, measurement invariance across gender and time, and reliability; individual factor scores were then predicted and used in subsequent analyses, with higher scores indicating more frequent experiences of peer victimization.

Procedures

The larger project on which the current study is based was approved by the university's Institutional Review Board and school administrators. Child-reported data were collected approximately 12 weeks after the start of the fall semester of 2015. Data collection for students in the third grade occurred through class-wide group administration. Children were first assured of the confidential nature of their responses and asked to provide verbal assent prior to their participation. A research assistant then read standardized instructions to the students, provided a description of the response scales, and read each questionnaire item aloud. Trained research assistants circulated through the classroom to answer questions and assist children who had difficulty understanding particular items. No teachers or nonparticipating students were present in the rooms in order to maintain confidentiality and facilitate accurate responding. Similar procedures were followed for students in the second grade, with the exception that they were randomly divided into smaller groups of three to five in an effort to minimize distractions during the testing sessions. The aforementioned procedures were repeated again approximately 1 year later during the fall semester of 2016 as well as approximately 2 years later during the fall semester of 2017. Children received a small prize (i.e., a pencil) for participating in the study at each time point.

Data Analytic Plan

Measurement models. Measurement models were estimated within M*plus* statistical software (Version 7.4; Muthén & Muthén, 1998–2015) to evaluate the hypothesized factor

structure for each of the study constructs. Given the ordered categorical nature of the observed indicators for each measure (i.e., three- or five-point Likert scale), item factor analyses were conducted first to assess dimensionality and absolute global model fit using weighted least squares mean- and variance-adjusted (WLSMV) estimation with the THETA parameterization, which uses a cumulative probit link and a conditional multinomial response distribution. All models were identified using the reference group method by setting latent factor means to 0 and latent factor variances to 1, such that all item thresholds and factor loadings were freely estimated. Model fit (Brown, 2006; Hu & Bentler, 1999) was evaluated using the obtained χ^2 (in which non-significance is desirable for close fit), Comparative Fit Index (CFI; in which values higher than .95 are desirable for close fit), and the Root Mean Square Error of Approximation (RMSEA; in which values lower than .06 are desirable for close fit). Nested model comparisons were conducted using the DIFFTEST procedure in M*plus* (Muthén & Muthén, 1998–2015).

Note that dimensionality and absolute global fit were assessed using WLSMV because this approach uses a covariance matrix of probits and allows for the examination of many factors simultaneously (Hoffman, 2016a). After doing so, however, item response theory analyses were conducted to evaluate measurement invariance and reliability – and to predict factor scores – using marginal maximum likelihood (ML) estimation with numeric integration, which includes a cumulative logit link and multinomial conditional response distribution. Although Marginal ML is the current gold standard of estimation, no valid measures of absolute global fit are available using this approach, and its computationally intensive process limits the number of factors that can be estimated simultaneously (Hoffman, 2016a). Therefore, measurement invariance (Millsap, 2011) was tested across boys (n = 154) and girls (n = 133) for each factor separately with a multiple-group approach (treating boys as the reference group) using mixture models with

known class membership in M*plus* (Muthén & Muthén, 1998–2015). Nested model comparisons were conducted using likelihood ratio tests (LRTs) to determine whether adding model constraints resulted in a significant decrement in fit. First, a configural invariance model was estimated by setting the factor variances to 1 and the means to 0 for boys and girls and allowing the factor loadings and item thresholds to be freely estimated in both groups. Next, metric invariance was tested by constraining all loadings to be equal across gender and freeing the factor variances for the girls group. Scalar invariance was subsequently tested by constraining the thresholds for the items to be equal across gender and freeing the factor means in the girls group. After measurement invariance across gender was established, a similar process was followed to test for measurement invariance across time for peer victimization (Meredith, 1993).

Preliminary analyses. After ensuring measurement invariance, factor scores for each variable at each occasion were predicted in M*plus* as the mean of the posterior distribution using the Expected A Posteriori (EAP) method (Muraki & Engelhard Jr., 1985; Muthén & Muthén, 1998–2015). These factor scores were then outputted to SPSS statistical software (Version 24; IBM Corp., 2016), where preliminary analyses were conducted. That is, correlations were estimated between the factor scores and overall mean scores – created by averaging across the items for each variable – to determine the percentage of shared variance between these two approaches. Descriptive statistics and correlations among study variables (using factor scores) were subsequently estimated to examine bivariate associations.

Multilevel models. Data were then outputted to SAS University Edition (SAS Institute Inc., 2014), and a series of multilevel models were estimated to examine the interactive effects of coping strategies and emotion dysregulation on concurrent levels and subsequent trajectories of peer victimization. Given that students were in different classrooms each year of the study,

two-level models in which occasions at level 1 were nested within crossed random effects for students and classrooms at level 2 were estimated using ML (Hoffman, 2015). Time was represented in years and centered such that the intercept corresponded to the first data collection occasion (i.e., Time 1). The significance of fixed effects was assessed by their individual Wald test *p*-values using Satterthwaite denominator degrees of freedom, whereas the significance of random effects was tested with likelihood ratio tests (LRTs). Effect sizes were measured by the pseudo-R^2 values for the proportion reduction in each variance component as well as total R^2 (i.e., the squared correlation between the actual outcomes and the outcomes predicted by fixed effects). Full-information ML estimation was used to accommodate the missing data at Time 2 (24%) and Time 3 (46%), as this approach is more efficient and provides less biased parameter estimates than other methods of handling missing data, including listwise and pairwise deletion (Arkbuckle, 1996). Further, this approach has been shown to perform well with 50% or more missing data (Graham, 2009; Newman, 2003).

A hierarchical approach was employed in building models. Starting from an empty means model, a random intercept variance for children was added to the model, followed by a random intercept variance for classrooms. A fixed linear effect of time was then added to the model to determine if there were significant changes in peer victimization across the 2-year period. Next, a random linear slope variance was added to the model to assess for individual differences in the linear rate of change over time.

The control variables (i.e., gender and grade level) along with the observed factor scores representing coping strategies and emotion dysregulation as well as their interactions with time were subsequently added to the model as time-invariant predictors of the intercept and linear time slope of peer victimization. Next, product terms between each coping strategy and emotion

dysregulation as well as their interactions with time were added to the main effects model; note that this step was conducted separately for anger dysregulation and sadness dysregulation. Finally, product terms representing coping strategies, emotion dysregulation, and gender (e.g., problem solving by anger dysregulation by gender) were individually added to the model along with their interactions with time and the embedded lower-order interactions (e.g., problem solving by gender, anger dysregulation by gender) to evaluate potential gender differences in the moderating effects of anger and sadness dysregulation.

All observed factor scores for the predictors (i.e., coping strategies and emotion dysregulation) were standardized prior to estimating multilevel models to aid in the interpretation of their effects. Gender and grade level were also centered such that boys and second-grade students were treated as the reference group, respectively. Significant interactions were interpreted by calculating regions of significance using the fixed effect estimates and their associated covariance matrix (Bauer & Curran, 2005). Assuming that the predictors (i.e., coping strategies and emotion dysregulation) had reliabilities greater than or equal to .80, the current study involving 287 participants was able to detect two- and three-way interactions with moderate to large effect sizes with power of .80 (Aiken & West, 1991; Cohen, 1988). Considering that a sample size of 392 participants would be required to detect a two-way interaction with a small effect size with power of .80 and assuming no measurement error of the predictors, the present investigation was likely to be underpowered to detect small interaction effects.

Results

Measurement Models

Coping strategies. An item factor analysis was initially conducted using WLSMV to evaluate the dimensionality of 25 items assessing coping strategies. A six-factor (adult support seeking, friend support seeking, problem solving, humor, passive coping, cognitive distancing) model was posited to account for the pattern of covariance across these items, which resulted in a close fit to the data, χ^2 (261) = 375.30, $p < .001$, CFI = .95, RMSEA = .04 [90% C.I.: .03, .05]. Next, a model in which the adult support seeking and friend support seeking items were combined into a general support seeking factor was estimated; however, this five-factor model fit significantly worse than the previous model, $\Delta \chi^2$ (4) = 22.25, $p < .001$. Potential sources of misfit were then examined for the six-factor model using the residual correlation matrix, but all observed correlations were weak in magnitude, and no interpretable associations emerged. Thus, an item response theory analysis was conducted separately for each of the factors using Marginal ML estimation in order to evaluate measurement invariance across gender and predict factor scores.

***Adult support seeking*.** A configural invariance model for adult support seeking was initially estimated by setting the factor variances to 1 and the means to 0 for boys and girls and allowing the factor loadings and item thresholds to be freely estimated in both groups. Next, metric invariance was tested by constraining the loadings to be equal across gender and freeing the factor variance for the girls group. The metric invariance model did not result in a significant decrease in fit relative to the configural invariance model, $-2\Delta LL(3) = 2.55$, $p = .47$. Scalar invariance was subsequently tested by constraining the thresholds for the items to be equal across gender and freeing the factor means in the girls group. The scalar invariance model did not fit

significantly worse than the metric invariance model, –2ΔLL(7) = 9.13, p = .24. Final model parameters are provided in Appendix B (see Table B1). As shown, each item had a significant factor loading, with standardized estimates ranging from .70 to .89 (R^2 values from .49 to .80). Test information suggests that this factor was adequately reliable for children with theta values ranging from −2.30 to 1.10 standard deviations (*SD*), as shown in Appendix C (see Figure C1a).

Friend support seeking. A configural invariance model for friend support seeking was initially estimated. Due to the fact that the friend support seeking factor was comprised of only two items, however, the metric invariance model was not nested within the configural invariance model and change in fit could not be assessed. That is, the degrees of freedom were equal between the configural and metric invariance models because one constraint was added along with one new parameter. A scalar invariance model was subsequently estimated, which did not fit significantly worse than the metric invariance model, –2ΔLL(3) = 0.64, p = .89. Final model parameters are provided in Appendix B (see Table B2). As shown, both items had a significant factor loading, with standardized estimates of .74 (R^2 values of .55). Test information suggests that this factor was adequately reliable for children with theta values ranging from –1.35 to 1.30 *SD* (see Appendix C, Figure C1b).

Problem solving. A configural invariance model for problem solving was initially estimated. Next, a metric invariance model was estimated, which did not result in a significant decrease in fit relative to the configural invariance model, –2ΔLL(2) = 2.44, p = .29. A scalar invariance model was subsequently estimated, which did not fit significantly worse than the metric invariance model, –2ΔLL(5) = 5.77, p = .33. Final model parameters are provided in Appendix B (see Table B3). As shown, each item had a significant factor loading, with

standardized estimates ranging from .53 to .77 (R^2 values from .28 to .59). Test information suggests that this factor was adequately reliable for children with theta values ranging from –1.45 to 1.30 *SD* (see Appendix C, Figure C2a).

Humor. A configural invariance model for humor was initially estimated. Next, a metric invariance model was estimated, which did not result in a significant decrease in fit relative to the configural invariance model, $-2\Delta LL(5) = 6.27$, $p = .28$. A scalar invariance was subsequently estimated, which did not fit significantly worse than the metric invariance model, $-2\Delta LL(11) = 16.08$, $p = .14$. Final model parameters are provided in Appendix B (see Table B4). As shown, each item had a significant factor loading, with standardized estimates ranging from .53 to .77 (R^2 values from .28 to .60). Test information suggests that this factor was adequately reliable for children with theta values ranging from –0.85 to 3.00 *SD* (see Appendix C, Figure C2b).

Passive coping. A configural invariance model for passive coping was initially estimated. Next, a metric invariance model was estimated, which did not result in a significant decrease in fit relative to the configural invariance model, $-2\Delta LL(5) = 4.47$, $p = .48$. A scalar invariance model was subsequently estimated, which fit significantly worse than the metric invariance model, $-2\Delta LL(11) = 29.80$, $p = .002$. Examination of univariate distributions suggested that the thresholds for item 15 were the largest source of misfit and should be freed. After doing so, the partial scalar invariance model did not fit significantly worse than the metric invariance model, $-2\Delta LL(9) = 12.63$, $p = .18$, indicating that the thresholds for item 15 were more difficult for boys. Final model parameters are provided in Appendix B (see Tables B5 and B6). As shown, each item had a significant factor loading among boys and girls, with standardized estimates ranging from .29 to .72 (R^2 values from .09 to .52). Test information suggests that this factor was

adequately reliable for boys with theta values ranging from –0.40 to 3.00 and girls with theta values ranging from 0.10 to 2.50 *SD* (see Appendix C, Figure C3a).

***Cognitive distancing*.** A configural invariance model for cognitive distancing was initially estimated. Next, a metric invariance model was estimated, which did not result in a significant decrease in fit relative to the configural invariance model, $-2\Delta LL(3) = 2.19$, $p = .53$. A scalar invariance was subsequently estimated, which fit significantly worse than the metric invariance model, $-2\Delta LL(7) = 20.80$, $p = .004$. Examination of univariate distributions suggested that the thresholds for item 23 were the largest source of misfit and should be freed. After doing so, the partial scalar invariance model still fit significantly worse than the metric invariance model, $-2\Delta LL(5) = 12.37$, $p = .03$. The univariate distributions suggested that the thresholds for item 13 were the largest remaining source of misfit and should be freed. After doing so, the partial scalar invariance model did not fit significantly worse than the metric invariance model, $-2\Delta LL(3) = 6.61$, $p = .09$. These results indicated that the first threshold for items 23 and 15 was more difficult for boys, whereas the second threshold was more difficult for girls. Final model parameters are provided in Appendix B (see Table B7). As shown, each item had a significant factor loading among boys and girls, with standardized estimates ranging from .48 to .65 (R^2 values from .24 to .42). Test information suggests that this factor was adequately reliable for boys with theta values ranging from –0.85 to 2.05 and girls with theta values ranging from –1.40 to 2.60 *SD* (see Appendix C, Figure C3b).

Emotion dysregulation. An item factor analysis was initially conducted using WLSMV to evaluate the dimensionality of six items assessing emotion dysregulation. A two-factor (anger and sadness dysregulation) model was posited to account for the pattern of covariance across these items. Note that each factor was just-identified, and the hypothesis of exact fit for the

overall model was not rejected, χ^2 (8) = 7.81, p = .45, CFI = 1.00, RMSEA = .00 [90% C.I.: .00, .07]. Next, a one-factor model was estimated, which fit significantly worse than the previous model, $\Delta\ \chi^2$ (1) = 18.18, p < .001. Potential sources of misfit were then examined for the two-factor model using the residual correlation matrix, but all observed correlations were weak in magnitude, and no interpretable associations emerged. Thus, an item response theory analysis was conducted separately for each of the factors using Marginal ML estimation in order to evaluate measurement invariance across gender and predict factor scores.

***Anger dysregulation*.** A configural invariance model for anger dysregulation was initially estimated. Next, a metric invariance model was estimated, which did not result in a significant decrease in fit relative to the configural invariance model, –2ΔLL(2) = 2.13, p = .34. A scalar invariance model was subsequently estimated, which did not fit significantly worse than the metric invariance model, –2ΔLL(5) = 3.76, p = .59. Final model parameters are provided in Appendix B (see Table B8). As shown, each item had a significant factor loading, with standardized estimates ranging from .73 to .80 (R^2 values from .53 to .64). Test information suggests that this factor was adequately reliable for children with theta values ranging from –0.35 to 2.45 *SD* (see Appendix C, Figure C4a).

***Sadness dysregulation*.** A configural invariance model for sadness dysregulation was initially estimated. Next, a metric invariance model was estimated, which did not result in a significant decrease in fit relative to the configural invariance model, –2ΔLL(2) = 2.21, p = .33. A scalar invariance was subsequently estimated, which did not fit significantly worse than the metric invariance model, –2ΔLL(5) = 6.06, p = .30. Final model parameters are provided in Appendix B (see Table B9). As shown, each item had a significant factor loading, with

standardized estimates ranging from .63 to .74 (R^2 values from .40 to .55). Test information suggests that this factor was adequately reliable for children with theta values ranging from –0.50 to 2.35 *SD* (see Appendix C, Figure C4b).

Peer victimization. An item factor analysis was initially conducted using WLSMV to evaluate the dimensionality of nine items assessing peer victimization at Time 1. Although a one-factor model was posited to account for the pattern of covariance across these items, a two-factor (physical and relational victimization) model was estimated first, which resulted in a close fit to the data, χ^2 (26) = 46.41, p = .008, CFI = .99, RMSEA = .05 [90% C.I.: .03, .08]. Next, a one-factor model was estimated, which did not fit significantly worse than the previous model, $\Delta\chi^2$ (1) = 3.31, p = .07, and also provided a close fit to the data, χ^2 (27) = 49.66, p = .005, CFI = .99, RMSEA = .05 [90% C.I.: .03, .08]. Potential sources of misfit were then examined for the one-factor model using the residual correlation matrix, but all observed correlations were weak in magnitude, and no interpretable associations emerged. Thus, an item response theory analysis was conducted for this factor using Marginal ML estimation in order to evaluate measurement invariance across gender and time and predict factor scores.

A configural invariance model for Time 1 peer victimization was initially estimated. Next, a metric invariance model was estimated, which did not result in a significant decrease in fit relative to the configural invariance model, $-2\Delta LL(8) = 15.22$, p = .06. A scalar invariance model was subsequently estimated, which fit significantly worse than the metric invariance model, $-2\Delta LL(35) = 70.37$, $p < .001$. Examination of univariate distributions suggested that the thresholds for item 6 were the largest source of misfit and should be freed. After doing so, the partial scalar invariance model still fit significantly worse than the metric invariance model,

–2ΔLL(31) = 57.53, p = .003. The univariate distributions suggested that the thresholds for item 5 were the largest remaining source of misfit and should be freed. After doing so, the partial scalar invariance model still fit significantly worse than the metric invariance model, –2ΔLL(27) = 43.30, p = .02. The univariate distributions suggested that the thresholds for item 8 were the largest remaining source of misfit and should be freed. After doing so, the partial scalar invariance model did not fit significantly worse than the metric invariance model, –2ΔLL(23) = 33.96, p = .07. These results indicated that the thresholds for items 5 and 6 were more difficult for boys, whereas the thresholds for item 8 were more difficult for girls.

Holding these constraints across gender, a longitudinal configural invariance model was estimated by setting the factor variances to 1 and the means to 0 at each occasion and allowing the factor loadings and item thresholds to be freely estimated across time. Next, metric invariance was tested by constraining the loadings to be equal across time and freeing the factor variance at Time 2 and Time 3. The metric invariance model did not result in a significant decrease in fit relative to the configural invariance model, –2ΔLL(16) = 15.42, p = .49. Scalar invariance was subsequently tested by constraining the thresholds for the items to be equal across time and freeing the factor means at Time 2 and Time 3. The scalar invariance model fit significantly worse than the metric invariance model, –2ΔLL(93) = 148.30, p < .001. Examination of univariate distributions suggested that the thresholds for item 7 were the largest source of misfit and should be freed across time. After doing so, the partial scalar invariance model still fit significantly worse than the metric invariance model, –2ΔLL(85) = 127.93, p = .002. The univariate distributions suggested that the thresholds for item 1 were the largest remaining source of misfit and should be freed across time. After doing so, the partial scalar invariance model still fit significantly worse than the metric invariance model, –2ΔLL(77) =

108.53, $p = .01$. The univariate distributions suggested that the thresholds for item 3 were the largest remaining source of misfit and should be freed across time. After doing so, the partial scalar invariance model did not fit significantly worse than the metric invariance model, $-2\Delta LL(69) = 86.95$, $p = .07$. These results indicated that the thresholds for items 1, 7, and 8 generally became more difficult over time; thus, it appears that some experiences of physical (e.g., being hit, kicked or pushed; being grabbed, held, or touched in a way the child didn't like) and relational victimization (e.g., having rumors spread about the child so other kids wouldn't like him or her) become increasingly less common across the late elementary school years.

Final model parameters are provided in Appendix B (see Tables B10 through B15). As shown, each item had a significant factor loading among boys and girls across time, with standardized estimates ranging from .67 to .85 (R^2 values from .45 to .73). Test information suggests that this factor was adequately reliable: a) at Time 1 for boys with theta values ranging from –1.25 to 3.00 *SD* and girls with theta values ranging from –1.40 to 3.00 *SD* (see Appendix C, Figure C5a), b) at Time 2 for boys with theta values ranging from –1.30 to 3.00 *SD* and girls with theta values ranging from –1.40 to 3.00 *SD* (see Appendix C, Figure C5b), and c) at Time 3 for boys with theta values ranging from –1.25 to 3.00 *SD* and girls with theta values ranging from –1.55 to 2.35 *SD* (see Appendix C, Figure C6).

Preliminary Analyses

After factor scores were predicted according to the final model for each factor within M*plus* statistical software, preliminary analyses were conducted to describe the sample within SPSS statistical software. Correlations between factor scores and mean scores – created by averaging across the items for each variable – are presented in Appendix B (see Table B16). As shown, these scores were strongly positively associated with each other, sharing between 77%

and 98% of their variance. Descriptive statistics and correlations among study variables (using factor scores) are presented in Table 1. With regard to the control variables, boys exhibited higher levels of anger dysregulation and peer victimization at Times 1 and 2, girls exhibited higher levels of friend support seeking and problem solving, and students in the second grade exhibited higher levels of peer victimization at Time 1. Note that all six coping strategies were positively associated with each other, although the strength of the correlations varied from weak to strong. Anger and sadness dysregulation were also moderately positively associated with each other. Further, experiences of peer victimization were strongly positively associated across each wave of data. Of note, 79.4% of children reported having experienced at least one incident of peer victimization since the beginning of the school year at Time 1.

Multilevel Models

Trajectories of peer victimization. Empty means, random intercept models were first estimated within SAS University Edition to partition the variance in peer victimization over time across levels. Results indicated that the addition of a level-2 random intercept variance for children significantly improved model fit as compared to a single-level model, $-2\Delta LL(\sim 1) = 372.9$, $p < .001$. Further, the subsequent inclusion of a level-2 random intercept variance for classrooms also significantly improved model fit, $-2\Delta LL(\sim 1) = 160.0$, $p < .001$. Estimates (i.e., proportion of variance component / total variance) revealed that 68% of the total variation in peer victimization over time was between persons, 22% was within persons, and 10% was between classrooms. A fixed linear effect of time was then added to the model, which indicated that there were significant decreases in peer victimization across the 2-year period, $b = -.30$, $SE = .04$, $p < .001$ (see Figure 1); this effect accounted for 2% of the level-1 residual variance. Finally, a random linear slope variance was added to the model, but this resulted in a

non-positive definite G matrix, suggesting that there were not individual differences in the linear rate of change. Thus, this effect was removed, and analyses proceeded using a random intercept, fixed linear slope model.

Main effects model. The control, coping strategy, and emotion dysregulation variables as well as their interactions with time were then added to the model as time invariant predictors of the random intercept and fixed linear slope of peer victimization (see Table 2). The inclusion of these main effects accounted for 29.8% of the level-2 random intercept variance for children and 1.3% of the level-1 residual variance, for a total $R^2 = .27$. Results indicated that gender (i.e., being male), grade level (i.e., being in second grade), passive coping, and anger dysregulation predicted significantly higher concurrent levels of peer victimization at Time 1 (i.e., they had positive coefficients predicting the random intercept). In contrast, no variables were uniquely associated with the fixed linear slope of peer victimization. Follow-up analyses were conducted to examine each main effect independently after controlling for gender and grade level (see Appendix D, Tables D1 through D3). With regard to concurrent associations, results were generally consistent with the bivariate correlations provided in Table 1. With regard to longitudinal associations, cognitive distancing predicted significantly less negative linear change in peer victimization over time; however, no other coping strategy or emotion dysregulation variable was uniquely related to the fixed linear slope of peer victimization.

Interactive effects of coping strategies and anger dysregulation. Product terms between each coping strategy and anger dysregulation as well as their interactions with time were subsequently added to the main effects model (see Table 3). Results indicated that anger dysregulation interacted with both problem solving and humor to influence the fixed linear slope of peer victimization. The inclusion of these interaction effects accounted for an additional 2.6%

of the level-1 residual variance. As shown in Figure 2, follow-up regions of significance testing revealed that greater problem solving predicted significantly less negative linear change in peer victimization for children with anger dysregulation scores greater than or equal to +1.59 *SD* (upper bound), equivalent linear change in peer victimization for children with anger dysregulation scores between +1.59 *SD* and −1.66 *SD*, and significantly more negative linear change in peer victimization for children with anger dysregulation scores less than or equal to −1.66 *SD* (lower bound). Thus, problem solving was a harmful strategy for 5.6% of children, an ineffective strategy for 89.5% of children, and an effective strategy for 4.9% of children in this sample according to their levels of anger dysregulation. Similarly, as shown in Figure 3, greater humor predicted significantly less negative linear change in peer victimization for children with anger dysregulation scores greater than or equal to +1.01 *SD* (upper bound) and equivalent linear change in peer victimization for children with anger dysregulation scores less than +1.01 *SD*; note that the lower bound of anger dysregulation fell beyond the limits of the data (i.e., less than −3 *SD*). Thus, humor was a harmful strategy for 15.6% of children and an ineffective strategy for 84.4% of children in this sample according to their levels of anger dysregulation.

Next, product terms between each coping strategy, anger dysregulation, and gender, along with their interactions with time and the embedded lower-order interactions, were separately added to the model. Results indicated that anger dysregulation and gender interacted with passive coping to influence the random intercept of peer victimization, $b = –.28$, $SE = .12$, $p = .03$, but not the fixed linear slope, $b = .03$, $SE = .05$, $p = .58$. The inclusion of these interaction effects accounted for an additional 2.2% of the level-2 random intercept variance for children. As shown in Figure 4, follow-up regions of significance testing revealed that greater passive coping predicted significantly higher concurrent levels of peer victimization among boys

with anger dysregulation scores greater than or equal to –0.48 *SD* (upper bound) and girls with anger dysregulation scores less than or equal to +0.52 *SD* (lower bound) as well as equivalent levels of peer victimization among boys with anger dysregulation scores less than –0.48 *SD* and girls with anger dysregulation scores greater than +0.52 *SD*; note that the lower bound of anger dysregulation for boys (i.e., less than –3 *SD*) and the upper bound of anger dysregulation for girls (i.e., greater than +3 *SD*) fell beyond the limits of the data. Thus, passive coping was a harmful strategy for 68.9% of boys and 69.9% of girls and an ineffective strategy for 31.1% of boys and 30.1% of girls in this sample according to their levels of anger dysregulation.

Moreover, anger dysregulation and gender interacted with adult support seeking to influence the fixed linear slope of peer victimization, $b = .12$, $SE = .06$, $p = .047$, but not the random intercept, $b = –.04$, $SE = .14$, $p = .78$. The inclusion of these interaction effects accounted for an additional 1.4% of the level-1 residual variance. As shown in Figures 5a and 5b, follow-up regions of significance testing revealed that adult support seeking predicted significantly more negative linear change in peer victimization among boys with anger dysregulation scores greater than or equal to +0.78 *SD* (upper bound) and equivalent linear change in peer victimization among boys with anger dysregulation scores less than +0.78 *SD* as well as among girls regardless of their level of anger dysregulation; note that the lower bound of anger dysregulation for boys (i.e., less than –3 *SD*) and the upper (i.e., greater than +3 *SD*) and lower (i.e., less than –3 *SD*) bounds of anger dysregulation for girls fell beyond the limits of the data. Thus, adult support seeking was an effective strategy for 21.8% of boys and an ineffective strategy for 78.2% of boys and 100% of girls in this sample according to their levels of anger dysregulation. Anger dysregulation and gender did not interact with friend support seeking, problem solving,

humor, nor cognitive distancing to influence the random intercept (*b*s = –.13 to –.02, *p*s = .44 to .89) or fixed linear slope (*b*s = –.03 to .06, *p*s = .40 to .62) of peer victimization.

Interactive effects of coping strategies and sadness dysregulation. Product terms between each coping strategy and sadness dysregulation as well as their interactions with time were subsequently added to the main effects model (see Table 4). Results indicated that sadness dysregulation interacted with passive coping to influence the random intercept of peer victimization and with humor to influence the fixed linear slope of peer victimization. The inclusion of these interaction effects accounted for an additional 3.6% of the level-2 random intercept variance for children and 1.8% of the level-1 residual variance. As shown in Figure 6, follow-up regions of significance testing revealed that passive coping predicted significantly higher concurrent levels of peer victimization for children with sadness dysregulation scores less than or equal to +1.19 *SD* (lower bound) and equivalent levels of peer victimization among children with sadness dysregulation scores greater than +1.19 *SD*; note that the upper bound for sadness dysregulation fell beyond the limits of the data (i.e., greater than +3 *SD*). Thus, passive coping was a harmful strategy for 88.3% of children and an ineffective strategy for 11.7% of children in this sample according to their levels of sadness dysregulation. As shown in Figure 7, humor predicted significantly less negative linear change in peer victimization for children with sadness dysregulation scores greater than or equal to +1.48 *SD* (upper bound) and equivalent linear change in peer victimization for children with sadness dysregulation scores less than +1.48 *SD*; note that the lower bound for sadness dysregulation fell beyond the limits of the data (i.e., less than –3 *SD*). Thus, humor was a harmful strategy for 7.0% of children and an ineffective strategy for 93.0% of children in this sample according to their levels of sadness dysregulation.

Next, product terms between each coping strategy, sadness dysregulation, and gender, along with their interactions with time and embedded lower-order interactions, were separately added to the model. Sadness dysregulation and gender did not interact with any coping strategy to influence the random intercept (*b*s = –.13 to .05, *p*s = .23 to .98) or fixed linear slope (*b*s = –.02 to .07, *p*s = .13 to .88) of peer victimization.

Discussion

The current longitudinal study examined the interactive influence of six common coping strategies (i.e., adult support seeking, friend support seeking, problem solving, humor, passive coping, and cognitive distancing) and emotion (i.e., anger and sadness) dysregulation on concurrent levels and subsequent trajectories of peer victimization over a 2-year period during middle childhood with attention to potential gender differences. Overall, results provided support for the notion that the effectiveness of particular responses may depend on children's overt, undercontrolled displays of anger and sadness (Kochenderfer-Ladd, 2004; Mahady Wilton et al., 2000; Spence et al., 2009; Waasdorp & Bradshaw, 2011); however, patterns of moderation varied according to discrete emotions, gender, and whether concurrent or prospective associations were considered. Specific findings, directions for future research, and implications for practice are reviewed in turn below.

Trajectories of Peer Victimization

Consistent with predictions, significant variability was observed in the initial rate of peer victimization, and children exhibited decreasing trajectories of victimization across the 2-year period. In contrast to previous research (e.g., Reavis et al., 2010, Rudolph et al., 2011), however, significant variability around the linear slope was not found. It may be that the current study was underpowered to detect individual differences in trajectories of peer victimization, especially

given that the majority of the variance was between persons (i.e., 68%) and classrooms (i.e., 10%). Note that power to detect random effects is often lower than power to detect fixed effects, yet time-invariant predictors of fixed linear change can still be examined (Hoffman, 2015).

Adult Support Seeking

Contrary to expectations, adult support seeking was more strongly associated with decreases in peer victimization over time at high, but not low, levels of anger dysregulation among boys. For girls, this strategy was not associated with concurrent levels or subsequent trajectories of peer victimization regardless of their anger or sadness dysregulation. These results were initially surprising considering that social support seeking is more normative in girls' peer groups (Rose & Rudolph, 2006), and girls tend to maintain closer relationships with teachers than boys (Birch & Ladd, 1998; Hughes et al., 2001). Further, it has been posited that boys may be met with disapproval when they seek assistance or advice from adults due to cultural expectations for them to handle conflicts independently (Troop-Gordon & Quenette, 2010; Waasdorp & Bradshaw, 2011).

Nevertheless, there is evidence to suggest that adults report greater acceptance of anger, including more intense displays of this emotion, in boys than in girls (for a review, see Eisenberg, Cumberland, & Spinrad, 1998). For example, one observational study during early childhood found that mothers responded with attentive concern to their sons' expressions of anger but ignored or tried to inhibit such displays in their daughters (Radke-Yarrow & Kochanska, 1990). Prior work has also shown that victims' distress has the greatest effect on teachers' decisions to intervene (Blain-Arcaro, Smith, Cunningham, Vaillancourt, & Rimas, 2012), and they report being more likely to do so in incidents involving angry victims as compared to confident victims (Sokol, Bussey, & Rapee, 2016). When teachers do intervene,

peer victimization tends to decline (Hektner & Swenson, 2012; Smith & Shu, 2000), and good caregiver communication with children as well as higher levels of caregiver involvement and support are associated with lower levels of victimization (Lereya, Samara, & Wolke, 2013). Thus, overt, undercontrolled displays of anger among boys who seek support from adults may help communicate the seriousness of aggressive incidents, thereby increasing the likelihood that caregivers and/or teachers will intervene and decreasing levels of victimization over time.

It is disconcerting that adult support seeking may not be effective for the majority of children. Indeed, this finding is consistent with previous studies that have failed to find a significant association between the use of this coping strategy and experiences of peer victimization (Kochenderfer-Ladd, 2004; Spence et al., 2009; Terranova et al., 2010; Visconti & Troop-Gordon, 2010). Ultimately, youth may stop reporting incidents of victimization to adults altogether (Smith & Shu, 2000) because they believe doing so is not helpful (Mendez, Bauman, Sulkowski, Davis, & Nixon, 2014; Tenebaum et al., 2011).

It should also be noted that seeking adult support may come at a cost for children despite the fact that it results in decreased victimization over time for boys with high levels of anger dysregulation. The use of this strategy has been linked to lower peer preference among victimized boys (Kochenderfer-Ladd & Skinner, 2002) and increased loneliness and anxiety over time for both boys and girls (Visconti & Troop-Gordon, 2010). Moreover, angry victims tend to be attributed the most blame as compared to confident and sad victims (Sokol et al., 2016). Thus, the current findings provide support for the assertion that: “even the most dysregulated emotion serves some adaptive purpose in the present, even as it interferes with optimal adjustment or development” (Cole et al., 1994, p. 81).

Friend Support Seeking

After accounting for other common coping strategies, friend support seeking was not found – alone or in conjunction with anger or sadness dysregulation – to be associated with concurrent levels or subsequent trajectories of peer victimization among boys or girls. Whereas previous research findings regarding the utility of seeking help from a friend have been mixed (Elledge et al., 2010; Kochenderfer & Ladd, 1997; Visconti & Troop-Gordon, 2010), extant evidence does suggest that simply having friends attenuates risk for peer victimization (Hodges et al., 1999; Pellegrini et al., 1999). Yet, this protective function also appears to vary according to the attributes of youth's friends, including their victim status (Hodges, Malone, & Perry, 1997; Pellegrini et al., 1999), externalizing problems (Hodges et al., 1997; Hodges & Perry, 1999), and physical strength (Hodges et al., 1997). Thus, rather than the overall frequency of friend support seeking, which was assessed in the current study, it may be more important to consider the quality of the support youth receive from friends and the behavioral characteristics of who provides it in relation to their risk for peer victimization and psychosocial maladjustment following such experiences (Cooley, Fite, Rubens, & Tunno, 2015; Desjardins & Leadbeater, 2011).

Problem Solving

Interestingly, problem solving was associated with more stable patterns of peer victimization over time at high levels of anger dysregulation among boys and girls. It is likely that undercontrolled anger depletes the cognitive resources necessary to generate and implement effective problem-solving strategies (Compas et al., 2001). Indeed, negative emotions tend to "narrow [youth's] repertoire of goals, cognitions, and possible behavioral responses" (Modeki, Zimmer-Gembeck, & Guerra, 2017, p. 419). Prior work has shown that anger is one of the most

common responses to peer victimization among elementary school-age children, and it is linked to revenge seeking, which increases subsequent risk for peer victimization (Kochenderfer-Ladd, 2004). Youth who are unable to effectively regulate their anger may therefore resort to more aggressive problem-solving strategies, and in turn, exhibit greater stability in their subsequent trajectories of peer victimization.

Conversely, when levels of anger dysregulation were low, problem solving was more strongly associated with subsequent decreases in peer victimization among boys and girls. As previously stated, the function of anger is to provide energy and motivation to help overcome goal blockages (Cole et al., 1994). Thus, children who are able to effectively manage their feelings of anger after encounters with aggressive peers may be better equipped to determine the cause of their victimization, develop a plan, and take constructive action to prevent it from happening again. In addition, youth who utilize this coping strategy may be more likely to experience decreases in internalizing symptoms over time (Kochenderfer-Ladd, 2004; Sugimura et al., 2014).

Humor

As predicted, humor was associated with more stable patterns of peer victimization over time at high, but not low, levels of both anger and sadness dysregulation among boys and girls. These findings build on prior research (e.g., Elledge et al., 2010; Fox et al., 2015) and suggest that difficulties effectively managing discrete emotions are related to maladaptive forms of humor. That is, children with high levels of anger dysregulation may be more likely to utilize aggressive humor, which involves sarcasm, ridicule, and teasing, in response to peer victimization (Klein & Kuiper, 2006). This form of humor may enhance the self, but it is associated with hostility and may ultimately have the effect of alienating others and disrupting

social functioning (Fox et al., 2015; Klein & Kuiper, 2006; Martin et al., 2003). Children with high levels of sadness dysregulation, on the other hand, may be more likely to utilize self-defeating humor with the aim of enhancing their social status and relationships with others following experiences of victimization (Fox et al., 2015). Unfortunately, this form of humor is thought to reflect underlying emotional neediness and low self-esteem (Fox et al., 2015; Klein & Kuiper, 2006; Martin et al., 2003). It is posited that: "the explicit demeaning and ingratiating nature of self-defeating humor may result in a negative distancing response by recipients" (Kuiper, Kirsch, & Leite, 2010, p. 240). Indeed, self-disparaging humor has previously been prospectively linked to higher levels of peer victimization (Fox et al., 2015).

At the same time, the use of humor has been shown to predict fewer depressive symptoms over time among boys with high negative emotionality (Sugimura et al., 2014). Humor has also consistently been rated as the most effective response by children and adolescents (Scrambler et al., 1998; Sulkowski et al., 2014), and teachers tend to endorse it as a helpful coping strategy (Rosen et al., 2017). Further, Fox and colleagues (2015) report that youth have often been encouraged to use the potentially harmful strategy of "fogging" by agreeing with the comments of the aggressor. Although more adaptive (e.g., affiliative) forms of humor may reduce subsequent risk for peer victimization (Fox et al., 2015), it appears that many youth will be unable to effectively utilize humor, and some may inadvertently increase their risk for more stable patterns of victimization over time.

Passive Coping

Mixed support was found for the hypothesis that anger and sadness dysregulation would exacerbate the association between passive coping and concurrent victimization. More specifically, passive coping was related to higher concurrent levels of victimization at high, but

not low, levels of anger regulation among boys. Thus, exaggerated displays of anger among boys who try to use this coping strategy may communicate weakness and submission to peers, and aggressors likely find such responses particularly rewarding (Mahady Wilton et al., 2000). For girls, passive coping was related to higher concurrent levels of victimization at low, but not high, levels of anger dysregulation; however, the lowest levels of peer victimization were observed when levels of both passive coping and anger dysregulation were low. In a study of early childhood, Hanish and colleagues (2004) reported: "anger expressions in the classroom were more common among the boys than among the girls. Thus, when girls do express anger, it may be more salient, by virtue of being less normative, making angry girls more noticeable than other girls or, perhaps, even than angry boys" (p. 349). It is unclear why overt, undercontrolled displays of anger are protective among girls who use passive coping, but it may be that these youth come to the attention of teachers (Sokol et al., 2016) or aggressive peers are more reluctant to target them because their atypical behavioral presentation does not communicate vulnerability and submission in the same manner as it does among boys. Yet, regardless of the immediate benefit with regard to victimization, the expression of high levels of anger may increase the likelihood that girls will be rejected by their peers (Hubbard, 2001).

Moreover, low levels of sadness dysregulation exacerbated the association between passive coping and concurrent victimization. Although passive coping was related to higher levels of victimization at traditionally identified high levels of sadness dysregulation (i.e., +1 *SD*; Aiken & West, 1991), this association was no longer significant when the intensity of the displays of sadness continued to increase. Of note, sadness may function as a social signal that helps elicit support from others (Campos et al., 1989). It is possible that this may protect children who experience very high levels of sadness dysregulation and utilize this coping strategy from

being targeted by aggressive peers. In fact, teachers and bystanders report the greatest intention to intervene when they witness the reactions of sad victims (Sokol, Bussey, & Rapee, 2015; Sokol et al., 2016). In contrast, this coping strategy may communicate vulnerability to aggressors among youth who exhibit fewer displays of sadness. The use of passive coping may also negatively impact other domains of youth's functioning, as it has been associated with depressive symptoms and loneliness (Kochenderfer-Ladd & Skinner, 2002; Machmutow et al., 2012).

Cognitive Distancing

After accounting for other common coping strategies, cognitive distancing was not found – alone or in conjunction with anger or sadness dysregulation – to be associated with concurrent levels or subsequent trajectories of peer victimization among boys or girls. It is unsurprising that cognitive distancing was not uniquely associated with decreases in victimization given that it is an avoidance response that does not involve direct attempts to address the problem. However, prior investigations have shown that this strategy predicts higher levels of victimization over the course of the school year (Kochenderfer-Ladd, 2004; Shelley & Craig, 2010; Visconti & Troop Gordon, 2010). Thus, it may be that cognitive distancing increases children's risk for peer victimization over shorter (e.g., 6-month) intervals, but not across multiple grade levels. Youth with some exposure to peer victimization also report that cognitive distancing is one of the least effective responses (Sulkowski et al., 2014), and teachers recommend avoiding this coping strategy because it is unlikely to prevent revictimization (Rosen et al., 2017). Moreover, previous research has shown that girls who use this strategy may experience more loneliness and social problems, whereas boys may exhibit more symptoms of anxiety (Kochenderfer-Ladd & Skinner, 2002). What is concerning, however, is that between 66-71% of children and adolescents endorse

utilizing passive coping in response to aggressive peers (Smith & Shu, 2000; Sulkowski et al., 2014).

Limitations and Future Directions

Several methodological limitations should be considered when interpreting results from the current investigation. First, all study variables were assessed using self-report measures, which are vulnerable to shared method variance (see Hawker & Boulton, 2000). It is important to note that children and adolescents are regarded as the most valid informants of peer victimization because they are able to provide a broader account of experiences that have occurred across diverse settings, which others may not be aware of (Cooley & Fite, 2016; Ladd & Kochenderfer-Ladd, 2002). Child-reports of coping strategies and emotion regulation are also supported in the literature since they are able to capture information regarding strategies that involve cognitive processes (e.g., problem solving, cognitive distancing, passive coping; Compas et al., 2017) and integrate various indices of emotion (e.g., behavioral displays, cognitions, physiological symptoms; Adrian, Zeman, & Veits, 2011). Nonetheless, teacher- and peer-reports of peer victimization may provide additive and unique information (Ladd & Kochenderfer-Ladd, 2002), and Compas and colleagues assert that "multiinformant methods need to become a standard for the field" of research on coping and emotion regulation (p. 976). In particular, considering the current focus on overt, undercontrolled displays of anger and sadness, observational methods (e.g., coding body gestures, tone of voice, facial expressions) and/or reports from other informants (e.g., caregivers, teachers, peers) would provide a more complete assessment of children's emotional functioning and bolster the validity of findings (Adrian et al., 2011; Compas et al., 2017). Due to complexity of the models, factor scores were utilized rather than latent variables in the current study; however, this approach also has limitations in that it

involves the assumption of perfect reliability of observed variables, and it does not take into account the uncertainty inherent in latent variables (i.e., the distribution of possible values for each person), which may downwardly-bias associations among variables as well as the standard errors of these effects (Hoffman, 2016b).

The independent examination of coping strategies represents another limitation of the current research, as children may employ more than one response when they are victimized (Tenenbaum et al., 2011; Waasdorp & Bradshaw, 2011). Similarly, youth and teachers tend to endorse multiple strategies as effective (e.g., Rosen et al., 2017; Sulkowski et al., 2014), and intervention programs often advise using more than one strategy simultaneously during encounters with aggressive peers (Visconti & Troop-Gordon, 2010). Future studies using person-centered analyses (e.g., latent class analysis) would be useful for determining how combinations of coping strategies and emotion regulation processes influence youth's subsequent risk for peer victimization and psychosocial maladjustment. Further research efforts are also needed to examine how other recommended coping strategies (e.g., assertion, forgiveness; Egan & Todorov, 2009; Rosen et al., 2017) and emotional reactions to aggressive peers (e.g., fear, embarrassment, interest, joy; Mahady Wilton et al., 2000; Morrow et al., 2014) are prospectively related to youth's experiences of victimization. In addition, taking into account previous findings indicating that the use of coping strategies may change over time as a result of peer victimization (e.g., Troop-Gordon, Sugimura, & Rudolph, 2017), it would be informative for future investigations to examine emotion regulation processes as a moderator of the dynamic relations between experiences of victimization and coping strategies.

Finally, the generalizability of the findings may be limited due to the fact that the current sample was comprised of predominantly Caucasian elementary school-age children from a rural

community in the United States. Previous research has shown that there are cultural differences in youth's selection of coping responses (Ma & Bellmore, 2016) and patterns of emotion regulation (Morelen, Zeman, Perry-Parrish, & Anderson, 2012). Moreover, the transition to adolescence is accompanied by changes in the use of coping strategies (Hampel & Petermann, 2005) and the ability to regulate emotions (Zeman, Cassano, Perry-Parrish, & Stegall, 2006). Thus, additional investigations are needed to determine whether the interactive effects of coping strategies and emotion dysregulation on experiences of peer victimization differ as a function of social context and developmental period.

Implications for Practice

Notwithstanding these limitations, the current study builds on past research and provides additional support for the utility of assessing for anger and sadness dysregulation in order to identify elementary school-age children who may be at risk for experiencing higher concurrent levels of victimization in addition to more stable patterns of victimization over time (Morelen et al., 2016). It appears that educators, caregivers, and clinicians should exercise some caution when recommending coping strategies to victimized youth, as individual-level characteristics (i.e., emotion dysregulation) may impact their ability to implement them effectively. Consistent with recent recommendations (Bierman et al., 2015; Godleski et al., 2015; Kochenderfer-Ladd, 2004; McLaughlin et al., 2009; Rosen et al., 2012; Spence et al., 2009), the present findings suggest that some youth may require interventions that focus on both enhancing emotion regulation skills and teaching strategies for responding to peer victimization in a more adaptive manner. This may be best achieved through a tiered approach that involves both universal school-based prevention programs and targeted interventions for youth experiencing high levels of peer victimization.

A growing number of schools have begun to adopt universal social and emotional learning (SEL) programs in an effort to promote healthy psychosocial functioning and enhance academic achievement (for a meta-analytic review, see Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). For example, Promoting Alternative Thinking Strategies (PATHS) is a program that targets improvements in emotion regulation, coping, and decision making and has been shown to increase elementary school-age children's emotion-related vocabulary, developmental understanding of emotions, and self-efficacy beliefs regarding emotion management (Greenberg, Kusche, Cook, & Quamma, 1995). PATHS intervention schools have also demonstrated reduced aggression and increased prosocial behavior relative to control schools (Conduct Problems Prevention Research Group, 2010). It does not appear, however, that PATHS has an impact on overall peer problems, as greater reductions have been observed among control schools (Humphrey et al., 2016). Similarly, other SEL programs, such as Second Step, have failed to significantly decrease peer problems among elementary school-age children (e.g., Low, Cook, Smolkowski, & Buntain-Ricklefs, 2015).

Most direct efforts to address peer victimization to date have also taken the form of universal school-based programs. Yet, many interventions have produced modest to no meaningful changes in youth's experiences of victimization, and they tend to be less effective among younger children (i.e., ages 10 and under) and when implemented in the United States and Canada as compared to European countries (see Ttofi & Farrington, 2011). One recent meta-analysis of randomized controlled trials evaluating the efficacy of anti-bullying programs found moderate effect sizes for reductions in rates of aggression and victimization and improvements in attitudes towards school violence, yet significant heterogeneity was observed among the included studies (Jiménez-Barbero, Ruiz-Hernández, Llor-Zargoza, Pérez-García, & Llor-Esteban, 2016).

Taken together, although such universal SEL and anti-bullying programs are needed to promote emotion regulation and coping and reduce the overall rates of victimization within schools, it appears unlikely that they will be able to completely eliminate problems of peer aggression and victimization.

Importantly, prior work has shown that teachers rely on students' reactions when deciding whether to intervene in aggressive interactions (Smith et al., 2010), but tend to underestimate victims' levels of anger or sadness (Landau, Milich, Harris, & Larson, 2001). Observational research suggests that teachers intervene in less than 20% of incidents of peer victimization, which may reinforce aggressors' behavior (Craig, Pepler, Atlas, 2000) and decrease the likelihood that victims will seek assistance (Oliver & Candappa, 2007). Conversely, teacher intervention is linked to lower levels of peer victimization (Hektner & Swenson, 2012; Smith & Shu, 2000). Caregivers may also play an important protective role given that good communication with their children and higher levels of caregiver involvement and support are negatively related to experiences of victimization (Lereya et al., 2013). Interviews with students who were consistently victimized over the course of an academic year, indicated that they were most likely to seek help from their families and their mothers in particular (Mackay, Carey, & Stevens, 2011). Of note, the duration and intensity of teacher trainings and the presence of caregiver trainings in anti-bullying programs have been associated with decreased victimization (Ttofi & Farrington, 2011). The current findings highlight the necessity of such trainings to help both caregivers and teachers better recognize and respond to all incidents of peer aggression, regardless of their perceptions of emotional distress among the victims. As Mendez and colleagues (2014) assert: "Prevention programs need to do more than exhort students to tell

adults. Students need to have confidence that adults will make things better when they witness or learn of peer victimization" (Mendez et al., 2014, p. 109).

Moreover, targeted interventions are sorely needed to address the mental health needs of children and adolescents experiencing high levels of victimization. This point is underscored by previous studies demonstrating that early exposure (i.e., second grade) to peer victimization is associated with long-term emotional and behavioral difficulties (Rudolph et al., 2011, 2014), and chronically victimized children may be unable to effectively use any coping strategy, regardless of which they choose (Elledge et al., 2010). Emerging evidence suggests that group-based cognitive behavioral interventions are beneficial for victimized youth. That is, results from initial investigations have shown significant decreases in peer victimization, internalizing (e.g., depression, anxiety) symptoms, peer rejection, and passive coping among children and adolescents who participated in the intervention groups (Berry & Hunt, 2009; Fite, Cooley, Poquiz, & Williford, 2018; Fung, 2012, 2017). Larger-scale scale replications, including randomized controlled trials, are needed to further evaluate the efficacy of this approach; however, in light of the current findings, such interventions are especially promising because cognitive behavioral therapy has also been associated with improvements in emotion regulation (e.g., Suveg et al., 2018). It will be important for future research to examine whether including specific foci on (a) developing youth's ability to select and effectively implement problem solving strategies in response to aggressive peers, (b) fostering more adaptive (i.e., affiliative) forms of humor, and (c) equipping children with more socially adaptive strategies for regulating discrete emotions in response to interpersonal stress provides an incremental contribution to the effectiveness of cognitive behavioral interventions among victimized youth.

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Table 1

Descriptive Statistics and Correlations Among Control Variables and Factor Scores

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender	—												
2. Grade	.08	—											
3. Adult Support Seeking	.04	–.01	—										
4. Friend Support Seeking	**.21**	.06	**.39**	—									
5. Problem Solving	**.12**	–.01	**.55**	**.49**	—								
6. Humor	.00	.06	**.25**	**.25**	**.34**	—							
7. Passive Coping	.02	–.01	**.15**	**.25**	**.22**	**.17**	—						
8. Cognitive Distancing	–.03	.01	**.24**	**.27**	**.37**	**.37**	**.38**	—					
9. Anger Dysregulation	**–.20**	–.05	–.10	.00	–.05	.04	**.30**	.09	—				
10. Sadness Dysregulation	.09	–.04	.02	**.15**	.01	.05	**.27**	**.14**	**.41**	—			
11. T1 Peer Victimization	**–.13**	**–.15**	.11	**.20**	**.17**	**.18**	**.48**	**.26**	**.36**	**.17**	—		
12. T2 Peer Victimization	**–.26**	–.08	.09	.04	.04	**.16**	**.32**	**.16**	**.25**	.10	**.73**	—	
13. T3 Peer Victimization	–.07	–.02	.04	**.14**	.09	**.14**	**.38**	**.14**	**.30**	**.15**	**.76**	**.72**	—
Mean	—	—	0.03	0.14	0.07	0.00	0.01	–0.02	–0.13	0.06	–0.11	–0.55	–0.72
Standard Deviation	—	—	0.83	0.71	0.68	0.88	0.87	0.72	0.69	0.70	0.97	1.05	0.94

Note. T1 = Time 1 (Baseline); T2 = Time 2 (1-year follow-up); T3 = Time 3 (2-year follow-up); Gender (0 = Boys, 1 = Girls); Grade (0 = Second grade, 1 = Third grade); Bold estimates represent statistically significant paths ($p < .05$).

Table 2

Main Effects of Coping Strategies and Emotion Dysregulation on Concurrent Levels and Trajectories of Peer Victimization

	Random Intercept			Fixed Linear Slope		
	b	*SE*	*p*	*b*	*SE*	*p*
Time	—	—	—	**–.35**	**.05**	**< .001**
Gender	**–.28**	**.11**	**.01**	.05	.04	.24
Grade	**–.24**	**.12**	**.05**	.07	.06	.25
Adult Support Seeking	.04	.06	.55	–.02	.03	.55
Friend Support Seeking	.07	.06	.24	–.02	.02	.41
Problem Solving	–.02	.07	.78	–.00	.03	.94
Humor	.07	.06	.21	.01	.02	.61
Passive Coping	**.33**	**.06**	**< .001**	–.04	.02	.10
Cognitive Distancing	.05	.06	.42	–.02	.02	.47
Anger Dysregulation	**.21**	**.06**	**< .001**	–.02	.02	.45
Sadness Dysregulation	–.05	.06	.43	.01	.02	.57

Note. Gender (0 = Boys, 1 = Girls); Grade (0 = Second grade, 1 = Third grade); Bold estimates represent statistically significant paths ($p < .05$).

Table 3

Interactive Effects of Coping Strategies and Anger Dysregulation on Concurrent Levels and Trajectories of Peer Victimization

	Random Intercept			Fixed Linear Slope		
	b	*SE*	*p*	*b*	*SE*	*p*
Time	—	—	—	**–.37**	**.05**	**< .001**
Gender	**–.28**	**.11**	**.01**	.06	.04	.17
Grade	–.22	.12	.07	.07	.06	.26
Adult Support Seeking	.05	.06	.40	–.03	.03	.27
Friend Support Seeking	.07	.06	.24	–.01	.02	.59
Problem Solving	–.03	.07	.62	.00	.03	.99
Humor	.06	.06	.24	.02	.02	.46
Passive Coping	**.33**	**.06**	**< .001**	–.02	.02	.47
Cognitive Distancing	.04	.06	.49	–.04	.02	.10
Anger Dysregulation	**.24**	**.06**	**< .001**	–.01	.02	.65
Sadness Dysregulation	–.04	.06	.45	.01	.02	.74
Adult Support Seeking x Anger	.07	.06	.24	–.04	.03	.11
Friend Support Seeking x Anger	.06	.06	.27	–.01	.02	.73
Problem Solving x Anger	–.02	.06	.74	**.06**	**.03**	**.02**
Humor x Anger	–.04	.06	.45	**.05**	**.02**	**.04**
Passive Coping x Anger	–.06	.06	.36	.04	.03	.10
Cognitive Distancing x Anger	–.04	.06	.49	–.05	.03	.07

Note. Gender (0 = Boys, 1 = Girls); Grade (0 = Second grade, 1 = Third grade); Bold estimates represent statistically significant paths ($p < .05$).

Table 4

Interactive Effects of Coping Strategies and Sadness Dysregulation on Concurrent Levels and Trajectories of Peer Victimization

	Random Intercept			Fixed Linear Slope		
	b	*SE*	*p*	*b*	*SE*	*p*
Time	—	—	—	**–.36**	**.05**	**< .001**
Gender	**–.25**	**.11**	**.02**	.04	.04	.33
Grade	**–.24**	**.12**	**.04**	.08	.06	.22
Adult Support Seeking	.04	.06	.48	–.02	.03	.39
Friend Support Seeking	.07	.06	.23	–.02	.03	.37
Problem Solving	–.02	.07	.74	.01	.03	.69
Humor	.08	.06	.14	.01	.02	.69
Passive Coping	**.35**	**.06**	**< .001**	–.01	.02	.53
Cognitive Distancing	.02	.06	.76	–.05	.03	.06
Anger Dysregulation	**.22**	**.06**	**< .001**	–.02	.02	.30
Sadness Dysregulation	–.04	.06	.46	.01	.02	.53
Adult Support Seeking x Sadness	–.03	.06	.63	–.01	.03	.69
Friend Support Seeking x Sadness	.06	.06	.28	–.02	.02	.41
Problem Solving x Sadness	.04	.06	.48	.01	.03	.58
Humor x Sadness	.04	.06	.53	**.05**	**.02**	**.03**
Passive Coping x Sadness	**–.15**	**.06**	**.01**	.02	.02	.33
Cognitive Distancing x Sadness	–.03	.06	.66	.00	.02	.96

Note. Gender (0 = Boys, 1 = Girls); Grade (0 = Second grade, 1 = Third grade); Bold estimates represent statistically significant paths ($p < .05$).

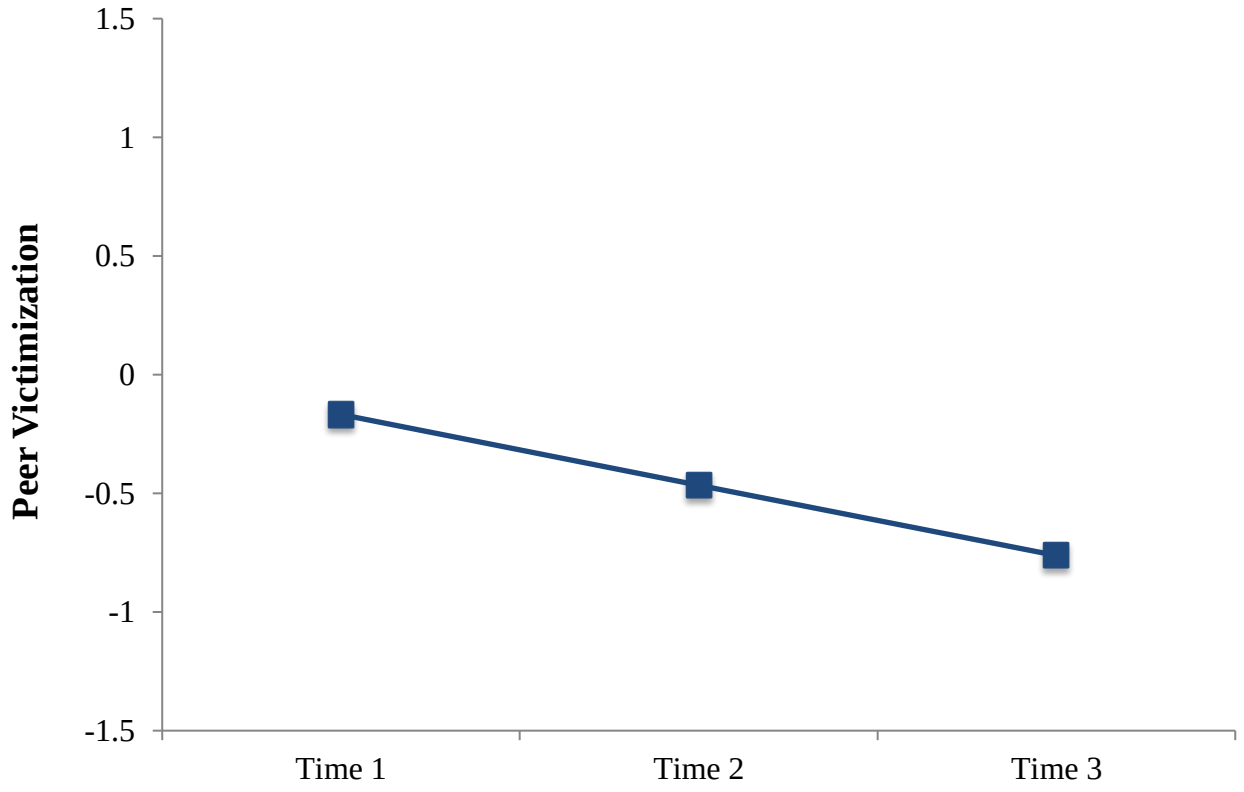


Figure 1. Predicted trajectories of peer victimization over a 2-year period.

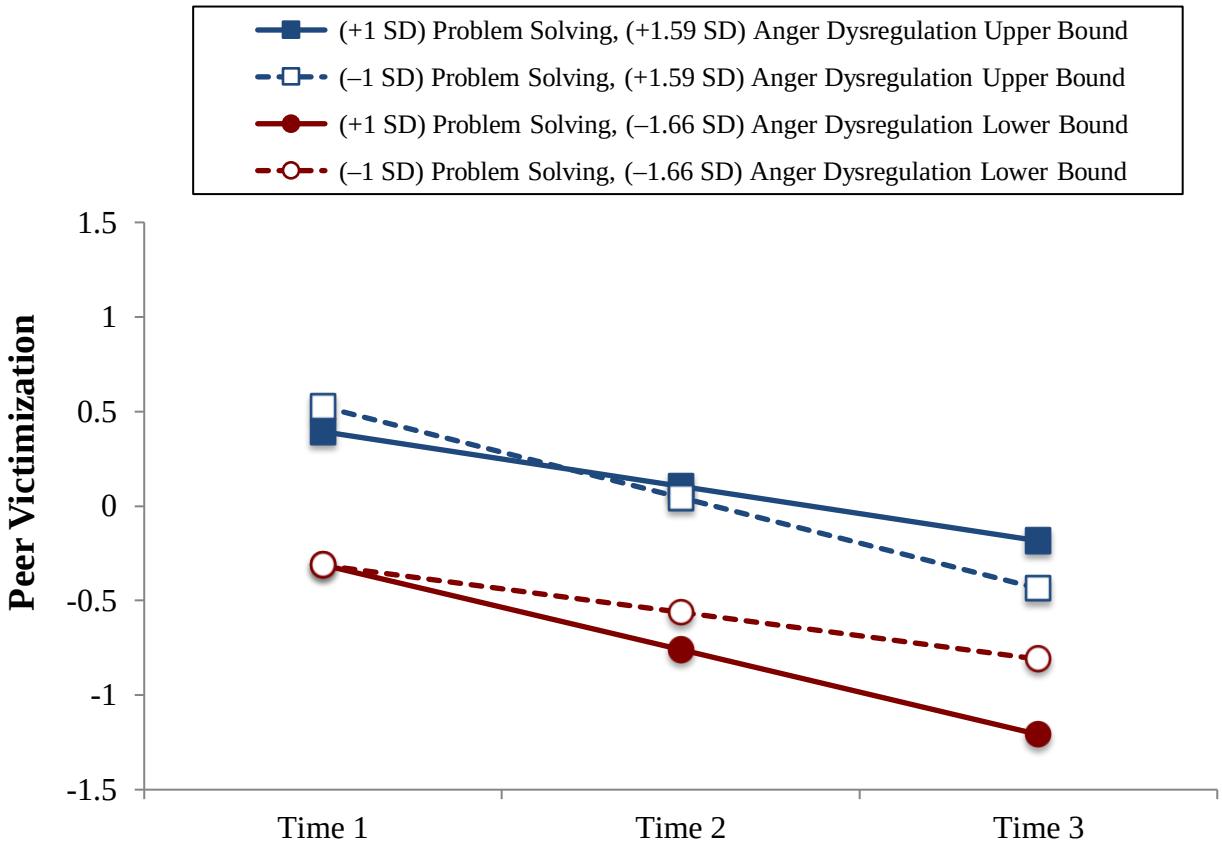


Figure 2. Interactive effect of problem solving and anger dysregulation on the trajectories of peer victimization.

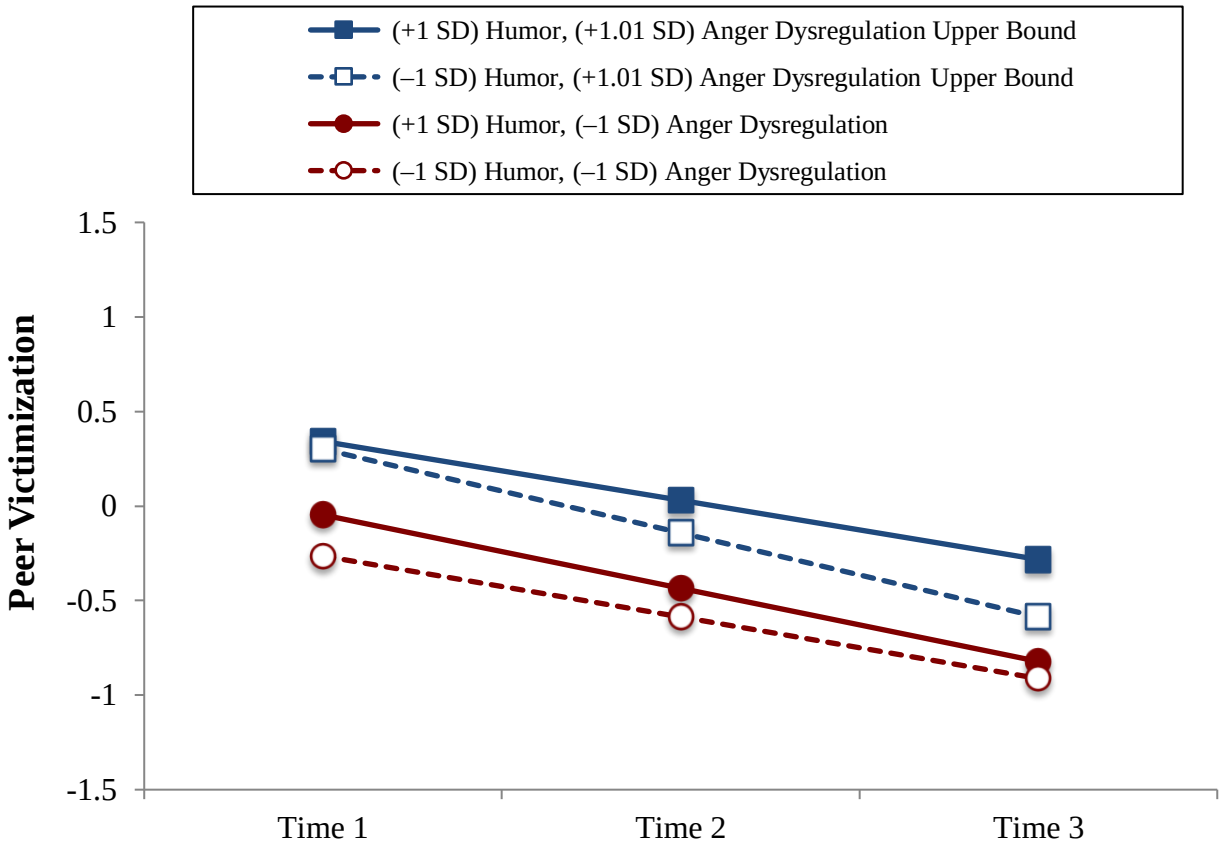


Figure 3. Interactive effect of humor and anger dysregulation on the trajectories of peer victimization. Note that the lower bound fell beyond the limits of the data; low levels (–1 *SD*) of anger dysregulation are presented instead for comparison purposes.

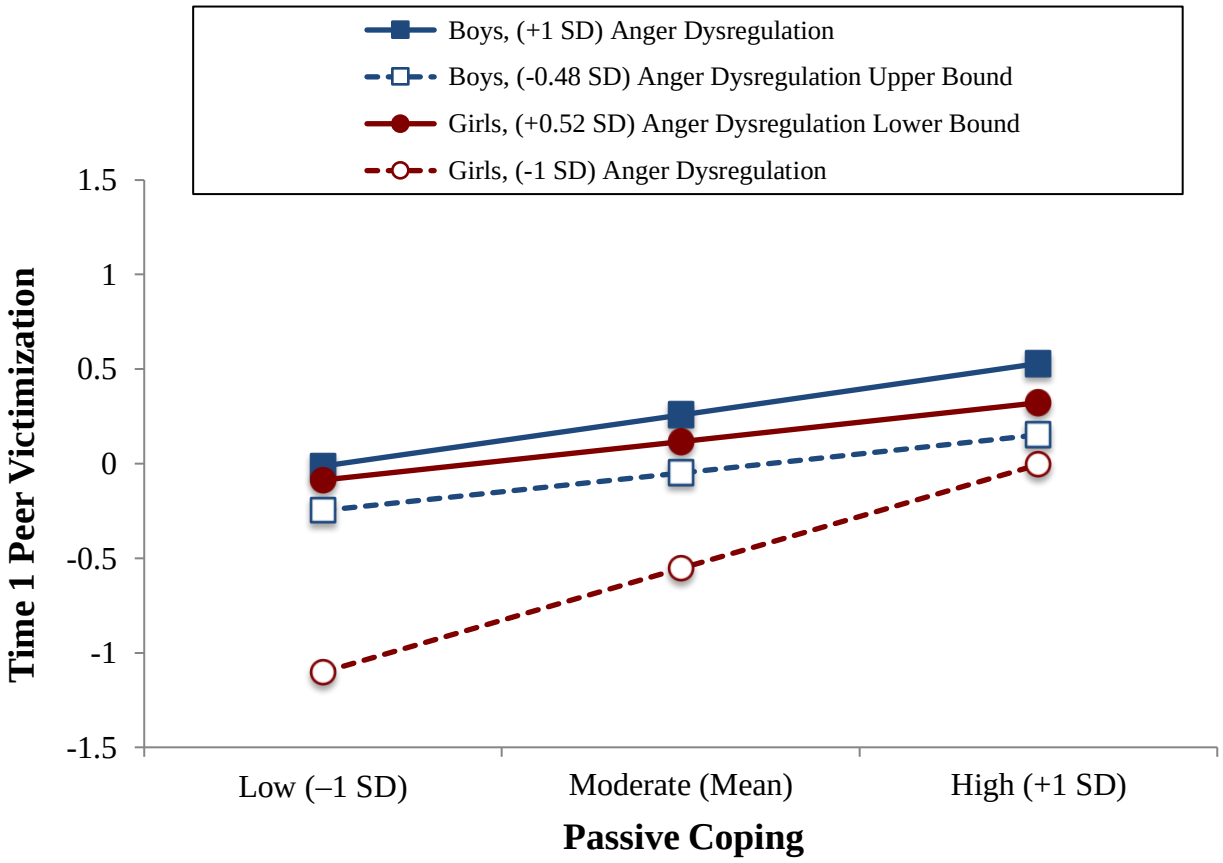
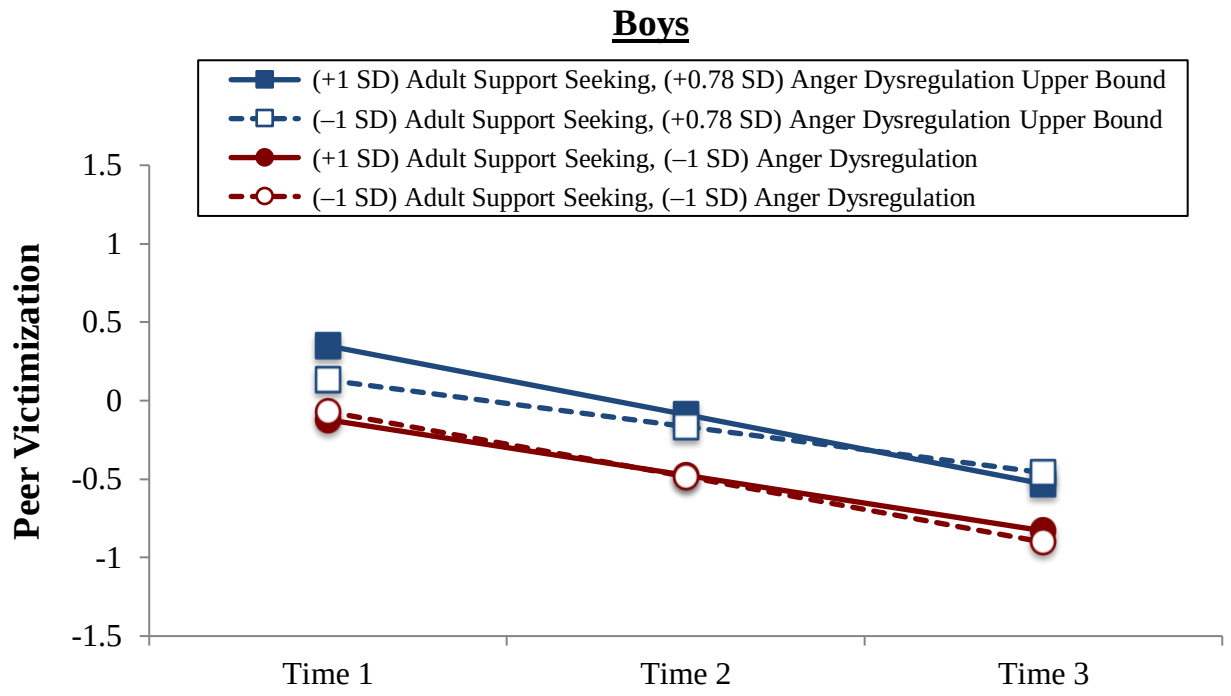


Figure 4. Interactive effect of passive coping, anger dysregulation, and gender on concurrent levels of peer victimization. Note that the lower bound for boys and the upper bound for girls fell beyond the limits of the data; high levels (+1 *SD*) of anger dysregulation for boys and low levels (–1 *SD*) of anger dysregulation for girls are presented instead for comparison purposes.

(a)



(b)

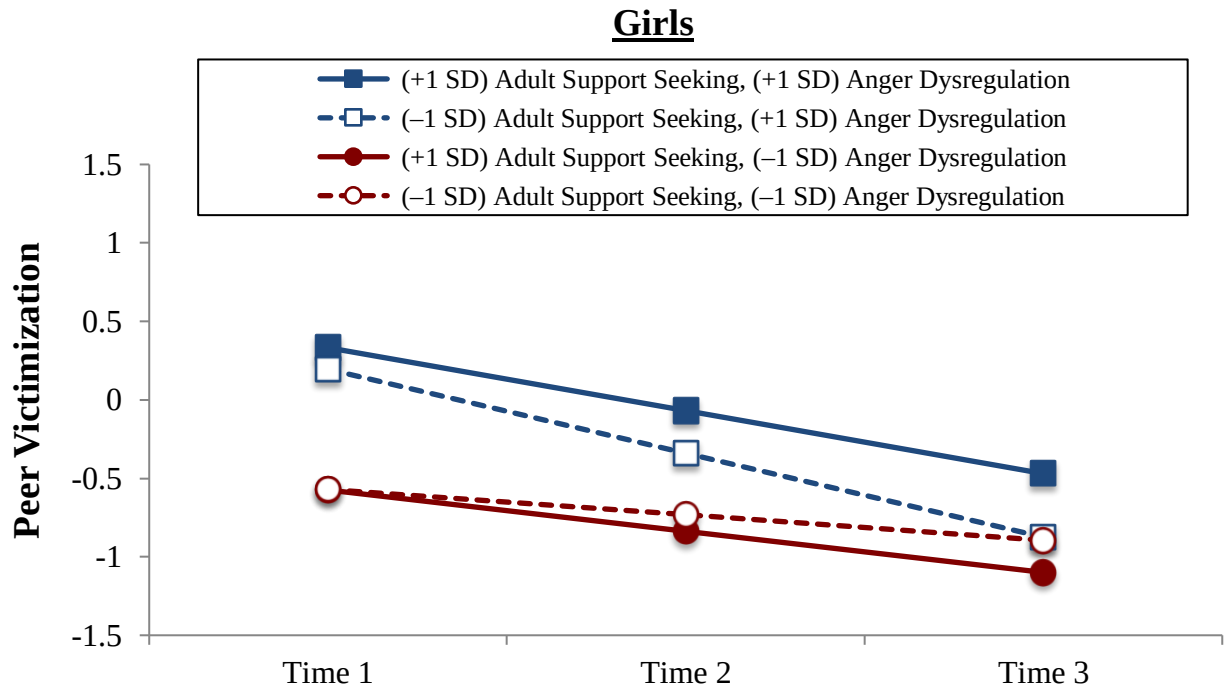


Figure 5 (a-b). Interactive effect of adult support seeking, anger dysregulation, and gender on the trajectories of peer victimization. Note that the lower bound for boys as well as the upper and lower bounds for girls fell beyond the limits of the data; low levels (–1 *SD*) of anger dysregulation for boys and high and low levels (±1 *SD*) of anger dysregulation for girls are presented instead for comparison purposes.

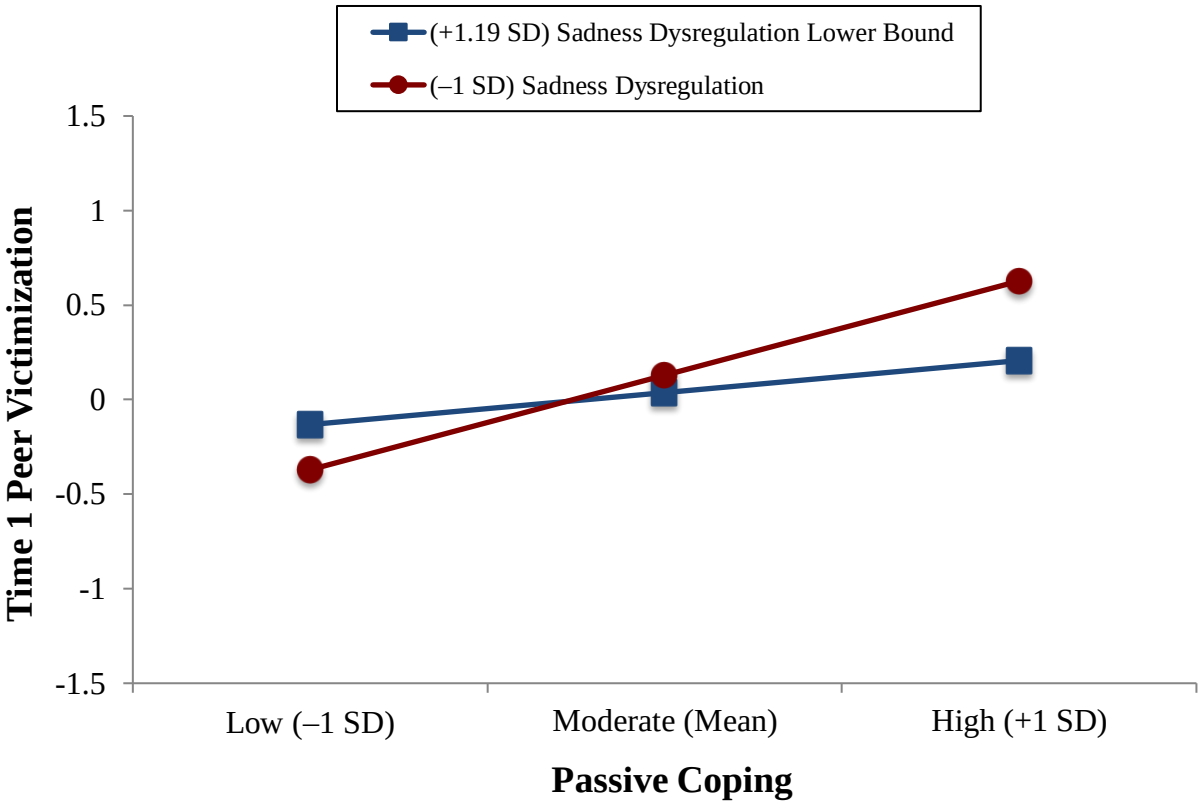


Figure 6. Interactive effect of passive coping and sadness dysregulation on concurrent levels of peer victimization. Note that the upper bound fell beyond the limits of the data; low levels (–1 *SD*) of sadness dysregulation are presented instead for comparison purposes.

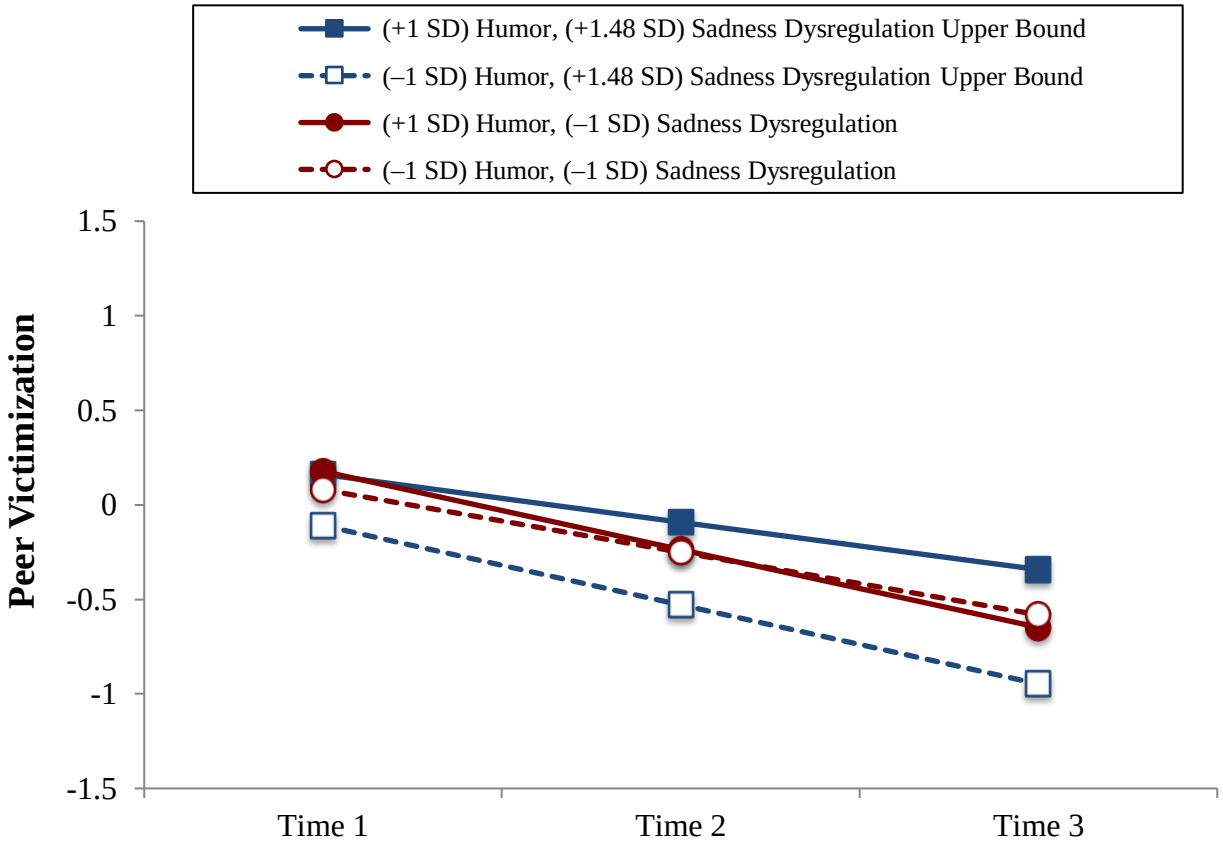


Figure 7. Interactive effect of humor and sadness dysregulation on the trajectories of peer victimization. Note that the lower bound fell beyond the limits of the data; low levels (–1 *SD*) of sadness dysregulation are presented instead for comparison purposes.

Appendix A: Study Measures

Coping Strategies: Self-Report Coping Scale (SRCS; Causey & Dubow, 1992; Kochenderfer-Ladd & Pelletier, 2008; Sugimura, Rudolph, & Agoston, 2014)

Instructions: Please circle the response that best describes your behavior.

When another child is mean to me, I usually…

	Never	**Sometimes**	**Most of the Time**
1. Act like nothing happened	1	2	3
2. Try to think of ways to stop it	1	2	3
3. Tell a friend what happened	1	2	3
4. (Do something mean right back to them)*	1	2	3
5. Go off by yourself	1	2	3
6. Make a joke to diffuse the situation	1	2	3
7. Forget the whole thing	1	2	3
8. Ask a friend what you should do	1	2	3
9. Tell your mom or dad what happened	1	2	3
10. (Hurt the kid who was mean to you)*	1	2	3
11. Become so upset you cannot talk to anyone	1	2	3
12. Do something funny as a distraction technique	1	2	3
13. Tell yourself it doesn't matter	1	2	3
14. (Throw or hit something because you get angry)*	1	2	3
15. Feel like crying	1	2	3

	Never	Sometimes	Most of the Time
16. Laugh off the situation and try not to take it personally	1	2	3
17. Think about it for a long time	1	2	3
18. Try to find out why it happened	1	2	3
19. Tell the teacher what happened	1	2	3
20. (Yell at the kid who is being mean)*	1	2	3
21. Blame yourself for doing something wrong	1	2	3
22. Try to laugh about it so that it won't seem so bad	1	2	3
23. Tell the mean kids you do not care	1	2	3
24. Change things to keep it from happening again	1	2	3
25. Ask Mom or Dad what to do	1	2	3
26. Try to see the funny side to the situation	1	2	3
27. (Hurt the kid back)*	1	2	3
28. Worry that other kids would not like you	1	2	3
29. Ask the teacher what to do	1	2	3
30. Laugh to yourself in order to feel better	1	2	3

Note. * Items from the revenge seeking subscale were not included in the current study.

Emotion Dysregulation: Children's Emotion Management Scales (CEMS; Zeman, Shipman, & Penza-Clyve, 2001)

Instructions: Please circle the response that best describes your behavior when you are feeling **mad**.

	Hardly-ever	**Sometimes**	**Often**
1. I do things like slam doors when I am mad.	1	2	3
2. I attack whatever it is that makes me mad.	1	2	3
3. I say mean things to others when I am mad.	1	2	3

Instructions: Please circle the response that best describes your behavior when you are feeling **sad**.

	Hardly-ever	**Sometimes**	**Often**
1. I whine/fuss about what's making me sad.	1	2	3
2. I cry and carry on when I'm sad.	1	2	3
3. I do things like mope around when I'm sad.	1	2	3

Peer Victimization: Peer Experiences Questionnaire (Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004; Vernberg, Jacobs, & Hershberger, 1999)

Instructions: Tell us how often each thing happened **since school started**.

	Never	**Once or Twice**	**A Few Times**	**About Once a Week**	**A Few Times a Week**
1. A kid hit, kicked, or pushed me in a mean way.	1	2	3	4	5
2. A kid said he or she was going to hurt me or beat me up.	1	2	3	4	5
3. A kid grabbed, held, or touched me in a way I didn't like.	1	2	3	4	5
4. A kid chased me like he or she was really trying to hurt me.	1	2	3	4	5
5. A kid teased me in a mean way.	1	2	3	4	5
6. A kid ignored me on purpose to hurt my feelings.	1	2	3	4	5
7. A kid told lies about me so other kids wouldn't like me.	1	2	3	4	5
8. Some kids left me out of things just to be mean to me.	1	2	3	4	5
9. Some kids "ganged up" against me and were mean to me.	1	2	3	4	5

Appendix B: Measurement Model Parameters

Table B1

Final Model Parameters for Adult Support Seeking Variable

		Discrimination a	Difficulty b	Standardized Loading	Standardized Threshold	R^2
Item 9		1.77		.70		.49
	1 vs 2,3		–1.35		–0.94	
	1,2 vs 3		–0.30		–0.21	
Item 19		1.89		.72		.52
	1 vs 2,3		–1.37		–0.99	
	1,2 vs 3		–0.14		–0.10	
Item 25		2.10		.76		.57
	1 vs 2,3		–1.16		–0.88	
	1,2 vs 3		0.21		0.16	
Item 29		3.62		.89		.80
	1 vs 2,3		–0.89		–0.80	
	1,2 vs 3		0.04		0.03	

Table B2

Final Model Parameters for Friend Support Seeking Variable

		Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
		a	b			
Item 3		2.00		.74		.55
	1 vs 2,3		–0.81		–0.60	
	1,2 vs 3		0.37		0.27	
Item 8		2.00		.74		.55
	1 vs 2,3		–0.51		–0.38	
	1,2 vs 3		0.85		0.63	

Table B3

Final Model Parameters for Problem Solving Variable

	Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
	a	b			
Item 2	1.14		.53		.28
1 vs 2,3		–1.34		–0.71	
1,2 vs 3		0.27		0.14	
Item 18	2.16		.77		.59
1 vs 2,3		–0.68		–0.52	
1,2 vs 3		0.60		0.46	
Item 24	1.28		.58		.33
1 vs 2,3		–0.73		–0.42	
1,2 vs 3		0.91		0.52	

Table B4

Final Model Parameters for Humor Variable

	Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
	a	b			
Item 6	1.14		.53		.28
1 vs 2,3		1.31		0.70	
1,2 vs 3		2.43		1.30	
Item 12	1.43		.62		.38
1 vs 2,3		1.04		0.65	
1,2 vs 3		2.11		1.31	
Item 16	1.90		.72		.52
1 vs 2,3		0.51		0.37	
1,2 vs 3		1.69		1.22	
Item 22	2.22		.77		.60
1 vs 2,3		0.61		0.47	
1,2 vs 3		1.73		1.34	
Item 26	2.08		.75		.57
1 vs 2,3		0.36		0.27	
1,2 vs 3		1.57		1.18	
Item 30	2.10		.76		.57
1 vs 2,3		0.11		0.08	
1,2 vs 3		1.12		0.84	

Table B5

Final Model Parameters for Passive Coping Variable Among Boys

	Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
	a	b			
Item 5	0.56		.29		.09
1 vs 2,3		0.62		0.18	
1,2 vs 3		3.60		1.05	
Item 11	1.54		.65		.42
1 vs 2,3		0.54		0.35	
1,2 vs 3		1.77		1.14	
Item 15	1.10		.52		.27
1 vs 2,3		0.08		0.04	
1,2 vs 3		2.05		1.06	
Item 17	0.84		.42		.18
1 vs 2,3		–0.29		–0.12	
1,2 vs 3		1.95		0.82	
Item 21	1.08		.51		.26
1 vs 2,3		1.11		0.57	
1,2 vs 3		2.90		1.48	
Item 28	1.08		.51		.26
1 vs 2,3		0.61		0.31	
1,2 vs 3		2.36		1.21	

Table B6

Final Model Parameters for Passive Coping Variable Among Girls

	Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
	a	b			
Item 5	0.68		.35		.12
1 vs 2,3		0.48		0.18	
1,2 vs 3		2.93		1.03	
Item 11	1.88		.72		.52
1 vs 2,3		0.42		0.32	
1,2 vs 3		1.43		1.04	
Item 15	1.34		.59		.35
1 vs 2,3		–0.93		–0.54	
1,2 vs 3		1.42		0.86	
Item 17	1.03		.49		.24
1 vs 2,3		–0.26		–0.12	
1,2 vs 3		1.58		0.79	
Item 21	1.31		.58		.34
1 vs 2,3		0.89		0.53	
1,2 vs 3		2.36		1.39	
Item 28	1.31		.59		.34
1 vs 2,3		0.47		0.29	
1,2 vs 3		1.92		1.14	

Table B7

Final Model Parameters for Cognitive Distancing Variable Among Boys and Girls

	Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
	a	b			
Boys:					
Item 1	1.13		.53		.28
1 vs 2,3		–0.14		–0.08	
1,2 vs 3		1.87		0.99	
Item 7	1.17		.54		.29
1 vs 2,3		–0.31		–0.17	
1,2 vs 3		1.22		0.66	
Item 13	1.54		.65		.42
1 vs 2,3		–0.15		–0.10	
1,2 vs 3		1.10		0.71	
Item 23	1.30		.58		.34
1 vs 2,3		0.31		0.18	
1,2 vs 3		1.27		0.74	
Girls:					
Item 1	1.01		.48		.24
1 vs 2,3		–0.11		–0.08	
1,2 vs 3		2.16		1.02	
Item 7	1.04		.50		.25
1 vs 2,3		–0.29		–0.17	
1,2 vs 3		1.43		0.68	
Item 13	1.37		.60		.36
1 vs 2,3		–0.57		–0.38	
1,2 vs 3		1.52		0.88	
Item 23	1.16		.54		.29
1 vs 2,3		–0.10		–0.08	
1,2 vs 3		1.90		0.99	

Table B8

Final Model Parameters for Anger Dysregulation Variable

	Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
	a	b			
Item 1	1.91		.73		.53
1 vs 2,3		0.18		0.13	
1,2 vs 3		1.11		0.81	
Item 2	2.42		.80		.64
1 vs 2,3		0.84		0.67	
1,2 vs 3		1.48		1.18	
Item 3	2.02		.74		.55
1 vs 2,3		0.85		0.64	
1,2 vs 3		1.68		1.25	

Table B9

Final Model Parameters for Sadness Dysregulation Variable

	Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
	a	b			
Item 1	1.70		.68		.47
1 vs 2,3		0.47		0.32	
1,2 vs 3		1.60		1.09	
Item 2	1.47		.63		.40
1 vs 2,3		0.07		0.04	
1,2 vs 3		1.18		0.74	
Item 3	2.00		.74		.55
1 vs 2,3		0.47		0.35	
1,2 vs 3		1.53		1.13	

Table B10

Final Model Parameters for Time 1 Peer Victimization Variable Among Boys

	Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
	a	b			
Item 1	1.80		.70		.50
1 vs 2,3,4,5		0.42		0.29	
1,2 vs 3,4,5		1.25		0.88	
1,2,3 vs 4,5		1.89		1.33	
1,2,3,4 vs 5		2.08		1.47	
Item 2	1.68		.68		.46
1 vs 2,3,4,5		0.53		0.36	
1,2 vs 3,4,5		1.50		1.02	
1,2,3 vs 4,5		2.24		1.52	
1,2,3,4 vs 5		2.76		1.88	
Item 3	1.65		.67		.45
1 vs 2,3,4,5		0.13		0.08	
1,2 vs 3,4,5		1.22		0.82	
1,2,3 vs 4,5		1.80		1.21	
1,2,3,4 vs 5		2.31		1.56	
Item 4	1.94		.73		.53
1 vs 2,3,4,5		0.44		0.32	
1,2 vs 3,4,5		1.12		0.82	
1,2,3 vs 4,5		1.68		1.22	
1,2,3,4 vs 5		2.03		1.48	
Item 5	1.74		.69		.48
1 vs 2,3,4,5		0.25		0.17	
1,2 vs 3,4,5		1.12		0.77	
1,2,3 vs 4,5		1.79		1.24	
1,2,3,4 vs 5		2.07		1.43	
Item 6	1.62		.67		.44
1 vs 2,3,4,5		0.23		0.15	
1,2 vs 3,4,5		1.16		0.77	
1,2,3 vs 4,5		1.80		1.20	
1,2,3,4 vs 5		2.14		1.42	
Item 7	1.85		.71		.51
1 vs 2,3,4,5		0.48		0.34	
1,2 vs 3,4,5		1.19		0.85	
1,2,3 vs 4,5		1.48		1.05	
1,2,3,4 vs 5		1.79		1.28	
Item 8	2.18		.77		.59
1 vs 2,3,4,5		0.31		0.24	
1,2 vs 3,4,5		1.10		0.84	
1,2,3 vs 4,5		1.58		1.21	
1,2,3,4 vs 5		1.79		1.38	
Item 9	2.25		.78		.61
1 vs 2,3,4,5		0.74		0.58	
1,2 vs 3,4,5		1.35		1.05	
1,2,3 vs 4,5		1.75		1.36	
1,2,3,4 vs 5		1.98		1.54	

Table B11

Final Model Parameters for Time 2 Peer Victimization Variable Among Boys

	Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
	a	b			
Item 1	2.01		.74		.55
1 vs 2,3,4,5		0.32		0.04	
1,2 vs 3,4,5		1.23		0.71	
1,2,3 vs 4,5		1.94		1.24	
1,2,3,4 vs 5		2.14		1.39	
Item 2	1.87		.72		.52
1 vs 2,3,4,5		0.74		0.34	
1,2 vs 3,4,5		1.62		0.97	
1,2,3 vs 4,5		2.28		1.45	
1,2,3,4 vs 5		2.75		1.78	
Item 3	1.84		.71		.51
1 vs 2,3,4,5		0.00		–0.19	
1,2 vs 3,4,5		1.10		0.59	
1,2,3 vs 4,5		2.21		1.38	
1,2,3,4 vs 5		2.90		1.87	
Item 4	2.16		.77		.59
1 vs 2,3,4,5		0.67		0.30	
1,2 vs 3,4,5		1.27		0.77	
1,2,3 vs 4,5		1.78		1.15	
1,2,3,4 vs 5		2.09		1.40	
Item 5	1.94		.73		.53
1 vs 2,3,4,5		0.49		0.16	
1,2 vs 3,4,5		1.27		0.73	
1,2,3 vs 4,5		1.88		1.17	
1,2,3,4 vs 5		2.13		1.36	
Item 6	1.80		.70		.50
1 vs 2,3,4,5		0.48		0.15	
1,2 vs 3,4,5		1.31		0.74	
1,2,3 vs 4,5		1.89		1.14	
1,2,3,4 vs 5		2.19		1.35	
Item 7	2.06		.75		.56
1 vs 2,3,4,5		0.86		0.44	
1,2 vs 3,4,5		1.35		0.81	
1,2,3 vs 4,5		1.94		1.25	
1,2,3,4 vs 5		2.24		1.47	
Item 8	2.43		.80		.64
1 vs 2,3,4,5		0.55		0.22	
1,2 vs 3,4,5		1.26		0.79	
1,2,3 vs 4,5		1.69		1.13	
1,2,3,4 vs 5		1.88		1.29	
Item 9	2.50		.81		.66
1 vs 2,3,4,5		0.94		0.54	
1,2 vs 3,4,5		1.48		0.98	
1,2,3 vs 4,5		1.84		1.27	
1,2,3,4 vs 5		2.05		1.44	

Table B12

Final Model Parameters for Time 3 Peer Victimization Variable Among Boys

	Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
	a	b			
Item 1	2.38		.80		.63
1 vs 2,3,4,5		0.68		0.13	
1,2 vs 3,4,5		1.21		0.56	
1,2,3 vs 4,5		1.92		1.13	
1,2,3,4 vs 5		2.47		1.56	
Item 2	2.22		.77		.60
1 vs 2,3,4,5		0.91		0.31	
1,2 vs 3,4,5		1.64		0.88	
1,2,3 vs 4,5		2.20		1.31	
1,2,3,4 vs 5		2.60		1.62	
Item 3	2.18		.77		.59
1 vs 2,3,4,5		0.24		–0.21	
1,2 vs 3,4,5		1.39		0.68	
1,2,3 vs 4,5		2.00		1.15	
1,2,3,4 vs 5		2.30		1.38	
Item 4	2.56		.82		.67
1 vs 2,3,4,5		0.84		0.27	
1,2 vs 3,4,5		1.35		0.69	
1,2,3 vs 4,5		1.78		1.03	
1,2,3,4 vs 5		2.04		1.25	
Item 5	2.30		.78		.62
1 vs 2,3,4,5		0.69		0.15	
1,2 vs 3,4,5		1.35		0.66	
1,2,3 vs 4,5		1.86		1.06	
1,2,3,4 vs 5		2.07		1.23	
Item 6	2.14		.76		.58
1 vs 2,3,4,5		0.68		0.13	
1,2 vs 3,4,5		1.39		0.67	
1,2,3 vs 4,5		1.87		1.04	
1,2,3,4 vs 5		2.12		1.23	
Item 7	2.44		.80		.64
1 vs 2,3,4,5		0.60		0.07	
1,2 vs 3,4,5		1.37		0.69	
1,2,3 vs 4,5		1.94		1.15	
1,2,3,4 vs 5		2.02		1.22	
Item 8	2.88		.85		.72
1 vs 2,3,4,5		0.74		0.20	
1,2 vs 3,4,5		1.34		0.70	
1,2,3 vs 4,5		1.70		1.01	
1,2,3,4 vs 5		1.86		1.15	
Item 9	2.97		.85		.73
1 vs 2,3,4,5		1.07		0.48	
1,2 vs 3,4,5		1.53		0.87	
1,2,3 vs 4,5		1.83		1.13	
1,2,3,4 vs 5		—		—	

Table B13

Final Model Parameters for Time 1 Peer Victimization Variable Among Girls

	Discrimination a	Difficulty b	Standardized Loading	Standardized Threshold	R^2
Item 1	2.03		.75		.56
1 vs 2,3,4,5		0.58		0.28	
1,2 vs 3,4,5		1.32		0.83	
1,2,3 vs 4,5		1.89		1.25	
1,2,3,4 vs 5		2.06		1.38	
Item 2	1.90		.72		.52
1 vs 2,3,4,5		0.68		0.34	
1,2 vs 3,4,5		1.54		0.96	
1,2,3 vs 4,5		2.20		1.44	
1,2,3,4 vs 5		2.66		1.77	
Item 3	1.86		.72		.51
1 vs 2,3,4,5		0.32		0.08	
1,2 vs 3,4,5		1.30		0.78	
1,2,3 vs 4,5		1.81		1.14	
1,2,3,4 vs 5		2.26		1.47	
Item 4	2.19		.77		.59
1 vs 2,3,4,5		0.60		0.30	
1,2 vs 3,4,5		1.20		0.76	
1,2,3 vs 4,5		1.70		1.14	
1,2,3,4 vs 5		2.01		1.39	
Item 5	1.96		.73		.54
1 vs 2,3,4,5		0.07		–0.11	
1,2 vs 3,4,5		1.02		0.60	
1,2,3 vs 4,5		1.67		1.07	
1,2,3,4 vs 5		1.94		1.27	
Item 6	1.83		.71		.50
1 vs 2,3,4,5		–0.04		–0.18	
1,2 vs 3,4,5		0.97		0.53	
1,2,3 vs 4,5		1.73		1.08	
1,2,3,4 vs 5		2.27		1.46	
Item 7	2.08		.75		.57
1 vs 2,3,4,5		0.64		0.32	
1,2 vs 3,4,5		1.27		0.79	
1,2,3 vs 4,5		1.52		0.99	
1,2,3,4 vs 5		1.80		1.20	
Item 8	2.46		.81		.65
1 vs 2,3,4,5		0.24		0.02	
1,2 vs 3,4,5		1.21		0.81	
1,2,3 vs 4,5		1.65		1.16	
1,2,3,4 vs 5		2.05		1.48	
Item 9	2.54		.81		.66
1 vs 2,3,4,5		0.87		0.54	
1,2 vs 3,4,5		1.41		0.97	
1,2,3 vs 4,5		1.76		1.26	
1,2,3,4 vs 5		1.97		1.43	

Table B14

Final Model Parameters for Time 2 Peer Victimization Variable Among Girls

	Discrimination a	Difficulty b	Standardized Loading	Standardized Threshold	R^2
Item 1	2.37		.79		.63
1 vs 2,3,4,5		0.68		0.03	
1,2 vs 3,4,5		1.45		0.65	
1,2,3 vs 4,5		2.05		1.13	
1,2,3,4 vs 5		2.22		1.26	
Item 2	2.21		.77		.60
1 vs 2,3,4,5		1.04		0.31	
1,2 vs 3,4,5		1.78		0.88	
1,2,3 vs 4,5		2.34		1.32	
1,2,3,4 vs 5		2.74		1.62	
Item 3	2.17		.77		.59
1 vs 2,3,4,5		0.41		–0.17	
1,2 vs 3,4,5		1.34		0.54	
1,2,3 vs 4,5		2.28		1.26	
1,2,3,4 vs 5		2.86		1.71	
Item 4	2.55		.81		.66
1 vs 2,3,4,5		0.97		0.27	
1,2 vs 3,4,5		1.49		0.69	
1,2,3 vs 4,5		1.91		1.04	
1,2,3,4 vs 5		2.18		1.26	
Item 5	2.29		.78		.61
1 vs 2,3,4,5		0.51		–0.10	
1,2 vs 3,4,5		1.33		0.55	
1,2,3 vs 4,5		1.89		0.98	
1,2,3,4 vs 5		2.12		1.16	
Item 6	2.13		.76		.58
1 vs 2,3,4,5		0.42		–0.17	
1,2 vs 3,4,5		1.28		0.49	
1,2,3 vs 4,5		1.94		0.99	
1,2,3,4 vs 5		2.40		1.34	
Item 7	2.43		.80		.64
1 vs 2,3,4,5		1.14		0.40	
1,2 vs 3,4,5		1.55		0.73	
1,2,3 vs 4,5		2.05		1.13	
1,2,3,4 vs 5		2.30		1.33	
Item 8	2.87		.85		.71
1 vs 2,3,4,5		0.66		0.02	
1,2 vs 3,4,5		1.50		0.73	
1,2,3 vs 4,5		1.87		1.04	
1,2,3,4 vs 5		2.21		1.33	
Item 9	2.96		.85		.73
1 vs 2,3,4,5		1.20		0.48	
1,2 vs 3,4,5		1.66		0.87	
1,2,3 vs 4,5		1.96		1.13	
1,2,3,4 vs 5		2.14		1.28	

Table B15

Final Model Parameters for Time 3 Peer Victimization Variable Among Girls

	Discrimination	Difficulty	Standardized Loading	Standardized Threshold	R^2
	a	b			
Item 1	1.88		.72		.52
1 vs 2,3,4,5		0.54		–0.15	
1,2 vs 3,4,5		1.65		0.64	
1,2,3 vs 4,5		2.55		1.29	
1,2,3,4 vs 5		3.24		1.79	
Item 2	1.76		.70		.48
1 vs 2,3,4,5		1.26		0.35	
1,2 vs 3,4,5		2.19		1.00	
1,2,3 vs 4,5		2.90		1.49	
1,2,3,4 vs 5		3.40		1.84	
Item 3	1.73		.69		.48
1 vs 2,3,4,5		0.42		–0.23	
1,2 vs 3,4,5		1.87		0.77	
1,2,3 vs 4,5		2.64		1.30	
1,2,3,4 vs 5		3.02		1.56	
Item 4	2.03		.75		.56
1 vs 2,3,4,5		1.18		0.31	
1,2 vs 3,4,5		1.83		0.80	
1,2,3 vs 4,5		2.36		1.19	
1,2,3,4 vs 5		2.70		1.45	
Item 5	1.82		.71		.50
1 vs 2,3,4,5		0.60		–0.11	
1,2 vs 3,4,5		1.63		0.62	
1,2,3 vs 4,5		2.33		1.11	
1,2,3,4 vs 5		2.62		1.32	
Item 6	1.69		.68		.46
1 vs 2,3,4,5		0.48		–0.19	
1,2 vs 3,4,5		1.57		0.56	
1,2,3 vs 4,5		2.40		1.12	
1,2,3,4 vs 5		2.98		1.51	
Item 7	1.93		.73		.53
1 vs 2,3,4,5		0.87		0.08	
1,2 vs 3,4,5		1.84		0.79	
1,2,3 vs 4,5		2.57		1.32	
1,2,3,4 vs 5		2.67		1.40	
Item 8	2.28		.78		.61
1 vs 2,3,4,5		0.79		0.03	
1,2 vs 3,4,5		1.84		0.85	
1,2,3 vs 4,5		2.31		1.22	
1,2,3,4 vs 5		2.74		1.55	
Item 9	2.35		.79		.63
1 vs 2,3,4,5		1.47		0.56	
1,2 vs 3,4,5		2.04		1.02	
1,2,3 vs 4,5		2.43		1.32	
1,2,3,4 vs 5		—		—	

Table B16

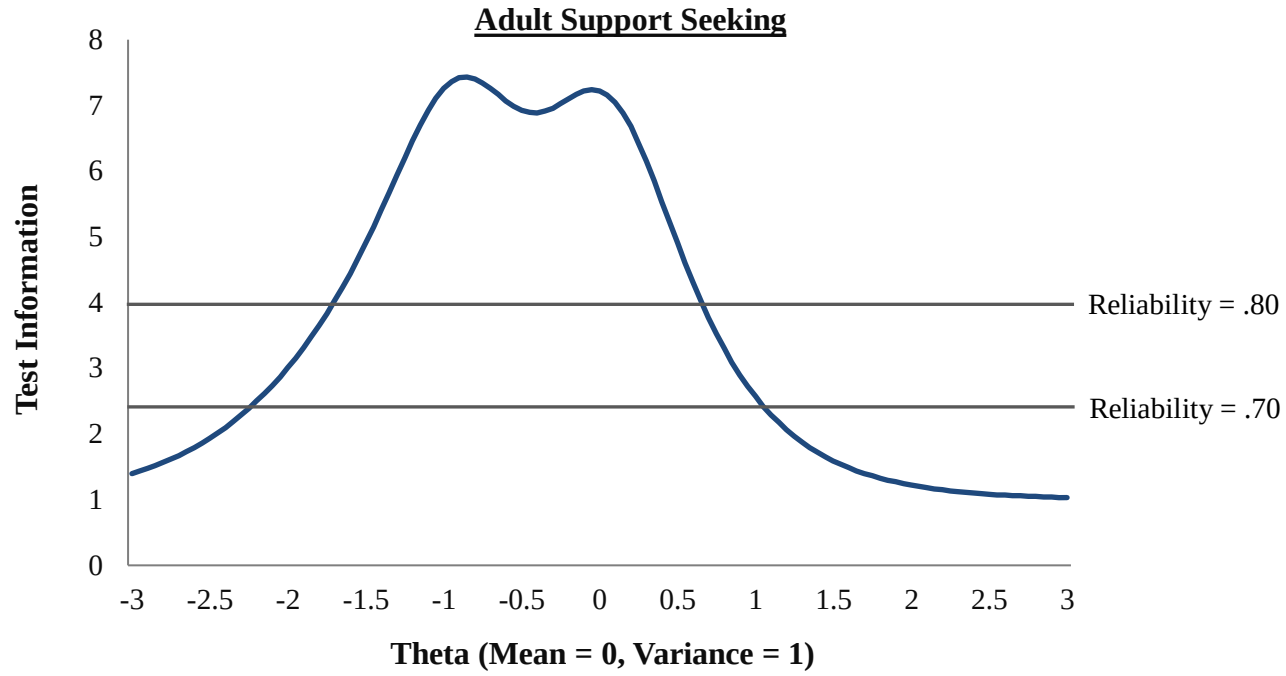
Correlations Between Variable Factor Scores and Mean Scores

	Correlation (*r*)	Shared Variance (%)
Adult Support Seeking	.98	96%
Friend Support Seeking	.98	96%
Problem Solving	.95	91%
Humor	.97	93%
Passive Coping	.96	93%
Cognitive Distancing	.99	98%
Anger Dysregulation	.98	96%
Sadness Dysregulation	.97	95%
Time 1 Peer Victimization	.91	83%
Time 2 Peer Victimization	.88	77%
Time 3 Peer Victimization	.88	78%

Note. Factor scores were created using item response theory measurement models; mean scores were created by averaging across the items for each variable.

Appendix C: Test information Curves

(a)



(b)

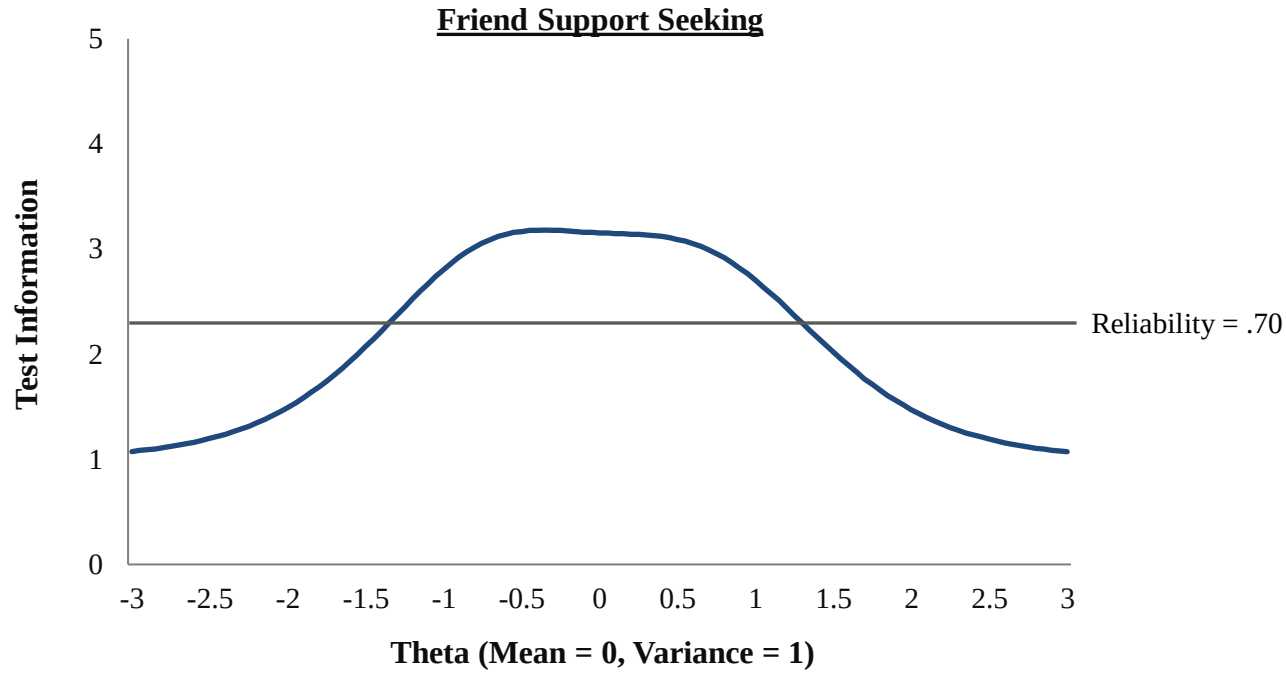
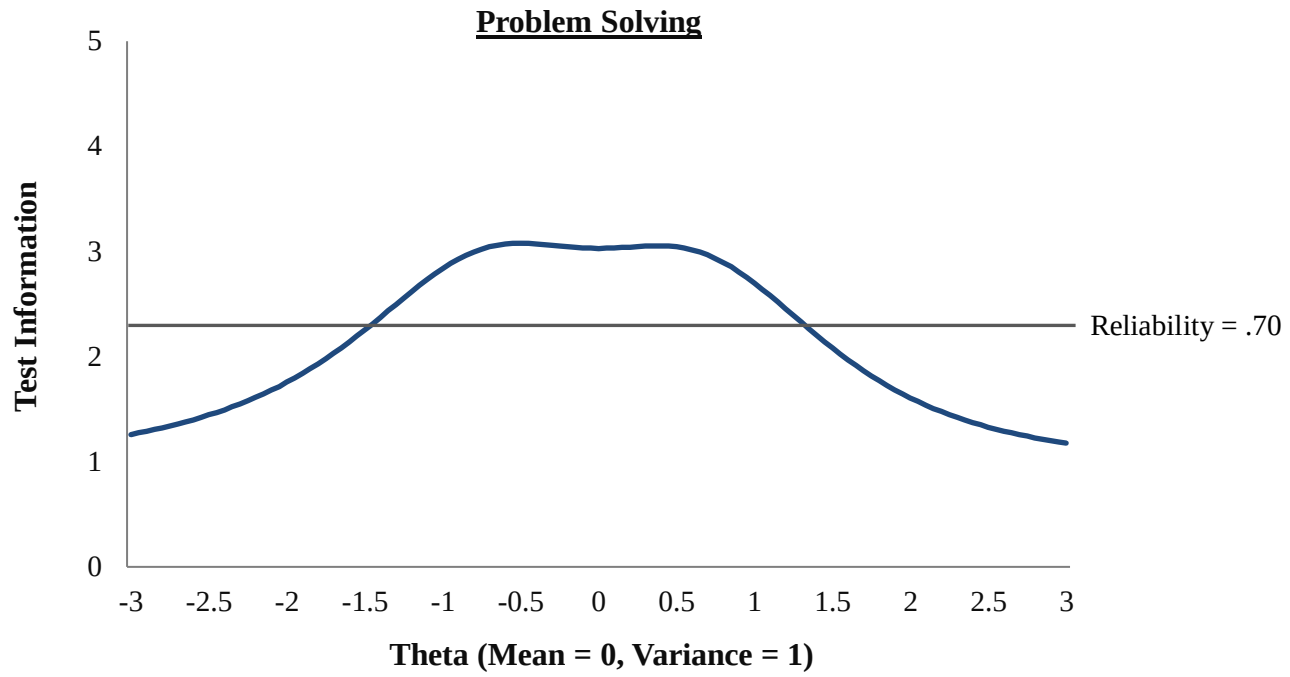


Figure C1 (a-b). Test information curves for adult support seeking and friend support seeking variables.

(a)



(b)

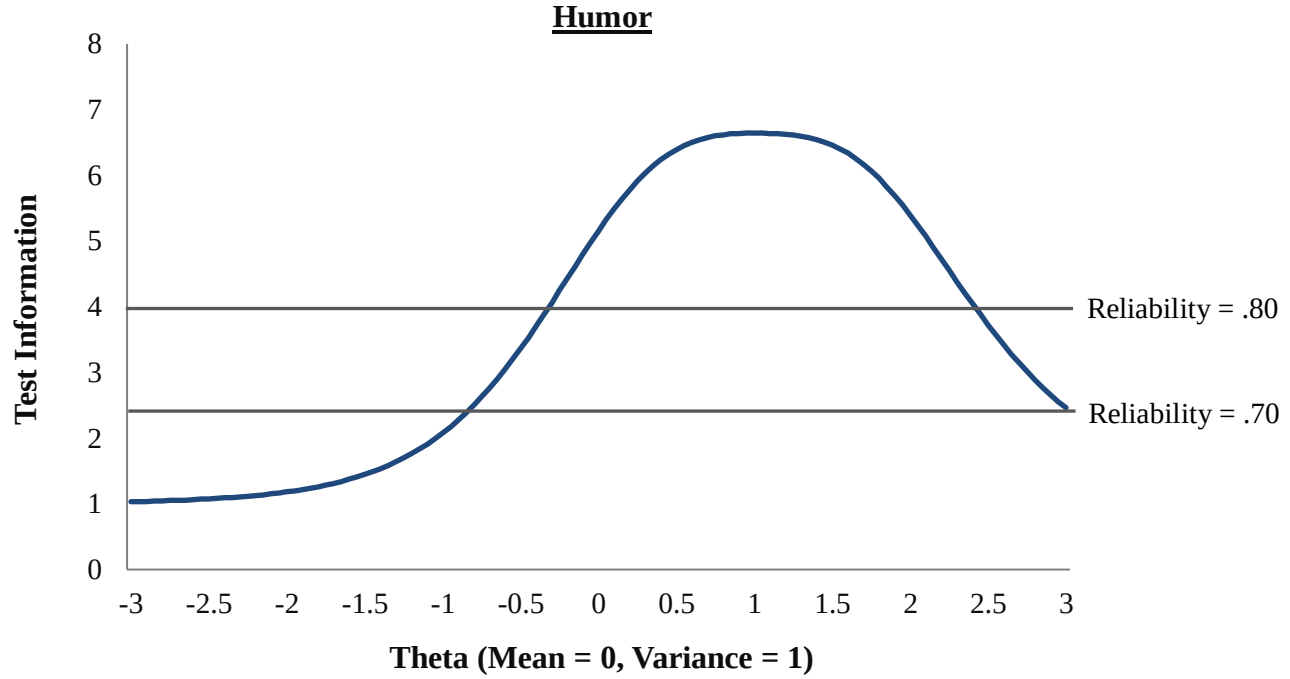
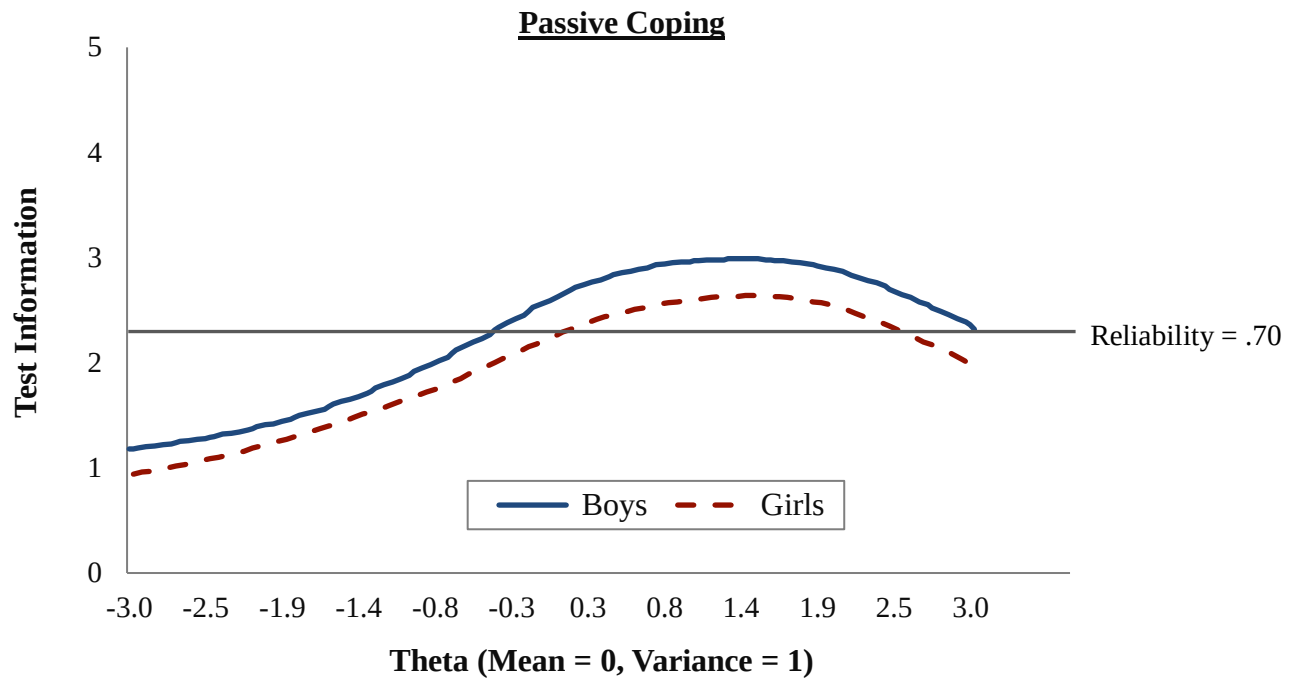


Figure C2 (a-b). Test information curves for problem solving and humor variables.

(a)



(b)

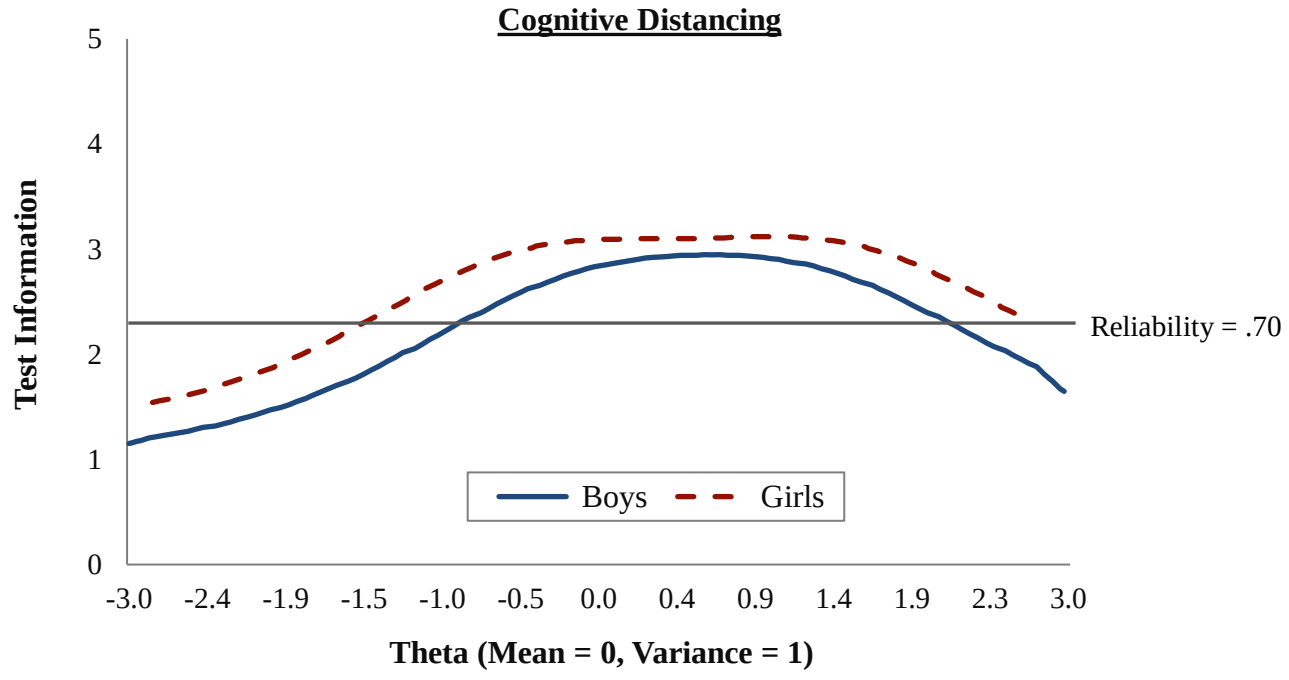


Figure C3 (a-b). Test information curves for passive coping and cognitive distancing variables.

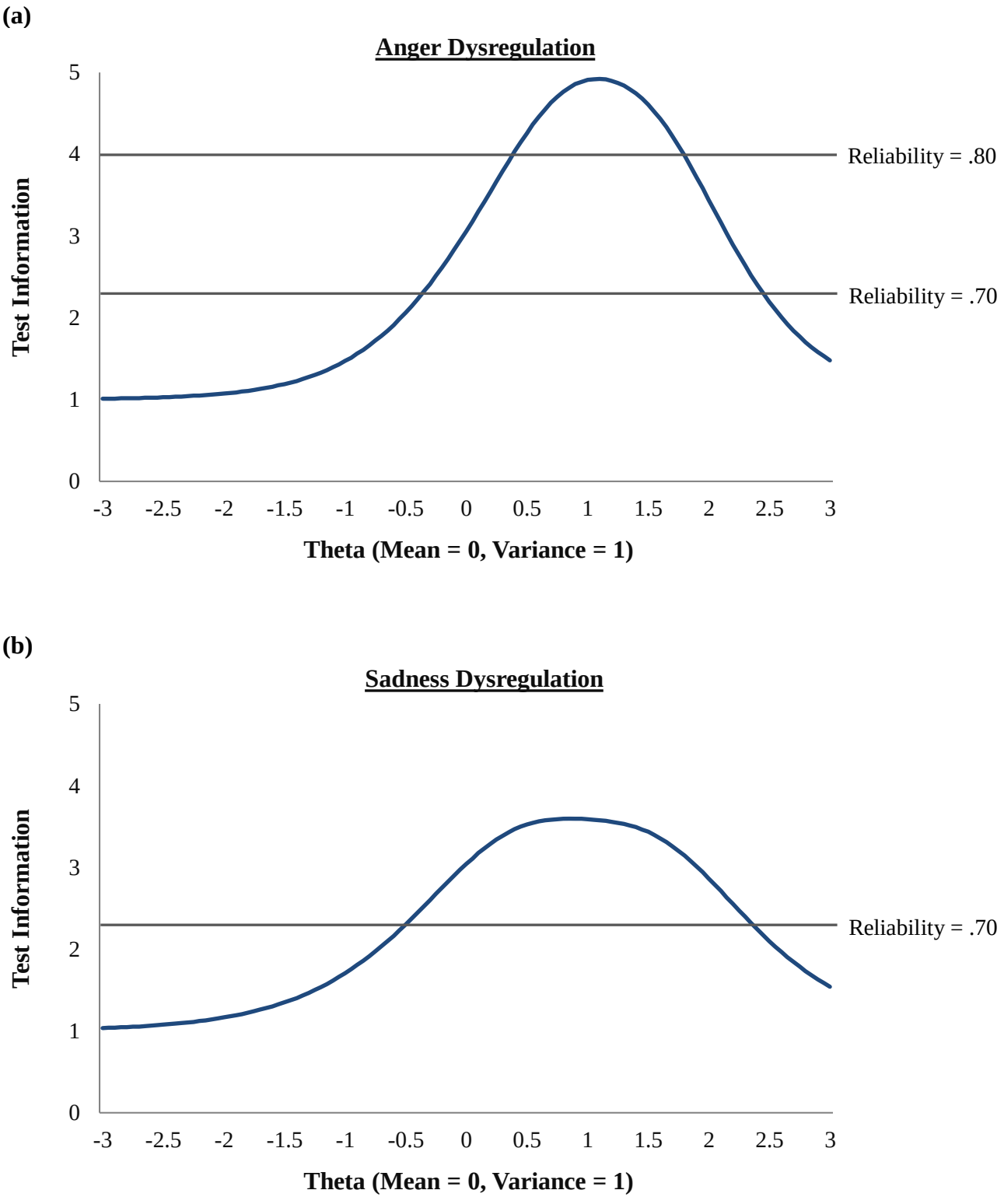
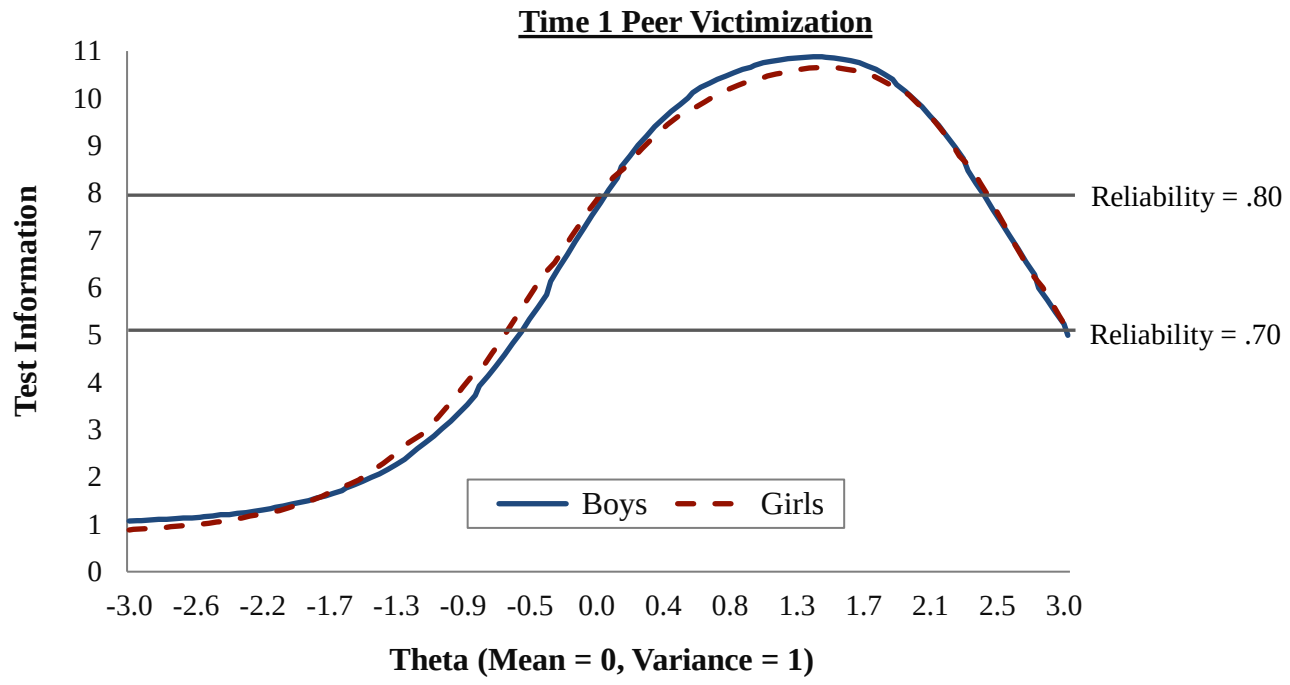


Figure C4 (a-b). Test information curves for anger dysregulation and sadness dysregulation variables.

(a)



(b)

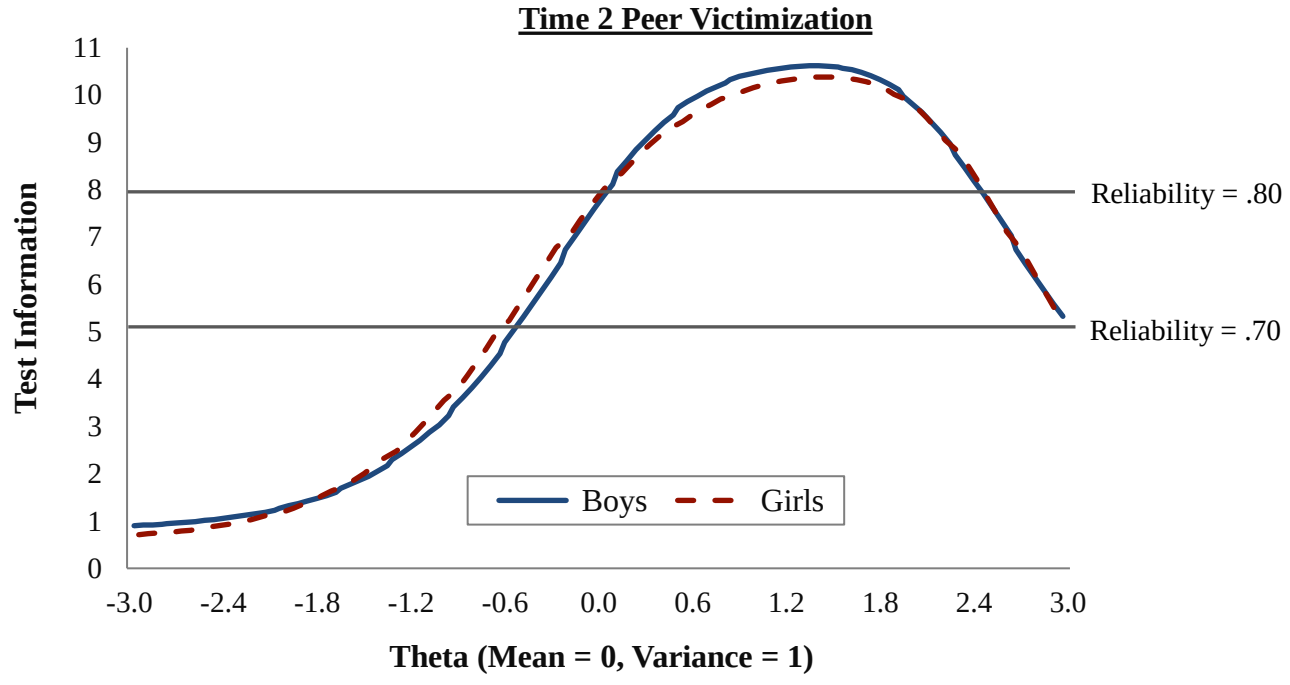


Figure C5 (a-b). Test information curves for Time 1 and Time 2 peer victimization variables.

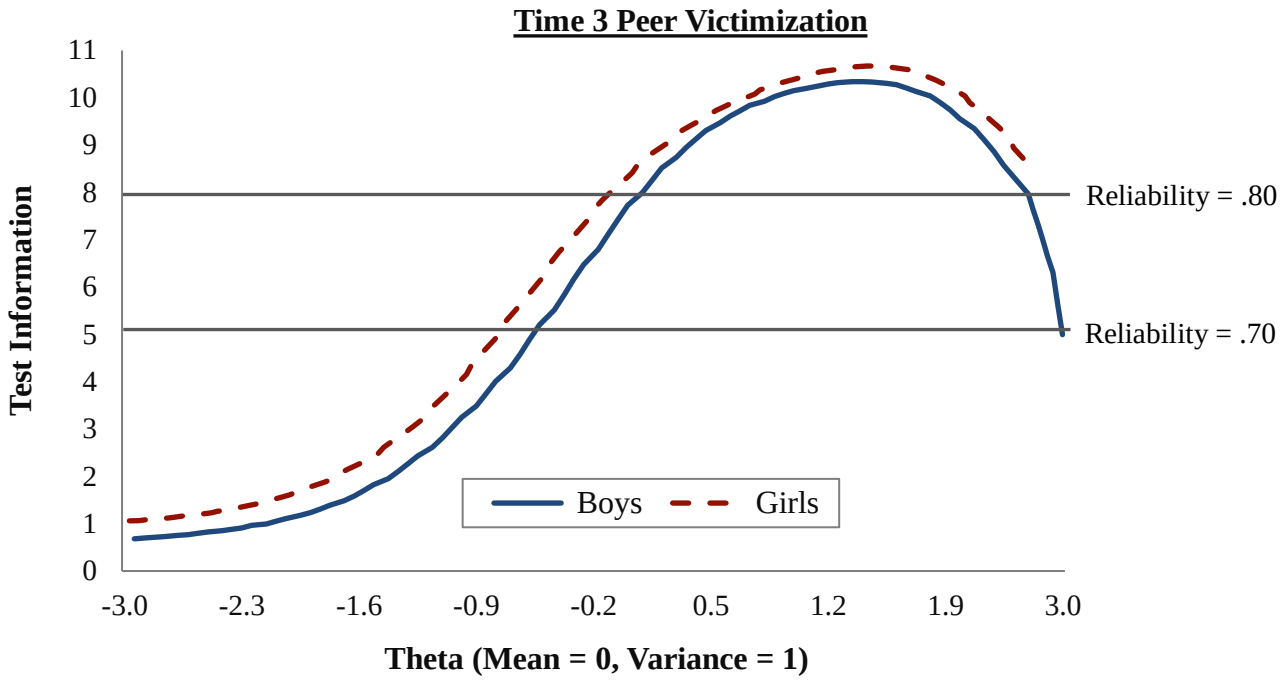


Figure C6. Test information curve for Time 3 peer victimization variable.

Appendix D: Independent Main Effects Models

Table D1

Main Effects of Adult Support Seeking, Friend Support Seeking, and Problem Solving on Concurrent Levels and Trajectories of Peer Victimization

	Random Intercept			Fixed Linear Slope		
	b	*SE*	*p*	*b*	*SE*	*p*
Model 1:						
Time	—	—	—	**–.36**	**.05**	**< .001**
Gender	**–.34**	**.11**	**.002**	.05	.04	.18
Grade	–.24	.13	.07	.08	.06	.22
Adult Support Seeking	**.11**	**.06**	**.05**	–.03	.02	.13
Model 2:						
Time	—	—	—	**–.37**	**.05**	**< .001**
Gender	**–.42**	**.11**	**< .001**	.07	.04	.10
Grade	**–.26**	**.13**	**.04**	.08	.06	.18
Friend Support Seeking	**.20**	**.06**	**< .001**	–.04	.02	.06
Model 3:						
Time	—	—	—	**–.36**	**.05**	**< .001**
Gender	**–.37**	**.11**	**.001**	.06	.04	.14
Grade	–.24	.13	.07	.08	.06	.21
Problem Solving	**.14**	**.06**	**.01**	–.03	.02	.10

Note. Gender (0 = Boys, 1 = Girls); Grade (0 = Second grade, 1 = Third grade); Bold estimates represent statistically significant paths ($p < .05$).

Table D2

Main Effects of Humor, Passive Coping, and Cognitive Distancing on Concurrent Levels and Trajectories of Peer Victimization

	Random Intercept			Fixed Linear Slope		
	b	*SE*	*p*	*b*	*SE*	*p*
Model 4:						
Time	—	—	—	**–.36**	**.05**	**< .001**
Gender	**–.33**	**.11**	**.002**	.05	.04	.20
Grade	**–.26**	**.13**	**.05**	.08	.06	.21
Humor	**.17**	**.06**	**.002**	–.01	.02	.48
Model 5:						
Time	—	—	—	**–.36**	**.05**	**< .001**
Gender	**–.35**	**.10**	**< .001**	.05	.04	.19
Grade	–.23	.12	.06	.07	.06	.23
Passive Coping	**.43**	**.05**	**< .001**	–.04	.02	.06
Model 6:						
Time	—	—	—	**–.36**	**.05**	**< .001**
Gender	**–.32**	**.11**	**.004**	.05	.04	.23
Grade	–.24	.13	.06	.08	.06	.21
Cognitive Distancing	**.23**	**.05**	**< .001**	**–.05**	**.02**	**.01**

Note. Gender (0 = Boys, 1 = Girls); Grade (0 = Second grade, 1 = Third grade); Bold estimates represent statistically significant paths ($p < .05$).

Table D3

Main Effects of Anger Dysregulation and Sadness Dysregulation on Concurrent Levels and Trajectories of Peer Victimization

	Random Intercept			Fixed Linear Slope		
	b	*SE*	*p*	*b*	*SE*	*p*
Model 7:						
Time	—	—	—	**–.35**	**.05**	**< .001**
Gender	**–.22**	**.11**	**.05**	.04	.04	.29
Grade	–.22	.13	.09	.07	.06	.25
Anger Dysregulation	**.30**	**.05**	**< .001**	–.02	.02	.35
Model 8:						
Time	—	—	—	**–.36**	**.05**	**< .001**
Gender	**–.36**	**.11**	**.001**	.05	.04	.19
Grade	-.23	.13	.08	.07	.06	.23
Sadness Dysregulation	**.15**	**.06**	**.007**	-.01	.02	.78

Note. Gender (0 = Boys, 1 = Girls); Grade (0 = Second grade, 1 = Third grade); Bold estimates represent statistically significant paths ($p < .05$).