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Progress in Community Health Partnerships: Research, Education, and
Action, Volume 4, Issue 3, Fall 2010, pp. 189-196 (Article)

Published by Johns Hopkins University Press

DOI: <https://doi.org/10.1353/cpr.2010.0002>



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A Community-Based Approach to Preventing Youth Violence: What Can We Learn From the Playground?

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Submitted 31 July 2009; originally revised 18 December 2009; second revision 3 February 2010; accepted 4 February 2010. Supported in part by NIMH 1 K01 MH073717-01A2 from the National Institute of Mental Health and grants from Temple University's Office of the Vice President for Research and College of Liberal Arts awarded to Dr. Drabick.

Abstract

Background: Aggression, bullying, and victimization represent tremendous public health concerns among youth. These behaviors occur frequently in unstructured settings, such as the playground. Direct observations of the playground permit examination of these peer processes and are readily accomplished using community-based participatory research (CBPR).

Objectives: To present alternative viewpoints regarding the use of playground observations to evaluate peer aggression, bullying, and victimization.

Methods: We used a (1) child-specific observational coding system and (2) naturalistic observation of the playground to examine playground behaviors.

Results: Peer-child processes have differential associations with conduct disorder (CD) and depression symptoms. Group-based observations suggested a number of strengths and some areas that would be amenable to intervention.

Conclusion: A CBPR framework is useful for identifying youth involved in bullying and victimization; providing immediate support, interventions, and problem-solving strategies; and predicting potential negative outcomes, which can inform violence prevention and intervention efforts.

Keywords

Peers, victimization, bullying, aggression, at-risk populations, observations, prevention

Bullying and victimization are associated with numerous negative correlates and sequelae, including anti-social, aggressive, and depressive behaviors.¹⁻⁷ These risks are augmented among youth residing in contextually disadvantaged neighborhoods. Inner-city youth are exposed to numerous physical and psychosocial stressors that confer risk for violence and victimization, including high levels of crime, delinquent peer groups, and poor social cohesion.⁸⁻¹¹ Unfortunately, bullying and victimization are relatively common experiences among elementary school youth. In a large scale survey, over 49% of youth reported being bullied, 30.8% reported bullying others, and 65.2% reported witnessing bullying at least once within the past month.¹ Some studies have shown that peers are present in bullying in some capacity in at

least 85% of the incidents, and may reinforce, model, participate, intervene, or observe.¹²⁻¹⁵ Given the negative outcomes associated with bullying and victimization, as well as the high frequency of peer involvement, a partnership was established to examine aggressive, bullying, and victimization behaviors that occur within an inner-city school setting. In this paper, we describe our CBPR efforts from the perspectives of an urban principal (DB) and academic researcher (DD).

Our partnership developed initially because of our shared investment in improving the lives of contextually disadvantaged, inner-city youth. DD's university had partnered with four elementary schools in the urban neighborhood surrounding the university as one model of urban school reform. The school-university partnership included key stakeholders in

the schools and community as well as university researchers and liaisons. Through this broader partnership, we began discussing concerns of the schools and possible strategies for our working together to address common interests.

In the initial phases of the partnership, we discussed areas that were particularly problematic for school personnel. DB garnered information from staff; based on staff responses, we decided to focus on bullying and victimization. Among elementary school youth, bullying and victimization most often occur in unstructured settings, such as the playground,^{1,4,12,16} for a variety of reasons. The playground is an important training ground for both positive and negative peer processes, including development of social competence, aggression, and victimization. In addition, the unstructured nature of the playground, low levels of adult supervision, high activity levels, frequency of peer interactions, and diverse network of friends with whom to affiliate contribute to higher levels of aggression and bullying.¹³ Given that adults are often unaware of the extent of these events, bullying is less likely to be punished in this context; indeed, even nonaggressive youth bully on the playground.^{4,12,13}

Although bullying and victimization emerge early in development,⁶ parents and teachers often are unaware or underestimate the frequency and severity of bullying, as well as the number of youth involved in and the consequences of bullying.^{1,4-6,17} Systematic observation of playground behavior has revealed higher frequencies of bullying behaviors than previously thought based on interview and questionnaire methods; nevertheless, bullying and victimization are often considered normative and thus adults may be less likely to intervene with these behaviors.^{1,4,12} Playground observations are particularly useful for understanding bullying and victimization given that we can observe the context in which bullying is likely to occur, and we have the opportunity to observe peer processes that may contribute to bullying, such as peer endorsement or participation in bullying behaviors.¹² Thus, although we agree on the potential utility of examining bullying and victimization on the playground, we also have unique perspectives related to studying the playground. These perspectives are presented next.

FROM THE PERSPECTIVE OF AN ELEMENTARY SCHOOL PRINCIPAL

As an urban principal (DB), I believe it is vital for public schools to partner with academic researchers, and we decided

that the playground would be optimal for examining bullying and victimization behaviors. In underresourced schools like mine, the playgrounds are often supervised by the least trained, least paid, and least experienced individuals, with often at least a 50:1 children:adult ratio. Our responses to playground problems are often based on partial data slices and impressions. We decided that obtaining data from trained observers would be a phenomenal resource and tool for school improvement. Accurate data help schools to redeploy sparse resources to the areas of greatest need.

Numerous teachers report that re-engaging children after recess is their greatest challenge. From the principal's office perspective, this often seems to be the case. Issues regarding perceived slights, derogatory comments, and inappropriate play consume an inordinate amount of time for students, recess aides, classroom teachers, and ultimately the principal's office. One of our challenges is that the lunch/recess period, which is only 11% of the day, is creating 13% of the referrals. Consequently, the lunch/recess period lends itself to numerous and time-consuming issues, many of which continue well into the classroom time.

Opportunities to exercise, play, and cultivate social relationships are critical for students,¹⁸ and as a professional learning community, we strive to provide a safe and pleasant opportunity for children to play. That said, many youth participate in some aspect of bullying on the playground. As such, systematic observation of one of a school's most vulnerable times is critical for gaining insights into the realities of the students' lives and providing them with guidance in how to cope with issues like rough-housing, bullying, and disagreements. However, given our relative lack of training in observation and research protocols, it can be a challenge for most principals or teachers to apply and integrate the types of observational systems that may improve our understanding of playground experiences. Most school systems are awash in test-generated data; however, few have access to real-time data originating at challenging times, such as during recess. Thus, the opportunity to partner with professional observers provides invaluable data in our currently testing-rich world.

FROM THE PERSPECTIVE OF A RESEARCHER

As a developmental psychopathology researcher (DD), I view peer processes and the playground as important for

understanding bullying experiences. Studies using playground observations have revealed that early levels of aggression predict victimization, and continued victimization predicts growth in conduct problems.^{7,19,20} As such, a reciprocal process for victimization and antisocial behavior often emerges, as children develop reputations for being aggressive and experience higher levels of victimization.^{6,21} Moreover, victims are likely to withdraw in peer-child interactions²² and although some victimization is situational, numerous children acquire trait-like victimization status as early as kindergarten.⁶ In addition, children with behavioral or emotional difficulties may be victimized because their behavior is seen as disruptive to the larger social group.^{7,22} However, few observational studies have considered relations among bullying and victimization with behavioral and emotional difficulties among inner-city youth.

Although bullying is related to later antisocial and delinquent behavior,^{7,22–24} some bullies exhibit a good understanding of social and emotional processes, which are critical for victimization without being detected by authority figures and for recruiting other children to conspire with them in victimizing others.^{7,22} Because childhood peer difficulties may contribute to affiliating with deviant peers in adolescence,^{9,26} which in turn is associated with higher levels of aggressive, violent, antisocial, and substance use behaviors,^{11,25–27} understanding bullying and associations with deviant peers was seen as a critical goal of our partnership. Last, problems related to aggression, delinquency, and association with deviant peers are particularly salient in contextually disadvantaged neighborhoods, where familial influences are often overwhelmed by neighborhood risk factors.^{11,25,28} Given limited resources, inner-city youth potentially could benefit from early identification and intervention efforts designed to prevent violence,^{29–31} all of which are facilitated by direct observations of playground behaviors. Thus, partnering with urban principals provides an excellent solution for examining peer processes associated with these negative outcomes.

After discussions with key school personnel and other important stakeholders (e.g., parents), and combined with our knowledge of the research literature, we decided to focus our observations on aggression and victimization (physical and verbal), as well as contextual variables that may facilitate bullying (e.g., peer endorsement or other deviant talk). We used two primary strategies: Direct coding of these behaviors

using the Child-Peer Observation System (C-POC^{5,6,17}), and naturalistic observation of the playground combined with interviews of recess aides. We selected the C-POC because it permits identification of all of the behaviors of interest, and has been used to prospectively predict aggressive and depressive behaviors. Although some research has used observational methods to examine bullying, there is a dearth of literature exploring deviant talk and peer endorsement of deviant behaviors, as well as co-occurring psychological symptoms (e.g., CD, depression), which we deemed critical to consider among contextually disadvantaged youth who are at elevated risk for psychological difficulties and deviant peer affiliations. We also decided that it would be useful to supplement these individual codes by using a more naturalistic, group-based approach to observing the playground, which could tell us more about broader contextual issues. In sum, the present paper draws on our combined experiences and illustrates the utility of playground observations as a methodology for examining peer-child processes and for informing violence prevention efforts among youth residing in the inner city.

METHODS

Participants

The current study is part of a larger research program, the Child Health and Behavior Study, which is designed to evaluate social, emotional, and physical functioning among low socioeconomic status, inner-city families. The pilot data presented involve children for whom at least two playground observations and parent-reported symptom inventories were obtained ($n = 42$; $M = 7.77 \pm 1.08$ years old; 50% male; 94% African American, 6% Latino/a; median annual family income, \$15,000). The neighborhoods from which families were drawn can be characterized as an inner-city area, with high levels of crime, poverty, and homogeneity in terms of ethnic minority status.

Procedure

The study was approved by a university institutional review board. DD obtained permission from the principals of five elementary schools to send project information to parents of first- through fifth-grade children. The families were mailed a description of the study, parental consent form, and a self-addressed, stamped postcard. Parents interested in participating

in the project either returned a self-addressed stamped postcard or called to make an appointment. Parents and children provided consent and assent, respectively, before participation. Parents completed questionnaires related to their child, family, and themselves. Children worked with a trained research assistant on tasks designed to assess cognitive functioning at DD's offices, and were observed during recess on the playground at DB's school. Parents were compensated for participation and transportation. Children received a toy. A donation was made to the school for each participating child.

Individual-Based Playground Observations. Trained research assistants conducted two 5-minute observations of playground behaviors for each child using the C-POC system.^{5,6,17} This interval coding system classifies child behavior into one of five categories every 10 seconds. For the current paper, we examined the frequency of (1) negative peer interactions (including verbal and physical aggression, noncompliance), (2) rough play (e.g., gross motor activity), (3) solitary unfocused behaviors (i.e., unengaged with peers and unfocused), and (4) endorsement of deviant behavior (e.g., deviant talk, verbalizations supportive of aggression).

Coder Training. Graduate students in clinical ($n = 3$) or developmental ($n = 2$) psychology, and psychology honors undergraduate students ($n = 3$) selected by DD were trained to use the coding system and conducted observations for the present study. Training included instruction and testing on progressively more complex and demanding tasks, starting with verbal and modeled exemplars, proceeding to coding of videotapes, and finishing with coding of live playground behavior with a master coder. Training continued until a coder reached a minimum kappa agreement of 0.70 with a master coder. The master coder was an advanced graduate student in clinical psychology with coursework in observational assessment and was trained by DD, who has extensive experience in behavioral observation in naturalistic family and peer settings. We held recalibration sessions biweekly. We assessed reliability through live concurrent coding between each coder and the master coder on 20% of the observation occasions. Kappa values from this live concurrent coding ranged from 0.79 to 1.00 for all codes.

Group-Based Playground Observations. The same coders and DD also observed first- through fifth-grade children on the playground at DB's elementary school for 4 days (90

minutes per day) and spoke with playground aides about their experiences. We asked aides to describe their challenges and areas that were working well, as well as to make suggestions for improving playground functioning.

Symptom Outcomes. Parents reported on child psychological symptoms using the Child Symptom Inventory-4,^{31,32} a screening instrument for the symptoms of most childhood disorders described in the *DSM-IV*.³³ Items were scored on a scale from 0 (never) to 3 (very often) and summed to create symptom severity scores. We considered two symptom categories that are frequently associated with youth violence^{6,25} and thus relevant to violence prevention, namely, CD (15 items; $\alpha = 0.71$) and major depressive disorder (MDD; 10 items, $\alpha = 0.79$). Compared with scores derived from the community-based samples used to norm the CSI-4,³² the present sample of inner-city children was rated as exhibiting higher levels of CD, and lower levels of MDD, symptoms. Specifically, children in the current versus normative sample, respectively, received higher CD symptom ratings (boys, 1.9 vs. 1.0; girls, 1.0 vs. 0.7), and lower MDD symptom ratings (boys, 1.8 vs. 3.0; girls, 2.4 vs. 2.9). Alternatively stated, the average scores in the present sample among boys and girls, respectively, were at the 83rd and 77th percentile for CD and the 32nd and 49th percentile for MDD.

RESULTS

We examined the base rates of behaviors derived from the C-POC (Table 1). The observed playground behaviors were calculated as the percentage of time that the child engaged in each of the behaviors during a 5-minute observation period. For example, on average, youth engaged in negative peer interactions 10% of the time (range, 0%–48%) and aggression toward peers 7% of the time (range, 0%–33%), and were victimized by peers 5% of the time (range, 0%–27%). Thus, the average base rates of bullying and victimization were relatively lower than expected based on previous research; however, the ranges indicate that some youth experienced elevated levels of bullying and/or victimization on the playground. We also conducted multiple regression analyses to examine prediction from negative peer interactions, rough play, solitary unfocused behaviors, aggression, victimization, and endorsement of deviant behavior to CD and MDD symptoms. Results revealed that verbal aggression and deviant talk,

respectively, were associated with both CD (β s = .94, .86) and MDD (β = .91, .68). In addition, negative peer interactions (β = .53) and rough play (β = .41) were associated with CD symptoms. Among girls, solitary unfocused behaviors also were associated with CD symptoms (β = .73).

Consideration of broader group processes pointed to a slightly different picture. In terms of positive aspects, playground aides facilitated children’s play and children divided themselves into smaller group activities, suggesting that they were modeling the staff’s behavior. Moreover, the staff members were able to identify potential conflict and responded to escalations quickly. Children also seemed to understand the playground rules and consequences for breaking these rules.

Nevertheless, the Child Health and Behavior Study observers also noted a good deal of physical, verbal, and social (e.g., exclusion) aggression. Examples of physical aggression ranged from minor physical contact to fistfights that were observed (and encouraged) by peers. There also were a lot of provocative behaviors among children, including verbal aggression (e.g., threatening), “play” fighting (e.g., pretending to hit another child), and teasing/taunting. Some of these fights escalated very quickly, and given peer endorsement of these actions, the fights became physical almost immediately. Lining up at the end of recess tended to be the most conflict-laden time, with three fistfights observed over a 4-day period. Taken together,

the individual-level observations suggest that some specific, codeable playground behaviors are associated with CD and MDD symptoms, whereas the group-level observations suggest a more nuanced picture, with different patterns of behavior based on the availability of equipment, group dynamics, and demands on the children (e.g., lining up).

DISCUSSION

We used a CBPR framework to combine feedback from key school personnel and community stakeholders with research strategies to evaluate bullying and victimization on the playground.^{3,16,35,36} The CBPR framework was particularly useful for our goals given that we were able to jointly determine the questions to address and methods for addressing them. Although it is often challenging to develop school–academic partnerships with underresourced, urban schools because of previous negative experiences,^{3,16,35} our experiences highlight the feasibility of this approach with open, frequent communication and provision of data to inform subsequent steps and continuing collaborations.

Similar to previous research,^{5–7,25} results of the child-specific observations suggested associations among several indices of problematic peer–child processes with CD and MDD symptoms, though it is clear that the associations between peer–child processes and psychological symptoms were not uniform. Our discussions of the heterogeneity of youth playground behavior have led us to believe that there are multiple subgroups of youth who exhibit aggressive behaviors. To test this possibility, we are pursuing funding for a project that will provide assessments and interventions to youth with conduct problems. This work was informed by the playground observations and our information from community stakeholders (e.g., parents, other mental health professionals) who also have noted that there is not sufficient treatment available for youth in the community. In addition, given that school stakeholders (principal, teachers) have noted that behavioral problems from the playground often are evidenced in the classroom, we have provided in-service presentations to teachers regarding classroom-based behavioral management. We obtain feedback about the utility of these presentations and discuss alternative topics that may be useful for teachers. Our findings highlight points made by others^{1–4,12–16} about the importance of intervening with bullying at multiple levels and in multiple systems (e.g., school, teachers,

Table 1. Base Rates of Observed Playground Behaviors and Child Symptoms (*n* = 42)

Variable	Mean	Minimum	Maximum
Negative Peer Interactions	10.00%	0%	48%
Rough Play	22.00%	0%	73%
Solitary Unfocused Behavior	8.00%	0%	38%
Aggression Toward Peers	7.00%	0%	33%
Victimization	5.00%	0%	27%
Deviant Talk	1.00%	0%	17%
Conduct Disorder Symptoms	1.45	0	11
Depression Symptoms	2.13	0	17

Notes. Percentages reflect percentage of time engaged in each behavior during a 5-minute observational period.

Depression = major depressive disorder symptoms.

youth), including providing education about identifying and intervening with bullying.

More specific changes have come from our reports related to the playground observations as well. A report was developed by DD and the observers and provided to DB, who met with playground staff and implemented several recommendations. For example, one recommendation was to increase the amount of equipment available. This change increased positive, gross motor play, as well as further prosocial and positive peer experiences, which are linked to better adjustment and resilience among disadvantaged youth.^{7,37} A second recommendation, also implemented, was to increase the number of staff on the playground so that some staff can organize activities while others can walk around the playground to monitor children's behaviors, intervene with problematic situations, and potentially decrease victimization opportunities.^{7,19}

A third issue involved lining up. Because fights were more likely to occur during this time, staff are required to leave the playground with the involved children. This exacerbates the problem of already having few staff on the playground. As an extension of this recommendation, the school also incorporated incentives for lining up more quickly and quietly, which also facilitates the transition to the classroom. Our partnership thus permitted us to develop a broader sense of how peer-child processes operate among children in a relatively unstructured environment and to generate suggestions for intervention and future research. However, there are several concerns moving forward from the school's perspective. These include the number of classroom referrals that originate in the playground, more playground aides, and socializing recess so that children still have choices for play opportunities. We continue to discuss these issues and develop plans in conjunction with key personnel; nevertheless, we believe that the increase in more positive aspects of the playground experience, combined with implementing recommendations from the research team, could facilitate decreases in bullying on the playground. Continued monitoring and obtaining feedback will be critical for maintaining these gains and we will strive to generate alternative solutions as difficulties arise.

Conclusions from the Perspective of an Elementary School Principal

There are various implications that such projects generate for those of us on the front lines. It is imperative that

we best serve the children; doing so requires hard data. It is the rare teacher's or principal's program that prepares us for playground monitoring and, most important, improvement. Collaborations like ours not only strengthen recess opportunities for the children that are developmentally appropriate and psychologically important, but also lay the groundwork for more success in the classroom. For many elementary schools, recess is no longer available,¹⁸ which has a lot of detrimental consequences in my opinion. We plan to continue our collaboration between researchers and front-line implementation so that we can create a cycle of continuous improvement where children benefit and adults know that their efforts make a difference. Attaining additional data, as well as additional training provided by the research team, can help to achieve these ends.

Conclusions from the Perspective of a Researcher

Given their exposure to physical and psychosocial stressors, combined with limited resources, children residing in the inner city could benefit from early identification and intervention efforts.^{29,30} Knowledge derived from the playground provides important opportunities for identifying youth at risk for violence and victimization. Indeed, many of the observed peer processes (e.g., victimization, aggression) are associated prospectively with deviant peer affiliations, antisocial and violent behavior, psychological maladjustment, and academic difficulties.^{5-7,22,25,26} Many of these risk processes even override the impact of familial processes on child adjustment,^{8,11,25,28} reinforcing the importance of examining peer-child interactional processes as one vehicle for preventing violence among disadvantaged youth.

As a developmental psychopathology researcher, school support is absolutely invaluable for our work. The school staff highlight areas in need of improvement and thus collaborate with us in framing our research agenda. However, providing additional support in dealing with children's aggression and victimization is also crucial, and we will continue to work with the schools to increase knowledge and strategies for addressing these problematic behaviors *in vivo* on the playground and in the classroom.¹ In sum, the synergy that we established with this community-based research partnership improves not only the quality and potential implications of the work that we do, but also the applicability of our findings to the families, schools, and communities with whom we work.

The authors are particularly indebted to the families, principals, and school staff who participated in this research.

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