An intervention for relational and physical aggression in early childhood: A preliminary study

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ABSTRACT

A preventive intervention for reducing physical and relational aggression, peer victimization, and increasing prosocial behavior was developed for use in early childhood classrooms. Nine classrooms were randomly assigned to be intervention rooms ($N = 202$ children) and nine classrooms were control rooms ($N = 201$ children). Classroom was the unit of analysis and both observations and teacher-reports were obtained at pre and post-test. Focus groups were used to develop the initial program. The 6-week program consisted of developmentally appropriate puppet shows, active participatory sessions, passive concept activities and in vivo reinforcement periods. Preliminary findings suggest that the "Early Childhood Friendship Project" tended to reduce physical and relational aggression, as well as physical and relational victimization and tended to increase prosocial behavior more for intervention than control classrooms. Teachers and interventionists provided positive evaluations of the program and there is evidence for appropriate program implementation.

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Peer relationships serve as a salient context for children's cognitive, social, emotional, and physiological development across the lifespan (Hartup, 1996; Rubin, Bukowski, & Parker, 2006). Developmental psychology and psychopathology literatures indicate that the skills acquired within peer relationships (e.g., conflict resolution, emotion regulation, perspective taking, friendship formation, and social competence) during children's early school years significantly impact children's interpersonal relationships in subsequent developmental periods (for review, see Sroufe, Egeland, & Carlson, 1999). Significant problems with peer relations may also lead to peer rejection, victimization, social withdrawal, internalizing problems, or externalizing problems, including aggressive behavior, all of which may negatively affect academic competence and the transition to school (e.g., Belsky & MacKinnon, 1994; Buhs & Ladd, 2001; Rimm-Kaufman & Pianta, 2000). Arguably the earlier we intervene for aggression, the greater the probability of children improving (Sroufe, 1997), which was the impetus for designing a classroom-based intervention for early childhood in the present study.

Children from high-risk environments (e.g., high crime and low SES neighborhoods) may begin school with problems in impulse and/or emotional control and social problem solving (Lochman, Lampron, & Rabiner, 1989; Shaw, Keenan, & Vondra, 1997). These children are subsequently more likely to engage in aggressive social behavior and to experience peer rejection (e.g., Dodge, Pettit, & Bates, 1995). These children's difficulties are compounded by academic problems that are intertwined with and exacerbated by behavior problems (Hinshaw, 1994). To impact such pervasive problems, interventions must therefore target educational systems to address multiple contextual factors contributing to the development and

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maintenance of such problems (Greenberg, Domitrovich, Graczyk, & Zins, 2001). To prevent or reduce peer problems in school, interventions must be in settings where aggression occurs (Coie, 1996; Offord, 1996).

1. Aggressive behavior

Researchers have continued to generate and refine models of the development of aggressive behavior as well as evidence-based preventive interventions. Physical aggression is defined as the intent to hurt, harm, or injure with physical force or the threat of physical force, including kicking, hitting, pushing, and forcibly taking objects (Dodge et al., 2006). These behaviors have been associated with a host of social–psychological adjustment factors (e.g., peer rejection, loneliness; Miller-Johnson et al., 2002) and disruptive behavioral disorders (e.g., Attention Deficit Hyperactivity Disorder, Conduct Disorder, Oppositional Defiant Disorder; Waschbusch, 2002) that are problems in school settings and a continued challenge for teachers to address in the classroom. Moreover, aggressive behavior is a major educational and public health concern and is associated with problematic school transitions in early childhood (Ladd & Price, 1987) as well as academic difficulties throughout the school years (Leff, Power, Manz, Costigan, & Nabors, 2001). In addition, victimization has been found to be associated with low-quality friendships, characterized by low levels of warmth and intimacy (Goldbaum, Craig, Pepler, & Connolly, 2003). Finally, physical aggression has been found to be more prominent in boys relative to girls (Dodge et al., 2006).

Physical and relational aggression (i.e., using the removal or threat of the removal of the relationship to harm, including social exclusion, friendship withdrawal threats, ignoring, spreading malicious rumors, gossip, secrets, and lies; Crick & Grotpeter, 1995) have been theorized and demonstrated to be unique constructs in early childhood and later developmental periods (see Crick, Ostrov, & Kawabata, 2007). During early childhood, these constructs are often correlated when using teacher-report, peer-report, or parent-report (e.g., Crick et al., 2007; Ostrov & Bishop, 2008), but those correlations are not as high in magnitude or sometimes not even significantly associated when observational methods are used (e.g., Crick et al., 2006; Ostrov, 2006). Moreover, teacher-, peer-, self-, and parent-reports of relational and physical aggression have unique associations with adjustment, social–cognitive correlates, physiological markers, and psychopathology (e.g., Bailey & Ostrov, 2008; Crick et al., 2006; Cullerton-Sen et al., in press; Marsee & Frick, 2007; Miller & Lynam, 2003; Murray-Close, Han, Cicchetti, Crick, & Rogosch, 2008; Pellegrini & Long, 2003; Prinstein, Boergers, & Vernberg, 2001).

Relational aggression has been found to be uniquely associated with significant social–psychological adjustment problems across development (e.g., peer rejection) and is associated with symptoms of psychological disorders (e.g., ADHD, borderline personality features, eating disorders, substance use and abuse, delinquency, and internalizing problems; Crick, Murray-Close, & Woods, 2005; Crick et al., 2006; Murray-Close, Ostrov, & Crick, 2007; Werner & Crick, 2004; Zalecki & Hinshaw, 2004). In general, relational aggression is believed to be more prevalent in girls relative to boys, but this finding may depend on the developmental period, culture, or assessment strategy used (Crick et al., 2007). During early childhood, however, girls are generally more relationally aggressive with peers than are boys, display more relational aggression to female peers than they do to male peers and display relational aggression more than physical aggression (e.g., Bonica, Arnold, Fisher, Zeljo, & Yershova, 2003; Ostrov & Keating, 2004; Russell, Hart, Robinson, & Olsen, 2003; cf. Estrem, 2005; Hart, Nelson, Robinson, Olsen, & McNeilly-Choque, 1998).

2. Interventions for physical aggression

To date, hundreds of studies have focused on prevention or intervention for physically aggressive behavior (see Leff et al., 2001). One of the largest efforts was "Fast Track," a multi-year, multi-component intensive intervention for young children at-risk for early-onset conduct problems. The Fast Track program was found to have small positive effects on children's aggressive behavior, social cognitions, prosocial behavior, and social skills during elementary school (CPPRG, 2004). These researchers further documented that their program was cost-effective for children at highest risk despite the considerable expense of the program (Foster et al., 2006).

A second program, the Coping Power Program, a preventive intervention for preadolescent physically aggressive boys and their parents has been found to have significant intervention effects with high-risk boys from diverse backgrounds displaying lower rates of antisocial behavior at 12-month follow-ups (Lochman & Wells, 2004). Additional preventive interventions have been developed and found to be effective with children during early childhood and under the age of five. The most widely known intervention of this type is the "Incredible Years" (IYS), an evidence-based program that relies on the use of developmentally appropriate child-size puppets to role-play and communicate various social skills modules for a child training group, as well as parent and teacher training components (see Reid & Webster-Stratton, 2001).

The evidence-based IYS programs target externalizing behaviors but were specifically designed for children presenting with Oppositional Defiant Disorder and Conduct Disorder (Reid & Webster-Stratton, 2001). The program generally focuses on teaching parents and teachers child-directed play techniques, consistent and developmentally appropriate parenting strategies, and strategies for improving children's social interactions with peers (Reid, Webster-Stratton, & Baydar, 2004). Child training is reinforced with activities as well as a token economy system (Reid & Webster-Stratton, 2001). This work has been primarily conducted in individual treatment groups with clinic-referred children (e.g., Webster-Stratton, Reid, & Hammond, 2001). The clinic-based parent and child-training has revealed robust findings. For example, a 2-year follow-up study found that approximately 75% of children that participated in the project had returned to adaptive levels of functioning according to parent- and teacher-report (Reid, Webster-Stratton, & Hammond, 2003). An additional independent examination