Pilot evaluation of a targeted intervention for peer-victimized youth

Paula J. Fite, John L. Cooley, Jonathan Poquiz, Anne Williford

Abstract

Objective: Due to the limited effectiveness of extant prevention and intervention strategies, the current study is an initial evaluation of a cognitive behavioral group intervention, originally designed to treat symptoms of depression and anxiety, for youth who experienced peer victimization.

Methods: Twelve third- through fifth-grade youth participated in the intervention, and their data were compared with 12 youth who were a part of a naturalistic control group. Additionally, school-wide data are reported to provide overall school trends.

Results: Whereas the intervention group participants exhibited decreases in relational victimization, depressive symptoms, and passive coping, the control group participants exhibited nonsignificant increases in relational victimization, depressive symptoms, and passive coping. School-wide data also indicated overall increases in relational victimization and depressive symptoms, but no changes in passive coping.

Conclusion: Findings suggest that cognitive behavioral group interventions may provide a promising avenue for addressing the mental health needs of victimized elementary school-age youth.

Keywords
cognitive behavioral intervention, middle childhood, peer victimization
Peer victimization is a relationship-based pattern of behavior that involves the use of bullying and other aggressive acts to intentionally oppress, humiliate or dominate others (CDC, 2012; Vernberg & Biggs, 2010). Peer victimization occurs frequently in school settings (Bradshaw, Sawyer, & O’Brennan, 2007; Kochenderfer-Ladd & Wardrop, 2001; Nansel et al., 2001), with stable patterns found over time for both the aggressor and victim (Bettencourt, Farrell, Liu, & Sullivan, 2012; Camodeca, Goossens, Terwogt, & Schuengel, 2002). Patterns of victimization begin early in development, and the majority of children will be victimized at some point during the elementary school years (Cooley, Fite, & Pederson, 2018; Kochenderfer-Ladd & Wardrop, 2001; Ladd, Ettekal, & Kochenderfer-Ladd, 2017). A considerable body of research has shown that such experiences are detrimental to child adjustment (Vernberg & Biggs, 2010); specifically, peer victimization has been associated with internalizing symptoms, suicidal ideation, academic difficulties, substance use, and behavior problems (Card & Hodges, 2008; Reijntjes et al., 2011; Reijntjes, Kamphuis, Prinzie, & Telch, 2010), and these effects may persist well into adulthood (McDougall & Vaillancourt, 2015). Consequently, a number of prevention and intervention strategies for peer aggression and victimization have been developed and evaluated worldwide over the last 20 years, with the majority of programs delivered at the universal level, targeting all students regardless of their level of risk (Jiménez-Barbero, Ruiz-Hernández, Llor-Zaragoza, Pérez-García, & LlorEsteban, 2016).

Although some universal programs, including social-emotional learning curricula and programs targeting youth violence, have demonstrated positive effects (Durlak, Weissberg, Dymnicki, Taylor, & Shellinger, 2011; Matjasko et al., 2012), many programs have produced only modest to marginal effects (Farrington & Ttofi, 2009; Jiménez-Barbero et al., 2016; Ttofi & Farrington, 2011). In fact, a recent meta-analysis investigating the impact of preventive interventions reported moderate effect sizes, concluding that beneficial yet discrete impacts are found for bullying and victimization outcomes (Jiménez-Barbero et al., 2016). However, programs implemented in the United States are often more limited in their effectiveness (Bradshaw, 2015), which may be due in part of methodological challenges related to implementation and fidelity. Furthermore, these meta-analyses often point to several factors, such as level of family involvement and individual characteristics (e.g., age) that may limit or bolster program effectiveness (Durlak et al., 2012; Matjasko et al., 2012; Yeager, Fong, Lee, & Espelage, 2015). The limited effects associated with many universal programs have led experts to call for the implementation of more intensive interventions for children at risk for peer victimization (Vernberg & Biggs, 2010); however, to our knowledge, only a few targeted interventions specifically for victimized youth have been evaluated (e.g., Chu, Hoffman, Johns, Reyes-Portillo, & Hansford, 2015). Thus, additional studies evaluating peer victimization interventions are needed.

Peer victimization and internalizing symptoms: The case for cognitive behavioral interventions

It is important to note that experiences of peer victimization and internalizing symptoms have been shown to be bidirectionally associated (Card, Isaacs, & Hodges, 2007; Schacter, White, Chang, & Juvonen, 2014). That is, individuals who do not regulate their emotions effectively tend to respond to peer aggression in ways that put them at risk for experiencing subsequent victimization; in turn, being victimized by peers, especially for children who experience more chronic patterns, is associated with increases in internalizing symptoms (i.e., depressed mood, social withdrawal, and anxiety) as well as aggression, poor academic achievement, and substance use (Bierman, 2004; Card et al., 2007; Coie, 1990; Grills-Taquechel, Polifroni, & Pane, 2010; Hawkins, Lishner, Catalano, & Howard, 1985; Hodges, Boivin, Vitaro, & Bukowski, 1999; Reijntjes et al., 2011; Vernberg, 1990).

Following experiences of victimization, youth tend to make attributions about why they were targeted by peers. In doing so, youth may blame themselves, perceiving the causes of these negative experiences to be internal, stable, and uncontrollable (Schacter et al., 2014). As a result, they may believe that there is nothing that can be done to
prevent peer victimization from happening again. Indeed, results from one study showed that self-blaming was linked to subsequent increases in peer victimization from the Fall to the Spring semester, and this tendency partially accounted for the continuity of peer victimization over time (Schacter et al., 2014). Other work also suggests that self-blaming exacerbates the prospective link between peer victimization and depressive symptoms (Perren, Ettekal, & Ladd, 2013). Taken together, these indicate that the negative attributions children make about themselves after aggressive encounters increase the likelihood that they will be victimized again and lead to increases in adjustment difficulties over time. Thus, Perren et al. (2013) suggest that interventions focused on changing youth’s attributions for peer victimization may reduce the negative outcomes of such experiences.

Cognitive behavioral interventions represent one potential avenue for addressing the mental health needs of victimized youth. These programs emphasize the use of cognitive restructuring, behavioral activation, and problem solving to decrease symptoms of depression and anxiety, which produce changes in cognitions (Chu & Harrison, 2007; Hollon, Stewart, & Strunk, 2006; Mattick, Peters, & Clarke, 1989). Thus, a targeted intervention for children experiencing high levels of peer victimization that focuses on changing negative (i.e., self-blaming) cognitions and implementing effective coping strategies to reduce negative emotions is expected to help prevent subsequent peer victimization and internalizing symptoms; however, we are aware of only one study that has evaluated a group-based cognitive behavioral intervention among victimized Chinese middle school students (Fung, in press). Results from this initial investigation were found to be promising, as participating youth exhibited declines in peer victimization, social exclusion, and internalizing symptoms 1 year later. An important extension of this study would be to examine the effects of a cognitive behavioral intervention with elementary school-age youth, when patterns of victimization become increasingly stable (Cooley et al., 2018; Kochenderfer-Ladd & Wardrop, 2001; Ladd et al., 2017).

Taking ACTION is a group-based cognitive behavioral intervention that focuses on problem solving, behavioral activation, coping skills, and positive self-evaluation by targeting negative cognitions among elementary school-age children (Stark & Kendall, 1996). In prior work, this program has been found to reduce both depressive and anxiety symptoms (Stark, Reynolds, & Kaslow, 1987; Stark, Rouse, & Livingston, 1991), and accordingly, this intervention may be useful in reducing the negative emotions and social withdrawal that victimized youth experience, ultimately preventing subsequent victimization.

3 | CURRENT STUDY

The current study was designed as a pilot evaluation of Taking ACTION as a preventive intervention with elementary school-age children experiencing high levels of physical and/or relational victimization, with the goal of providing participants with more effective coping strategies to reduce the stability and frequency of their peer victimization during the subsequent school year. Further, taking into account previous research indicating that early experiences of victimization are prospectively associated with increases in depressive symptoms, even after controlling for changes in peer victimization over time (Rudolph et al., 2011), our intervention also aimed to mitigate the impact of victimization on participants’ subsequent internalizing symptoms. It was hypothesized that youth who participated in the intervention would show reductions in peer victimization and internalizing (i.e., depressive and anxiety) symptoms as compared to a naturalistic control group. Data from those who participated in the intervention groups were also compared to school-wide data to situate intervention findings in the context of overall school climate and trends.

The current study also tested two proposed mechanisms of action for the intervention: passive coping and problem solving. Whereas passive coping represents an avoidance coping strategy that entails withdrawing, ruminating, and blaming oneself for a hostile encounter with a peer, problem solving is an approach coping strategy that involves trying to determine the cause of the victimization and develop a plan to prevent it from happening again (Causey & Dubow, 1992). A growing body of research indicates that the
strategies youth use to cope with aggressive peers may influence their risk for subsequent experiences of victimization (e.g., Kochenderfer-Ladd, 2004) and psychosocial maladjustment (e.g., Sugimura, Rudolph, & Agoston, 2014), with passive coping associated with higher levels of peer victimization (Kochenderfer-Ladd & Pelletier, 2008; Shelley & Craig, 2010; Spence, De Young, Toon, & Bond, 2009) and depressive symptoms (Machmutow, Perren, Sticca, & Alsaker, 2012). Although problem solving has not been consistently linked to experiences of victimization (Kochenderfer-Ladd & Pelletier, 2008; Shelley & Craig, 2010; Spence et al., 2009), other findings suggest that this coping strategy is related to lower levels of victimization (Kochenderfer-Ladd, 2004) and depressive symptoms (Sugimura et al., 2014; Troop-Gordon, Rudolph, Sugimura, & Little, 2015). Given that Taking ACTION directly targets cognitive restructuring, behavioral activation, and problem solving, it was hypothesized that youth who participated in the intervention would exhibit decreases in passive coping and increases in problem solving as compared to a naturalistic control group.

Finally, it is important to note that aggressive victims were excluded from participating in the targeted intervention. Research shows that a subset of victimized youth also engage in aggression toward peers (Vernberg & Biggs, 2010). Aggressive victims are found to be distinct from nonaggressive victims (and other nonaggressive youth) in that they report more acceptance of deviance and aggression, engage in higher levels and more diverse types of aggressive behaviors, and exhibit less prosocial behavior (Camodeca et al., 2002; Haynie et al., 2001; Marini, Dane, Bosacki, & Ylc, 2006; McDougall & Vaillancourt, 2015; Veenstra et al., 2005). Thus, interventions targeting aggression may be more indicated with these youth.

4 | METHOD

4.1 | Participants

Participants for this study were recruited from an elementary school located in a small, rural Midwestern community in the United States in which consent for school-wide data collection was requested each year using back-to-school enrollment packets. According to school records, the racial composition of the student body was predominantly Caucasian, with <10% identifying as a racial or ethnic minority, and approximately 40% of all students were eligible for free or reduced-price lunch.

Recruitment and data collection for this study occurred in several phases (see Figure 1 for participant flow diagram). First, all students in the second through fourth grades who were not receiving special education services were recruited for participation in school-wide data collection during the summer of 2015. Note that children receiving special education services were excluded due to practical constraints, as they were either not present in the classroom during data collection or they were unable to independently complete child-report measures during the group administration. Caregivers provided informed consent via an electronic form that was included in the paperwork they completed to enroll their child in the school year. Consent was obtained for 84% of the 413 eligible students to participate in the project during the 2015–2016 academic year (n = 347). Second- through fourth-grade homeroom teachers also provided written informed consent (n = 19; 100% participation) before completing study measures. Child- and teacher-reported data were then collected on 325 second- through fourth-grade students during the Spring of 2016.

Recruitment for school-wide data collection during the subsequent school year followed the aforementioned procedures, with the exception that it involved third- through fifth-grade students. On this occasion, consent was obtained for 73% of the 420 eligible students (n = 308). All third- through fifth-grade homeroom teachers (n = 20) also provided written informed consent. Child- and teacher-reported data were then collected on 292 third- through fifth-grade students during the Fall of 2016 and 281 students during the Spring of 2017.

Following the Spring of 2016 data collection, children’s peer victimization and aggression scores were standardized, such that each variable was rescaled to have a mean of zero and a SD of 1. Thirty-six children
were deemed eligible for participation in the targeted intervention based on: (a) they reported ≥1 SD of physical and/or relational victimization, (b) they endorsed weekly experiences of physical and/or relational victimization, and (c) teachers reported <1 SD of reactive and/or proactive aggression. These students were recruited for the targeted intervention in early Fall 2016. Youth who had moved before the school year or whose parents had declined the school-wide data collection were not contacted (n = 5); further, school administrators indicated that one student was no longer eligible due to recent school-related issues. Thus,
letters providing information about the intervention groups along with consent forms were sent home to the caregivers of remaining students, and they were asked to return signed copies to the elementary school office. Overall, permission was obtained for 40% of the 30 eligible students to participate in the targeted intervention (n = 12).¹ Twelve of the remaining 18 eligible students who did not enroll in the targeted intervention but who participated in the school-wide data collection were selected as a naturalistic control group. Note that these control group participants met the aforementioned inclusion criteria with regard to their levels of peer victimization and aggression during the Spring of 2016. Of the six students who were not included in the control group, three were excluded because their caregivers did not return consent forms for them to participate in the school-wide data collection, and three were excluded due to missing data at either the pre- and/or postintervention assessment.

Accordingly, the intervention group included 12 youth (66.7% boys), the comparison group included 12 youth (58.3% boys), and the school-wide data included 280 youth (53.9% boys; all students who participated, except the 12 who were included in the intervention). All youth ranged between 7 and 11 years of age (see Table 1).

¹Consent was received for one additional student following the deadline for registration. The decision was made to include this child in fourth-grade group approximately 2 weeks after the targeted intervention began; however, this student did not participate in the school-wide data collection and was therefore not included in the analyses.
<table>
<thead>
<tr>
<th>Session</th>
<th>Objectives/topics reviewed</th>
</tr>
</thead>
</table>
| 1       | 1. Introductions  
          2. Set group expectations |
| 2       | 1. Set group rules  
          2. Assess symptom severity  
          3. Provide hope |
| 3       | 1. Set group leader expectations  
          2. Establish labels for emotions  
          3. Review homework procedures |
| 4       | 1. Emotion recognition; Relationship between thinking, feeling, behaving  
          2. Review ACTION acronym  
          3. Link mood and engagement in pleasant activities |
| 5       | 1. Review ACTION and “catching” the positive  
          2. Extend pleasant events activities and review link between mood and pleasant events |
| 6       | 1. Review and discuss further Mood–Thought–Behavior relationship |
| 7       | 1. Introduce problem-solving steps |
| 8       | 1. Set goal to increase engagement in pleasant events  
          2. Review problem-solving steps |
| 9       | 1. Continue to review problem-solving steps |
| 10      | 1. Begin to build a positive sense of self (symbols of emotions) |
| 11      | 1. Continue building a positive sense of self (symbols of emotions)  
          2. Review pleasant events schedule |
| 12      | 1. Apply problem-solving steps to three different emotions |
| 13      | 1. Review how to apply problem-solving steps to emotions |
| 14      | 1. Continue building a positive sense of self (self-descriptions)  
          2. Apply problem-solving steps to daily hassles |
| 15      | 1. Continue building a positive sense of self (positive and negative thought bubbles) |
| 16      | 1. Practice spontaneous use of problem solving  
          2. Review rationale for cognitive restructuring |
| 17      | 1. Practice how to notice and catch thoughts |
| 18      | 1. Continue building a positive sense of self (positive counters to negative self-evaluations; favorite things) |
| 19      | 1. Review cognitive restructuring  
          2. Review relationship between thoughts and feelings |
| 20      | 1. Introduction to alternative interpretations  
          2. Continue building a positive sense of self (positive perspective on negative characteristic; happy, funny, and proud moments) |
| 21      | 1. Introduction to self-standards  
          2. Introduction to self-evaluation and affect  
          3. Identify areas for self-improvement  
          4. Review alternative interpretations |
| 22      | 1. Discuss and establish goals  
          2. How to break down goals into subgoals  
          3. How to start working on achieving goals |

(Continues)
Nonaggressive, victimized youth participated in Taking ACTION (Stark & Kendall, 1996). The manual is written for youth ranging from 9 to 13 years of age, but it can be adapted for younger individuals (Stark & Kendall, 1996). The originally designed curriculum includes 15 new content sessions and up to three summary sessions that are approximately 45–60 min in duration, with up to two sessions held per week. The intervention focuses on problem solving, coping strategies, and self-management skills (e.g., self-evaluation and monitoring) in addition to cognitive restructuring.

Three groups were conducted (one for each grade level), with seven students in the third-grade group, two students in the fourth-grade group, and three students in the fifth-grade group. Minimal adaptations to the intervention structure were needed to fit with the school schedule. Specifically, the intervention was completed over 21–24 group sessions (third = 24 sessions; fourth = 21 sessions; fifth = 23 sessions), which were held for approximately 30 min each, twice a week. Variations in the number of sessions held per grade were due to factors such as slower group pace due to larger number of group members and cancellation of sessions due to absences of the majority of group members. Although the number of group sessions increased compared to the originally designed curriculum, groups were only held for approximately 30 min rather than up to an hour. Note that breaking up the length of the sessions is one adaptation listed as appropriate in the manual (Stark & Kendall, 1996). Group meetings consisted of engaging activities (e.g., playing board games, drawing, and coloring) and discussions that included personal examples and story-telling. Group leaders did not observe significant participant fatigue throughout the intervention. At the end of treatment youth provided feedback expressing that they did not want the groups to end, suggesting that participating in the group was a positive experience. Attendance of each group member was tracked, with all children being present for at least 75% of all sessions. The majority of absences were due to group member illnesses.

The first author, a licensed clinical psychologist, supervised two advanced, doctoral-level graduate students in the delivery of the intervention in weekly group meetings. The two graduate students were selected by the first author to implement the intervention given their advanced training and their research and clinical expertise in aggression and victimization. Each group was coled by the two graduate students, with less than five groups led by only one of the graduate students due to personal absences. To ensure fidelity, session content checklists were completed, and audio recordings were randomly reviewed by the first author throughout the intervention.

Adaptations to intervention content and materials were negligible. See Table 2 for a summary of group session content. Changes in content consisted of tailoring stories (e.g., Session 1, Objective 5: “Nicki Story”) to relate towards a similar age as group members and to be more focused on peer relations. Material changes included adapting the cover page of the workbooks and other materials to exclude reference to “depressed.” Additionally, changes were made for two homework sheets (i.e., Pleasant Events Schedule, Feelings Diary) to include an overall daily mood rating (0 = bad, 5 = okay, 10 = great). In the interest of time, group leaders had group supplies (e.g., silhouettes, magazine cut-outs) prepared before group sessions.

<table>
<thead>
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<tbody>
<tr>
<td>23</td>
<td>1. Introduction to expectations and predictions</td>
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<tr>
<td></td>
<td>2. Learn to counter catastrophic thoughts with reasonable thoughts</td>
</tr>
<tr>
<td></td>
<td>3. Use problem-solving steps and cognitive restructuring to facilitate change</td>
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<td></td>
<td>4. Check progress on goal attainment</td>
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<tr>
<td>24</td>
<td>1. Continue working toward self-improvement (progress toward goal attainment)</td>
</tr>
<tr>
<td></td>
<td>2. Facilitate discussion on how to use problem-solving steps and cognitive restructuring to facilitate change</td>
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<td>3. Discuss termination of groups</td>
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4.2 Targeted intervention

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<tr>
<th>TABLE 2 (Continued)</th>
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<th>Objectives/topics reviewed</th>
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4.3 Measures

4.3.1 Peer victimization

Both child and teacher reports of peer victimization were collected to identify youth in Spring 2016 as well as again at pre- and postintervention. Self-report of peer victimization was assessed using the nine-item Victimization of Self (VS) scale of the Peer Experiences Questionnaire (Dill, Vernberg, Fonagy, Twemlow, & Gamm, 2004; Vernberg, Jacobs, & Hershberger, 1999). The measure consists of two subscales; four items measured physical victimization (e.g., “A kid hit, kicked, or pushed me in a mean way”), and five items measured relational victimization (e.g., “A kid ignored me on purpose to hurt my feelings”). Participants were asked to respond to items on a 5-point scale (1 = never to 5 = a few times a week). Items were averaged, with higher scores indicating more peer victimization. The VS has demonstrated good reliability in previous studies (e.g., Cooley & Fite, 2016; Dill et al., 2004). In the current study, the subscales demonstrated good internal consistencies across time points (αs = 0.87–0.89).

Teacher reports of victimization were assessed using a six-item measure adapted from a peer-nomination scale (Crick & Bigbee, 1998). Of the six items, three items measured physical victimization (e.g., “Gets hit, kick, punched by others”) and three items measured relational victimization (e.g., “Other kids tell rumors about them behind their backs”). Teachers were asked to respond to items on a 5-point scale (1 = never to 5 = almost always). Items were averaged, with higher scores indicating more peer victimization. This adapted measure has demonstrated good internal consistency in previous studies (e.g., Fite et al., 2013; Fite, Evans, Cooley, & Rubens, 2014). In the current study, the subscales demonstrated good internal consistencies across time points (αs = 0.83–0.86).

4.3.2 Proactive/reactive aggression

Teacher reports of proactive and reactive aggression were collected in Spring 2016 to identify nonaggressive victimized youth. Teachers completed the Proactive/Reactive Aggression Rating Scale (Dodge & Coie, 1987) for each student in their class. The measure consists of six items; three items measured proactive aggression (e.g., “This child gets other kids to gang up on somebody they don’t like”) and three items measured reactive aggression (e.g., “When this child has been teased or threatened, they get angry easily and strike back”). Participants were asked to rate each item on a 5-point scale (1 = never to 5 = almost always). Mean scores were computed for each subscale, with higher scores indicating higher levels of aggression. Previous research has found this measure to have good reliability and validity (e.g., Coie, Dodge, Terry, & Wright, 1991; Dodge & Coie, 1987). In the current study, the subscales demonstrated good internal consistencies (αs = 0.87 and 0.94).

4.3.3 Depressive symptoms

Both child and teacher reports of depressive symptoms were assessed at pre- and postintervention. Child report of depressive symptoms was assessed using the Mood and Feelings Questionnaire, Short Version (SMFQ, Angold et al., 1995). The measure consists of eight items that measured symptoms of depression (e.g., “I felt miserable or unhappy,” “I felt I was no good anymore”). Participants were instructed to respond to questions on a 3-point scale (0 = not true, 1 = sometimes, 2 = true). Items were averaged, with higher scores indicating higher levels of depressive symptoms. The SMFQ has been found to be psychometrically sound, with evidence demonstrating good reliability and validity (Angold et al., 1995; Messer et al., 1995). In the current study, this measure demonstrated good internal consistency at both pre- and postintervention assessments (αs = 0.87 and 0.88).

Teacher reports of depressive symptoms were assessed using the Withdraw/Depressed subscale of the Teacher Report Form (Achenbach & Rescorla, 2001). Teachers responded to eight items that measured symptoms of depression, including loss in pleasure and unhappiness/sadness, on a 3-point scale (1 = not true, 2 = somewhat or sometimes true, 3 = very or often true). Items were averaged, with higher scores indicating higher levels of depressive
symptoms. In the current study, this measure demonstrated good internal consistency at both pre- and postintervention assessments ($\alpha$s = 0.86 and 0.85).

4.3.4 | Anxiety symptoms

Child reports of anxiety were collected at pre- and postintervention. Anxiety symptoms were assessed using the Patient-Reported Outcomes Measurement Information System (PROMIS) Pediatric Short Form (Irwin et al., 2010). The measure consists of eight items assessing various aspects of anxiety (e.g., “I felt like something awful might happen,” “I worried about what could happen to me”), with participants asked to rate each item on a 5-point scale (1 = never to 5 = always). Items were averaged, with higher scores indicating higher levels of anxiety symptoms. In the current study, this measure demonstrated good internal consistency at both pre- and postintervention assessments ($\alpha$s = 0.91 and 0.90).

4.3.5 | Passive coping and problem solving

Child reports of passive coping and problem solving were collected at pre- and postintervention. These coping strategies were assessed using two subscales from a modified version of the Self-Report Coping Scale (SRCS; Causey & Dubow, 1992), which was adapted by Kochenderfer-Ladd and Pelletier (2008). Six items assessed passive coping (e.g., “Go off by yourself,” “Blame yourself for doing something wrong”), and three items assessed problem solving (e.g., “Try to think of ways to stop it,” “Change things to keep it from happening again”). Participants were asked to rate each item on a 3-point scale (1 = never, 2 = sometimes, 3 = most of the time). Items were averaged, with higher scores indicating higher levels of passive coping and problem solving. The modified SRCS has demonstrated good reliability and validity in previous studies (e.g., Kochenderfer-Ladd & Pelletier, 2008; Sugimura et al., 2014). In the current study, the passive coping ($\alpha$s = 0.72 and 0.67) and problem-solving ($\alpha$s = 0.61 and 0.61) subscales demonstrated modest to adequate internal consistency at both pre- and postintervention assessments.

4.4 | Assessment procedures

The current study was approved by the researcher’s university Institutional Review Board, the school district, and the school administrators. Parents/legal guardians provided consent for their youth to complete surveys in online back-to-school packets. Additionally, verbal assent was obtained from youth before each data collection. Teachers provided written consent for participation during teacher in-service meetings.

Preintervention assessment with both children (those who participated as well as those who did not participate in the intervention) and teachers occurred 2 weeks before the intervention commencing, approximately 10 weeks after the start of the 2016–2017 academic year (mid-October). Self-report measures were collected via group administration at the same time for those in the intervention and other youth in the school. No school personnel or students without consent were present during data collection to ensure confidentiality of responses. A trained research assistant read measure instructions, descriptions of response scales, and measure items aloud while additional research assistants circulated throughout the classroom to assist in the understanding of items and to answer individual questions. Teachers completed assessments via secure online surveys. Similar procedures were followed for postintervention assessments, which occurred within 1 month of the intervention concluding. Students received a small prize (e.g., a mechanical pencil) for participating at each time point. Teachers were compensated $65 for completing all student surveys at each time point.

4.5 | Data analytic plan

Descriptive statistics were initially estimated to describe the sample using IBM SPSS Statistics Version 24 (IBM Corp., 2016). Further, independent samples $t$ tests were conducted to examine potential differences at the preintervention assessment between the intervention and control group participants. School-wide and intervention group changes in
physical victimization, relational victimization, depressive symptoms, and anxiety symptoms over a 6-month period were subsequently evaluated using a series of multilevel models within SAS University Edition (SAS Institute Inc., 2014). Data collection occasions at Level 1 were nested within persons at Level 2, and model parameters were estimated using restricted maximum likelihood (REML) and the PROC MIXED procedure. REML estimation was used to account for the minimal missing data (i.e., 4%) in the school-wide analyses, and time was centered such that 0 represented the first observation.

An empty means, random intercept model was estimated first to determine the intraclass correlation (i.e., the proportion of the random intercept variance relative to the total variance) for each outcome. A fixed linear effect of time was then added to the models evaluating school-wide changes in outcomes over time. A fixed linear effect of time, intervention group variable (0 = control, 1 = intervention), and a Time×Intervention Group interaction were added to the models evaluating the effects of the targeted intervention. The significance of these effects of time and intervention group were assessed using Wald tests, and effect sizes were assessed with pseudo-$R^2$ values for the proportion reduction in the Level-1 residual variance relative to the empty means, random intercept model. Note that the models evaluating school-wide changes in each outcome excluded the 12 intervention group participants.

5 | RESULTS

5.1 | Descriptive statistics

At the time of the screening assessment (Spring 2016), 58% ($n = 7$) of the students who subsequently enrolled in the intervention groups reported having experienced weekly physical victimization over the course of the school year, and 92% ($n = 11$) reported having experienced weekly relational victimization. At the preintervention assessment (Fall 2016), only one student reported experiencing weekly physical victimization and three students reported experiencing weekly relational victimization; however, 58% ($n = 7$) reported at least one incident of physical victimization since the beginning of the school year, and 75% ($n = 9$) reported at least one incident of relational victimization, suggesting that these were continuing issues for these youth. Means and SDs of the outcome variables for all study participants at the time of the preintervention assessment are reported in Table 1. Further, a series of independent series t tests indicated that intervention and control group participants did not significantly differ on any variable at the preintervention assessment (see Table 1).

<table>
<thead>
<tr>
<th>Physical victimization</th>
<th>Child report</th>
<th>Teacher report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>$b = 0.08$, $SE = 0.05$, $p = 0.09$</td>
<td>$b = 0.01$, $SE = 0.01$, $p = 0.60$</td>
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<table>
<thead>
<tr>
<th>Relational victimization</th>
<th>Child report</th>
<th>Teacher report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>$b = 0.10$, $SE = 0.04$, $p = 0.02$</td>
<td>$b = 0.12$, $SE = 0.03$, $p &lt; 0.001$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Depressive symptoms</th>
<th>Child report</th>
<th>Teacher report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>$b = 0.04$, $SE = 0.02$, $p = 0.05$</td>
<td>$b = 0.05$, $SE = 0.02$, $p &lt; 0.001$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Anxiety symptoms</th>
<th>Child report</th>
<th>Teacher report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>$b = -0.08$, $SE = 0.06$, $p = 0.19$</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Problem solving</th>
<th>Child report</th>
<th>Teacher report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>$b = -0.01$, $SE = 0.04$, $p = 0.74$</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Passive coping</th>
<th>Child report</th>
<th>Teacher report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>$b = 0.04$, $SE = 0.03$, $p = 0.14$</td>
<td>—</td>
</tr>
</tbody>
</table>

Note. Bold estimates represent statistically significant ($p < 0.05$) estimates; intervention, but not control, group participants were excluded from the school-wide analyses.
5.2 | Multilevel models

5.2.1 | School-wide analyses

Intraclass correlation estimates revealed that between 44% and 74% of the variance was between persons in the mean outcomes over time. When the fixed linear effects of time were added to the models (see Table 3), results indicated that there were statistically significant increases in child- and teacher-reported relational victimization (see Figure 2a,c, respectively) and depressive symptoms (see Figure 2b,d, respectively); these effects accounted for an additional 2% of the Level-1 residual variance for child-reported relational victimization, 1% of the Level-1 residual variance for child-reported depressive symptoms, 4% of the Level-1 residual variance for teacher-reported relational victimization, and 3% of the Level-1 residual variance for teacher-reported depressive symptoms. In contrast, significant changes were not observed for child- or teacher-reported physical victimization nor child-reported anxiety symptoms, problem solving, or passive coping.

5.2.2 | Intervention group analyses

Intraclass correlation estimates revealed that between 0% and 59% of the variance for the intervention group participants and between 0% and 84% of the variance for the control group participants was between persons.

![Graphs showing school-wide changes in child- and teacher-reported relational victimization and depressive symptoms.](image-url)

**FIGURE 2** (a–d) School-wide changes in child- and teacher-reported relational victimization and depressive symptoms. Note. n = 280; intervention, but not control, group participants were excluded from these analyses.

*Statistically significant (p < 0.05) linear change
TABLE 4  Interactions between linear effects of time and intervention group

<table>
<thead>
<tr>
<th></th>
<th>Child report</th>
<th>Teacher report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical victimization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td><em>b</em> = -0.06, SE = 0.19, <em>p</em> = 0.74</td>
<td><em>b</em> = 0.00, SE = 0.10, <em>p</em> = 0.99</td>
</tr>
<tr>
<td>Intervention group</td>
<td><em>b</em> = -0.40, SE = 0.28, <em>p</em> = 0.17</td>
<td><em>b</em> = -0.28, SE = 0.15, <em>p</em> = 0.08</td>
</tr>
<tr>
<td>Time×Intervention Group</td>
<td><em>b</em> = -0.19, SE = 0.27, <em>p</em> = 0.49</td>
<td><em>b</em> = 0.00, SE = 0.14, <em>p</em> = 0.99</td>
</tr>
<tr>
<td>Relational victimization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td><em>b</em> = 0.18, SE = 0.17, <em>p</em> = 0.32</td>
<td><em>b</em> = 0.37, SE = 0.15, <em>p</em> = 0.02</td>
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<tr>
<td>Intervention group</td>
<td><em>b</em> = -0.06, SE = 0.32, <em>p</em> = 0.86</td>
<td><em>b</em> = -0.55, SE = 0.25, <em>p</em> = 0.04</td>
</tr>
<tr>
<td>Time×Intervention Group</td>
<td><em>b</em> = -0.55, SE = 0.24, <em>p</em> = 0.04</td>
<td><em>b</em> = -0.28, SE = 0.20, <em>p</em> = 0.17</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td><em>b</em> = 0.17, SE = 0.12, <em>p</em> = 0.19</td>
<td><em>b</em> = -0.03, SE = 0.08, <em>p</em> = 0.73</td>
</tr>
<tr>
<td>Intervention group</td>
<td><em>b</em> = 0.30, SE = 0.16, <em>p</em> = 0.07</td>
<td><em>b</em> = -0.05, SE = 0.13, <em>p</em> = 0.70</td>
</tr>
<tr>
<td>Time×Intervention Group</td>
<td><em>b</em> = -0.36, SE = 0.17, <em>p</em> = 0.05</td>
<td><em>b</em> = -0.01, SE = 0.11, <em>p</em> = 0.91</td>
</tr>
<tr>
<td>Anxiety symptoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td><em>b</em> = 0.15, SE = 0.33, <em>p</em> = 0.64</td>
<td>—</td>
</tr>
<tr>
<td>Intervention group</td>
<td><em>b</em> = 0.16, SE = 0.37, <em>p</em> = 0.68</td>
<td>—</td>
</tr>
<tr>
<td>Time×Intervention Group</td>
<td><em>b</em> = -0.64, SE = 0.46, <em>p</em> = 0.17</td>
<td>—</td>
</tr>
<tr>
<td>Problem solving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td><em>b</em> = 0.08, SE = 0.16, <em>p</em> = 0.60</td>
<td>—</td>
</tr>
<tr>
<td>Intervention group</td>
<td><em>b</em> = 0.29, SE = 0.19, <em>p</em> = 0.12</td>
<td>—</td>
</tr>
<tr>
<td>Time×Intervention Group</td>
<td><em>b</em> = -0.38, SE = 0.23, <em>p</em> = 0.11</td>
<td>—</td>
</tr>
<tr>
<td>Passive coping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td><em>b</em> = 0.06, SE = 0.09, <em>p</em> = 0.51</td>
<td>—</td>
</tr>
<tr>
<td>Intervention group</td>
<td><em>b</em> = 0.10, SE = 0.19, <em>p</em> = 0.59</td>
<td>—</td>
</tr>
<tr>
<td>Time×Intervention Group</td>
<td><em>b</em> = -0.31, SE = 0.13, <em>p</em> = 0.02</td>
<td>—</td>
</tr>
</tbody>
</table>

Note. Bold estimates represent statistically significant (*p* < 0.05) estimates; intervention group (0 = control, 1 = intervention).

in the mean outcomes over time. When the effects of time, intervention group, and Time×Intervention Group were added to the models (see Table 4), results indicated that there were statistically significant differences in linear change between intervention and control group participants on child-reported relational victimization (see Figure 3a), depressive symptoms (see Figure 3b), and passive coping (see Figure 3c); these effects accounted for an additional 13% of the Level-1 residual variance for relational victimization, 8% of the Level-1 residual variance for depressive symptoms, and 20% of the Level-1 residual variance for passive coping. Whereas the intervention group participants exhibited significant decreases in relational victimization, *b* = -0.37, SE = 0.17, *p* = 0.04, and passive coping, *b* = -0.25, SE = 0.09, *p* = 0.01, the control group participants exhibited nonsignificant increases in relational victimization, *b* = 0.18, SE = 0.17, *p* = 0.32, and passive coping, *b* = 0.06, SE = 0.09, *p* = 0.51, over time. Further, the intervention group participants exhibited nonsignificant decreases, *b* = -0.19, SE = 0.12, *p* = 0.13, and the control group participants exhibited nonsignificant increases, *b* = 0.17, SE = 0.12, *p* = 0.19, in depressive symptoms over time.2 Significant differences were not observed between the intervention and control group participants on changes in child-reported physical victimization, anxiety symptoms, or problem solving, nor any of the teacher-reported outcomes.

2Due to the limited sample size and power to detect differences between groups, post hoc analyses were conducted to separately examine the linear effects of time on child-reported depressive symptoms for the intervention and control group participants. Results indicated that the intervention group participants exhibited significant decreases in depressive symptoms over time, *b* = -0.19, SE = 0.09, *p* = 0.05. In contrast, control group participants continued to exhibit nonsignificant increases in depressive symptoms over time, *b* = 0.18, SE = 0.15, *p* = 0.28.
The goal of the current study was to evaluate whether Taking ACTION (Stark & Kendall, 1996), a group-based cognitive behavioral intervention originally designed to reduce symptoms of depression and anxiety, may prevent subsequent peer victimization among elementary school-age youth. Indeed, current findings indicated that youth who completed the intervention reported significant decreases in relational victimization over the course of the academic year, but no changes in teacher-reported relational victimization were evident. Conversely, no changes in self-reported relational victimization were evident for the control group. Moreover, increases in both child- and teacher-reported relational victimization were observed for the school as a whole. These results yield some promising initial data for the use of this intervention with victimized youth during middle childhood.

Interestingly, however, no differences in the intervention group and naturalistic control group were evident for teacher-reported outcomes. Differences in self- and teacher reports of victimization for the intervention group may reflect a difference in perceived versus observable changes in victimization. It could be that youth who completed the intervention experienced a reduction in internalizing symptoms, which resulted in less sensitivity to peer victimization and/or less internalization of peer behavior. There may also be many incidences of victimization, particularly relational acts, that the teachers are not aware of that resulted in decreased self- but not teacher-reports (Card & Hodges, 2008). Nonetheless, both self- and teacher reports have been found to be valid and reliable and may provide additive and unique information, with both contributing to our understanding of peer victimization (Card & Hodges, 2008).

FIGURE 3   (a–c) Change comparisons between intervention and control group participants on relational victimization, depressive symptoms, and passive coping. Note. Intervention group n = 12; control group n = 12. *Statistically significant (p < 0.05) linear change

6 | DISCUSSION
Unfortunately, the intervention did not influence physical victimization in the current evaluation, which is likely attributable to the low base rate evident for all youth in the school. As such, the impact of Taking ACTION on physical victimization still warrants further investigation, especially in samples where incidents of physical victimization are more prevalent.

Although sample size likely limited our ability to detect significant effects between groups, findings also showed decreases in self-reports of depressive symptoms for youth who participated in the intervention, which is consistent with the original goals of Taking ACTION (Stark & Kendall, 1996) and previous evaluations of the intervention (Stark et al., 1987, 1991). These findings are in contrast to the nonsignificant increases the naturalistic control group exhibited. Additionally, significant increases in both child- and teacher-reported depressive symptoms were found for the school as a whole. However, no changes in anxiety were evident for any group, suggesting anxiety remained stable over the year, regardless of intervention status. It is possible that the focus on peers in the current study’s intervention groups only impacted depressive symptoms.

Peer victimization and internalizing symptoms have been found to be bidirectionally associated (Card et al., 2007; Schacter et al., 2014), and negative cognitions may contribute to this cycle (Barchia & Bussey, 2010; Cole, Maxwell, Dukewich, & Yosick, 2010; Harper, 2012; Sinclair et al., 2012). Specifically, self-blaming attributions have been shown to place youth at risk for peer victimization and ultimately lead to increases in depressive symptoms over time (Perren et al., 2013; Schacter et al., 2014). The focus of Taking ACTION on cognitive restructuring, behavioral activation, and problem solving may have helped to reduce the negative cognitions and emotions experienced by victimized youth, thereby reducing their subsequent experiences of relational victimization and symptoms of depression.

Indeed, youth who participated in the intervention exhibited significant decreases in passive coping over time. This avoidant coping strategy is focused on managing the cognitive and emotional reactions arising from experiences of victimization (Causey & Dubow, 1992) rather than reducing future victimization, and it may actually signal vulnerability to peers (Shelley & Craig, 2010). It is thought that passive victims are seen as easy targets who submit to aggressors (Kochenderfer-Ladd & Ladd, 2010), and passive coping has been linked to higher levels of peer victimization (Kochenderfer-Ladd & Pelletier, 2008; Shelley & Craig, 2010; Spence et al., 2009) and depressive symptoms (Machmutow et al., 2012). Further, experiences of victimization may predict increases in passive coping over time (Terranova, Boxer, & Morris, 2010). Although the current study was not able to test a mediational model due to the limited sample size, future research efforts are needed to test whether reductions in passive coping serve as a mechanism of action of cognitive behavioral interventions for victimized youth.

Contrary to expectations, however, youth who participated in the intervention did not exhibit subsequent increases in problem solving. This finding may be explained in part by the measure utilized in the current study, which consisted of only three items and assessed the overall frequency of this coping strategy rather than the effectiveness of youth’s efforts to determine the cause of their victimization and develop a plan to prevent it from happening again. Problem solving is generally considered to be an adaptive form of coping with social stress that has been related to lower levels of peer victimization (Kochenderfer-Ladd, 2004) and symptoms of depression over time (Sugimura et al., 2014; Troop-Gordon et al., 2015). Still, experiences of victimization may decrease youth’s use of this coping strategy (Troop-Gordon et al., 2015), and findings from one cross-sectional study suggest that problem solving may actually increase victimized children’s risk for peer rejection (Kochenderfer-Ladd & Skinner, 2002); the authors suggested that “if victimized children implement ineffective, or inappropriate, strategies, others may conclude that they are provoking conflicts rather than solving them” (Kochenderfer-Ladd & Skinner, 2002, p. 275). Thus, it would be informative for future research to include a more comprehensive assessment of this coping strategy and examine whether cognitive behavioral interventions improve the effectiveness of the problem-solving strategies victimized youth select and implement.

It is important to note that this study is a preliminary investigation and current findings need to be interpreted in light of its limitations. First, the intervention was conducted with a small sample of youth, which may have limited our power to detect effects. Although significant changes from pre- to postintervention were evident, results
need to be replicated in larger samples. Second, although the naturalistic control group (and school-wide data) allowed for comparisons, there could be selection biases that influenced those who participated in the intervention versus those who did not. Future investigations with randomization utilized for group assignment are needed to provide more confidence that the effects can be attributed to the intervention. Information regarding additional services received outside the school setting was not collected, which needs to be addressed in future research.

Given that Taking ACTION intervention is designed for youth ranging from 9 to 13 years of age, we included third- through fifth-grade students in this study. Nonetheless, this narrow age span limits the generalizability of findings to other grade levels and developmental stages. Moreover, the school was comprised of predominantly Caucasian youth, and effects may not generalize to ethnically/racially diverse youth. Further research examining associations across various ethnic/racial groups is needed. It would also be beneficial to evaluate anxiety symptoms from multiple perspectives beyond child reports in future investigations (e.g., parent or teacher reports). Future research also needs to assess cyber victimization, as this form is evident among elementary school-age youth (DePaolis & Williford, 2015; Monks, Robinson, & Worlidge, 2012; Tokunaga, 2010) and has a direct impact on social relationships at school (Juvonen & Gross, 2008; Patchin & Hinduja, 2010; Smith, 2012).

It is important to note that the participating school is invested in preventing peer victimization, with antibullying policies in place that likely limited the amount of victimization that was observed. It is possible that the promising effects found in the current study may be even stronger in schools with higher rates of victimization. Thus, an important next step is to evaluate this intervention within schools with higher rates of victimization and less structure to address peer victimization (i.e., schools with fewer evidence-based policies, procedures, and practices). Future work should also evaluate long-term postintervention effects to determine whether intervention gains persist over time. Additionally, examining the effectiveness of the intervention when delivered by school counselors and other school personnel is warranted, with sustainability more likely if school staff can provide the intervention. Finally, although the group leaders did not notice any differences in response to the intervention across individual characteristics, it is important to recognize that acts of peer victimization occur within contexts (e.g., schools and neighborhoods), where ecological norms may heighten the risk for certain groups to experience peer victimization, such as ethnic/racial minorities, LGBTQ youth, and students with disabilities. Given prior evidence noting elevated risk for these populations (Earnshaw, Bogart, Poteat, Reisner, & Schuster, 2016; Limber, Kowalski, Agatston, & Huynh, 2016; Newman, Fantus, Woodford, & Rwigema, 2017), future studies investigating targeted interventions for victimized youth may benefit from assessing broader ecological factors that may increase risk for certain groups, as well evaluating the effectiveness of interventions for particular groups of individuals.

7 | CONCLUSIONS

Despite limitations, current findings, in conjunction with the Fung (in press) study, provide support for the use of cognitive behavioral interventions for victimized youth. Observed changes in youths’ of peer victimization, as well as depressive symptoms and passive coping, are likely tied to the targeted intervention’s focus on cognitive restructuring of victims’ attributions. Schacter et al. (2014) posit that “an attributional approach to changing victims’ subjective interpretations offers an underutilized intervention method that can play an important role in helping to prevent the cycle of peer victimization” (p. 452). Further work evaluating these interventions for victimized youth is indicated.

ACKNOWLEDGMENTS

The intervention research was funded by a General Research Fund grant awarded to the first author by the University of Kansas. School-wide data collection was funded by an Elizabeth Munsterberg Koppitz fellowship from
the American Psychological Foundation and a Routh Research and Dissertation Grant from the Society of Clinical Child & Adolescent Psychology awarded to the J. L. C.

CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest.

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REFERENCES


