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With Whom and Where You Play: Preschoolers' Social Context Predicts Peer Victimization

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Abstract

This short-term longitudinal study assessed the relations between the social context of children's play (play-group size, play-group gender composition, and play setting) in the fall and peer victimization in the spring for low-income, minority, preschool girls and boys. Gender differences in these associations, as well as the moderating effect of children's individual problem behavior, were considered. Using a multiple-brief observation procedure, preschoolers' ($N = 255$, 49% girls) naturally occurring play in each type of social context was recorded throughout the fall semester. Observers also rated children's victimization and problem behaviors in the fall, and teachers rated children's victimization at the end of the school year. Findings suggested that social context variables predicted spring victimization above and beyond fall victimization and individual levels of problem behavior and that these associations varied for boys and girls. The findings signify the importance of the social context on changes in peer victimization.

Keywords

Victimization; Social Interaction; Behavior Problems; Gender

Children's peer interactions are filled with the challenge of effectively communicating about and cooperating in activities, understanding similarities, and negotiating differences. These challenges are particularly salient in early childhood as children have not yet amassed a large repertoire of social, cognitive, and behavioral skills (e.g., Gresham, Elliott, & Kettler, 2010). Interactions that are managed with relative ease can lead to positive peer experiences, but those that are more difficult to manage are likely to lead to negative peer experiences, such as victimization, exclusion, and harassment. Given this, it is not surprising that young children are exposed to relatively high rates of victimization (reported rates range from 16–54%; Kochenderfer & Ladd, 1996; Monks, Smith, & Swettenham, 2005; Perren & Alaker, 2006).

Importantly, the social contexts in which children find themselves can guide their peer interactions down more or less adaptive pathways (Bronfenbrenner, 1979). In other words, with whom children spend time and where they spend time matters (Benenson, 1993; Pellegrini, Bartini, & Brooks, 1999; Rolfe & Crossley, 1991). Studies of older children have

suggested that these aspects of children's social context are related to victimization (Parault, Davis, & Pellegrini, 2007; Salmivalli, Lagerspetz, Björkqvist & Österman, 1996). However, less is known about how these social context factors impact preschoolers' victimization. This is true despite the fact that peer victimization in young children generally occurs as a direct response to ongoing social interactions and transgressions, whereas older children may rely more on reputation or social memory in targeting victims (Crick et al., 2001).

The primary goal of the present study was to explore how three aspects of preschoolers' social contexts – play-group size, play-group gender composition, and location of play (classroom vs. outdoor playground) – related to preschool children's likelihood of being victimized. We did this by utilizing a short-term longitudinal design in which children's observed play behavior in the fall was related to spring victimization (controlling for fall victimization). In addressing this goal, we also considered whether the patterns of relations varied by child gender. Girls and boys differ in their preferences for and interactions in small and large play-groups, with male and female peers, and play outside versus inside (Benenson, 1993; Fabes, Martin, & Hanish, 2003; Hanish, Sallquist, DiDonato, Fabes, & Martin, 2012; Harper & Huie, 1998). Thus, we tested the possibility that social context variables would relate differently to victimization for girls and boys.

Another goal of the study built on the idea that social contexts may be particularly important for children who also display individual risk factors for victimization (Hanish et al., 2012; Nelson, Robinson, Hart, Albano, & Marshall, 2010; Velásquez, Santo, Saldarriaga, López, & Bukowski, 2010). Preschoolers' individual tendencies toward problematic behavior (e.g., aggressive behavior, poor impulse control, etc.) have been frequently cited as a robust predictor of peer victimization (Barker et al., 2008; Hanish et al., 2004, 2012; Kochenderfer-Ladd, 2003). Because problematic behaviors are provocative and stressful, they tend to elicit victimizing peer responses. Thus, the challenges associated with navigating complex social contexts may be exacerbated for children exhibiting high levels of problem behavior. This increases the likelihood that aggressive interactions and, consequently, victimization, occur. Thus, children's problem behavior was evaluated as a moderator of the relations between social context variables and later peer victimization.

The Social Context of Preschool Girls' and Boys' Peer Victimization

Preschool girls and boys have a great deal of flexibility in shaping their social contexts. Much of the preschool day is typically devoted to free play (children can choose with what and with whom to play) and semi-structured play (children can choose, from a set of options, with what and with whom to play). These structural aspects of preschool settings are so pervasive that they are seen across a range of preschool settings, from university affiliated preschools to local public preschools to migrant daycare (Harper & Huie, 1998; Martin & Fabes, 2001; Ostrov, 2006; Pellegrini, Long, Roseth, Bohn, & Van Ryzin, 2007; Rolfe & Crossley, 1991). Thus, preschoolers can have ample opportunities to make choices about whether to play in dyads or in larger groups, whether to play with male and/or female peers, and whether to play in the classroom or on the playground. Each of these choices confers varying levels of complexity, making some social contexts more or less difficult to manage, thus increasing or decreasing the likelihood that victimization occurs.

Play-group size

Compared to older children, play with fewer peers is normative for young children (Barnes, 1971; Harper & Huie, 1998). Because of its larger size, group play may be more demanding and sophisticated than solitary or dyadic play, and this increased complexity may lead to increased conflict among peers (Hawley, 2003). This may be particularly true for children who are less able to regulate their emotions (Crick et al., 2001). Thus, it may be that when peers play in groups, relative to dyads, conflict occurs more frequently, and thus is associated with greater victimization.

However, an alternative perspective comes from social psychological research on adults, suggesting that dyads exhibit more tension and feel stronger emotions than larger groups (Moreland, 2010). Larger groups may have the ability to absorb negative behaviors, like antagonism and hostility, but dyads do not (Slater, 1958). In fact, dyadic relationships have been characterized by increased intensity compared to larger groups (Moreland, 2010), which may intensify the potential for conflict and antagonistic feelings.

Extrapolating these findings to young children, who are developmentally less socially and cognitively skilled than adults, perhaps both dyads and groups have the potential to evoke hostility, but larger groups are better equipped to absorb this behavior before aggression erupts. For one, this may occur because more time in groups means more opportunities for friendship formation, that can then buffer against antagonistic interactions and victimization, because victimizers fear retaliation from their target's friends. Alternatively, it may be that more developmentally advanced and regulated children are better able to manage and engage in group play (Howes, 1983; Rosenblatt & Howes, 1995). Thus, they are less likely to be victimized because they play with other relatively regulated children, and the play itself is less forceful and conflicted.

Play-group gender composition

One of the most fundamental decisions in selecting play partners is whether to play with boys or girls and, most often, children prefer same-gender peers (Martin, 1994; Martin, Fabes, Hanish, Leonard, & Dinella, 2011). Children typically spend significantly more time with same-gender than with other-gender or mixed-gender peers (groups that include at least one boy *and* one girl; e.g., Fabes et al., 2003; Martin & Fabes, 2001). Yet, there are also individual and situational differences in children's gender preferences (Pellegrini et al., 2007). However, most prior research speaks to same- or other-gender, as opposed to mixed-gender play, and victimization.

Same-gender play—Hypotheses regarding same-gender play and victimization have been built largely on evolutionary theories, which posit that aggression should more frequently involve same-gender peers, vying with one another to gain control and access to resources coveted by same-gender rivals (although this work typically focuses on boys; e.g., Rosvall, 2011). Thus, same-gender play might create more opportunity for conflict and competition and, consequently, victimization. Extant research using observational methodology suggests that same-gender aggression is more frequent than other-gender aggression (Crick et al., 2006; Ostrov, 2006; Pellegrini et al., 2007). However, once the rate of same-gender play is

controlled, rates of same- and other-gender victimization are more similar (Hanish et al., 2012; Ostrov & Keating, 2004). Extrapolating these findings to the present study, we expect same-gender play to be positively related to later victimization.

Other-gender play—Differences in girls' and boys' interactional styles and the large amount of time exposed to gender-typed interaction styles (due to gender segregation) may make other-gender interactions relatively difficult to manage. Boys, for instance, tend to be more aggressive and active in play, whereas girls tend to be more intimate and cooperative (Belle, 1989; Benenson & Christakos, 2003; Fabes et al., 2003). For example, a boy might act more forcefully than is expected and preferred by his female play partner, leading to conflict between the pair. Play with only other-gender peers tends to be relatively uncommon, to involve less familiar play activities, and to be less comfortable for children to negotiate (Fabes et al., 2003, 2004; Goble, Martin, Hanish, & Fabes, 2012). Thus, by virtue of its relative rarity, other-gender play may be a difficult interaction to manage and likely to be associated with increases in victimization.

Mixed-gender play—The limited extant research on mixed-gender play suggests that victimization should be less common in mixed-gender play than in other play contexts (at least for boys; Fabes et al., 2003). This could be particularly true for disruptive boys; when playing in mixed-gender groups, boys' interactions tended to be less forceful and more cooperative (Fabes et al., 2003). Dysregulated boys, who are at risk of becoming overly aroused when playing with other boys, may particularly benefit from playing in mixed-gender groups because of socialization effects from girls who are typically less aggressive and more cooperative (Martin & Fabes, 2001).

Play setting

Children's play setting is another key contextual variable influencing rates of victimization. For example, when preschoolers play outside on the playground (as opposed to inside in the classroom), they are afforded the opportunity for more energetic, active play in larger groups than is typically available in indoor play. They have more freedom to move, more room to run around, and teachers' presence is felt less (Rolfe & Crossley, 1991; Smith & Connolly, 1986). In comparison, activities in classrooms tend to be more constrained and controlled, with relatively more teachers around, and smaller group sizes (Rolfe & Crossley, 1991).

Because these settings offer different affordances for interactions with peers, preschoolers' tendency to play outside on the playground (when given a choice of where to play, as was the case for preschoolers in the current sample) may be an important predictor of victimization. However, very little research has assessed this relation. Research on older children (9- to 14-year olds) suggests that more bullying occurs on the playground than in the classroom (Borg, 1999; Charach, Pepler, & Ziegler, 1995). Therefore, it seems reasonable to expect that preschool children who spend more time outside are likely to have an increased risk of peer victimization. This seems especially likely considering that young children already have difficulty relative to older children regulating their emotions and behaviors. In an outdoor setting, with more activity and less supervision, children are likely to become aroused, which could increase the risk of conflict and victimization.

This may be particularly true for girls. Research shows that girls prefer to spend less time outside and in active play than boys, and girls' interactions tend to be more quiet and sedentary (Belle, 1989; Benenson & Christakos, 2003). Given this, it is possible that the more physically intense interactions that are common outside are particularly stressful for girls because girls are less familiar with and less equipped to deal with these kinds of active, physical interactions. This may lead to increased dysregulation and victimization for girls (compared to boys) engaging in outside play. Boys may be better equipped to handle this active play because they more frequently engage in and enjoy this type of play (Belle, 1989; Benenson & Christakos, 2003). As such, it may be that more time spent in outside play relative to inside play is less likely to elicit aggressive interactions for boys than for girls.

The Moderating Effect of Problem Behavior

The relation between social context and victimization may not be uniform across all children. Some children behave in ways that make them particularly vulnerable to victimization, and more sensitive to particular contexts. For example, children's aggressive, antagonistic, and problem behaviors have been shown to be robust predictors of victimization (Barker et al., 2008; Hanish et al., 2012). When young children with problem-behavior are in social contexts that are particularly challenging to manage, they may be prone to become dysregulated, thereby provoking retaliatory victimization by others (Leadbeater & Hoglund, 2009; Olson, 1992). Thus, the combination of stressful social contexts that challenge children's social skills along with individual tendencies toward under-controlled or dysregulated behaviors may place children at the highest risk for later victimization.

The Present Study

The aim of the present, short-term longitudinal study was to examine multiple features of the preschool child's social context (play-group size, play-group gender composition, and play setting) that may influence changes in preschool children's victimization. In addition, we explored potential gender differences, as well as potential moderating effects of children's problem behavior.

It was expected that time spent in relatively difficult-to-manage social situations in the fall, such as those involving dyadic play, same-gender and other-gender play (versus mixed-gender play), or outside play would put children at risk for increased victimization in the spring (above and beyond levels of victimization in the fall). However, gender differences were expected based on girls' and boys' differential comfort and experience in certain social contexts. In addition, we expected these patterns to be moderated by children's individual tendencies to exhibit problem behaviors, such that the combination of high problem behaviors and difficult to manage social contexts would result in the greatest levels of increased victimization in the spring.

These associations were examined in a sample of low-income, minority preschool children. Although the extant literature has predominantly considered higher income, less ethnically diverse samples, it is important to consider if the proposed relations are found in a more ethnically diverse sample, particularly because these children are at-risk for poor school and

social adjustment (Dodge, Pettit, & Bates, 1994; Patterson, Kupersmidt, & Vaden, 1990; Rimm-Kaufman, Pianta, & Cox, 2000). Thus, the current study helps elucidate how the social context impacts victimization on this understudied population.

Method

Participants

Participants were preschool children in 18 Head Start classrooms from an urban southwestern city, sampled in three cohorts over 3 consecutive years. Children in participating classrooms were recruited at the beginning of the academic year at parent meetings, and at pick-up and drop-off times. Out of a possible 311 children, 308 received parent permission to participate (recruitment consent rate of 99%). Fifty-three children were dropped from analyses because they did not have a sufficient number of observational data points or did not have teacher reports on the dependent variable (because they were chronically absent and/or left the school during the fall semester). Sixteen children repeated preschool during the second or third year of data collection. To avoid dependencies, only data from their final year of preschool was utilized.

The final sample consisted of 255 children, 131 boys (M age = 52.70 months, SD = 4.875, range 38–60 months) and 124 girls (M age = 52.12 months, SD = 4.82, range 37–60 months). Children were Hispanic (74%), Caucasian (8%), African American (7%), Native American (2%), Asian, Pacific Islander, or Middle Eastern (2%), or other (6%). The majority of children were from low socioeconomic status families (83% earned below \$30,000 per year). Almost half of the children (46%) came from two-parent married families, and the remaining children were from single-parent families (27%) or two-parent non-married families (27%).

Procedures and Measures

As part of a larger longitudinal study of the effects of same- and other-gender peer relationships on children's school and social adjustment, children were observed in their classrooms and on their outdoor playgrounds. Trained observers coded children's social and interpersonal behaviors over the fall semester of preschool. These same observers also rated children's tendencies to display problem behaviors and to be victimized in the fall of the preschool year. At the end of the preschool year (May), lead teachers rated children's tendencies to be victimized.

Observed interpersonal behaviors—Children were observed throughout the school day, across the fall semester (Time 1). A multiple 10-second observation protocol was used (Martin & Fabes, 2001). Specifically, trained observers (N = 7–13 per wave, 93% female) followed a randomized list of children, beginning at the top of the list, and starting over once the list was completed. The list was reversed midway through the semester to control for order effects.

If a child was available for coding (i.e., present and not in the restroom or napping), the observer recorded the child's behavior and peer play partners. Of interest in the present study were interpersonal behavioral codes indicating whether the child was in a dyad (child

was engaged in a verbal or physical exchange or engaged in parallel play with a single peer), or in a group (child was engaged with two or more peers). When a child was interacting with peers, the peers' gender was coded (same-gender playing with only same-gender peers, other-gender playing with only other-gender peers, or mixed-gender when playing with both same- and other-gender peers). Finally, the child's location, either outside on the playground or inside the classroom, was coded.

A total of 29,242 observations were collected in the fall. For the current study, the only observations included were those obtained when children had choice in play partners and could choose whether to play inside or outside (i.e., free play and semi-structured play). Thus, the total number of observations for this study was 18,011, with a mean of 61.40 per child ($SD = 27.43$, range = 12–132). The large range in observations was due to differences in attendance and/or availability of each child for observation. However, only 6% of the sample had fewer than 20 observations. Two observers independently coded the same child for 7% of all observations to ensure reliability, and kappas for all interpersonal behavioral codes were above .80.

From these observations, each child received a proportion score for dyadic, group, same-gender, other-gender, mixed-gender, and outside play. For example, for Child A dyadic play was calculated as the number of observations of Child A in dyadic play divided by the total number of observations Child A (to control for differences in number of observations). Play setting could only be coded as either playground (outside) or classroom (inside), so the proportion score for this behavior was based on observations outside. A proportion score was also calculated assessing overall social interaction, used to control for individual differences in children's sociability.

Observer-rated individual behaviors—At Time 1 (T1; mid-way through the fall semester), trained observers rated children on 17 items that captured their social behaviors at school (Castle et al., 2011). All items were assessed on a 5-point Likert scale, ranging from *Not At All True* to *Very True*. A Problem Behavior Score was calculated by averaging scores on 6 of the items, with one item each assessing anger, impulsivity, aggression, compliance (reverse coded), whines, and disruptive ($\alpha = .92$). In addition, one item assessed victimization (i.e., “This child is the target of peers’ attacks [e.g., is hit, called names, told to go away]”) and was used to control for initial levels of peer victimization. The remaining 10 items on this measure were not of relevance to the present study.

Teacher-rated victimization—Much past research on young children has relied on teacher reports of peer victimization because teachers are better able to report on victimization than are preschoolers (Barker et al., 2008; Crick, Casas, & Ku, 1999; Crick et al., 2006; Monks et al., 2003). This is because young children still have relatively limited social cognitive skills, often making judgments of their own or their peers' victimization unreliable. In addition, teacher-child ratios are quite high in preschool such that adults closely supervise children. For these reasons, preschool teachers are considered to be knowledgeable raters of the peer interactions occurring within their class. At Time 2 (T2; at the end of the spring semester), lead teachers rated each child's victimization using a modified form of Crick et al.'s (1999) measure, which consisted of seven items measured on

a 5-point Likert scale, ranging from *Almost Never True* to *Almost Always True*. The measure contained items pertaining to relational victimization (e.g., “This child gets ignored by playmates when they are mad at him or her”), physical victimization (e.g., “This child gets pushed or shoved by peers”), and verbal victimization (e.g., “This child is called mean names”). All seven items were averaged to create an overall victimization score for each child ($\alpha = .87$).

Results

The aim of this short-term longitudinal study was to explore how various aspects of preschool girls’ and boys’ social context in the fall were related to their likelihood of being victimized by peers later in the spring, while controlling for previous levels of victimization. In addition, we considered how the social context might vary according to children’s levels of problem behavior. To accomplish these goals, we first examined the descriptive properties of the variables of interest. Independent samples *t*-tests and analyses of variance (ANOVAs) were computed to examine within and between group differences in study variables. In addition, zero-order correlations were computed among all variables of interest. Finally, several hierarchical multiple regression analyses were computed to assess prediction of T2 victimization by social context, gender, and problem behavior variables.

Descriptive Analyses

All variables were normally distributed, as indicated by skewness of less than two and kurtosis less than seven (Tabachnick & Fidel, 2006; see Table 1). A repeated measures analysis of variance was conducted to compare time spent in dyadic play and group play. Results indicated that children spent more time in dyadic play than group play, $F(1, 253) = 66.88, p < .001$. An additional repeated measures ANOVA was conducted to test for differences in same-, other-, and mixed-gender play. This analysis indicated that there were significant differences in play-group gender composition, $F(2, 252) = 295.15, p < .001$. Not surprisingly, post hoc tests revealed that children spent significantly more time in same-gender than in either other-gender or mixed-gender play, but did not significantly differ on their amount of other-gender versus mixed-gender play (see Table 1).

Mixed ANOVAs (with gender as the between subjects factor and play group size or gender composition as the within subjects factor) and independent samples *t*-tests were conducted to test for gender differences in each of the study variables. ANOVAs revealed no gender differences in play group size ($F[1, 253] = 1.56, ns$) or play-group gender composition ($F[1, 252] = 1.59, ns$). Independent samples *t*-tests indicated that boys displayed significantly higher levels of T1 problem behavior than did girls, $t(253) = 3.59, p < .001$. Boys were also significantly more victimized than girls at T2, $t(253) = 2.85, p < .01$; however, only marginally significant differences were found between boys and girls on T1 victimization, $t(253) = -1.70, p < .09$. No other significant gender differences were obtained.

Correlations Among Variables

Zero-order correlations were computed separately for boys and girls to assess the relations among variables (see Table 2). Fisher’s *r*-to-*z* tests indicated that only two correlations were

significantly different for girls and boys. Specifically, the correlations between outside play and victimization (both at T1 and T2) were significantly stronger for girls than for boys ($z_s \geq 1.70, p_s < .05$).

Relations of Social Context Variables to Victimization for Girls and Boys

To test the hypothesized relations, hierarchical multiple regression analyses were conducted. All analyses included T1 victimization as a covariate. In addition, T1 proportion of social interaction was also included as a covariate, to control for overall levels of sociability. Including this index controls for differences in children's tendencies to engage their peers, thereby strengthening the degree to which our results reflect differences across social contexts rather than individual differences in children's social tendencies. In each regression analysis, T1 victimization, social interaction, and gender were entered in the first step as covariates. In the second step, problem behavior and social context (dyadic, group, same-gender, other-gender, mixed-gender, or outside play) were entered. In the third step, multiplicative interaction terms of problem behavior and social context, social context and gender, and problem behavior and gender were entered. In the fourth step, a three-way interaction term of social context, problem behavior, and gender was entered. As suggested by Aiken and West (1991), all predictors were centered prior to running analyses. Significant gender interactions were probed by running analyses separately for boys and girls. Interactions between problem behavior and social context were probed by holding problem behavior constant at the centered mean, and at one standard deviation above and below the centered mean. The slopes of simple regression lines of social context predicting victimization were calculated separately at those three values of problem behavior.

In all analyses, higher T1 victimization, greater proportion of T1 social interactions (marginally), more T1 problem behavior, and being a boy predicted T2 victimization (see Tables 3 – 8). Thus, all significant effects of social context variables and moderating effects were evident above and beyond the contributions of initial levels of T1 victimization, social interaction, gender, and problem behavior.

Play-group size—Proportion of dyadic play significantly predicted victimization, such that higher levels of T1 dyadic play were associated with higher T2 peer victimization, after controlling for T1 peer victimization (see Table 3). The interaction between problem behavior and dyadic play was only marginally significant. No other interactions were significant.

In the regression with group play, there was a significant main effect of group play (see Table 4). However, this effect was subsumed by a significant group play X gender interaction. Probing the interaction revealed a significant main effect of group play only for boys, such that boys who spent more time in group play at T1 had decreased T2 victimization ($\beta = -2.36, p < .01$). The interaction between group play and problem behavior was not significant ($\beta = -.94, p > .05$). For girls, there was neither a significant main effect of group play nor a significant interaction ($\beta_s = .47$ and $-.56, p_s > .05$, respectively).

Play-group gender composition—In analyses both of same- and other-gender play, there were neither significant main effects or significant interactions (see Tables 5–6). The interactions involving gender were also not significant.

In analyses of mixed-gender play, the main effect of mixed-gender play was not significant (see Table 7). However, there was a significant interaction between problem behavior and mixed-gender play. Probing this interaction indicated that as time spent in mixed-gender play at T1 increased, victimization at T2 decreased, but this relation was stronger for those high in problem behavior. For children who were low in problem behavior, the relation between time spent in T1 mixed-gender play and victimization was not significant. The slopes for low, medium, and high problem behavior were -2.34 , -3.83 , and -5.34 , $ts(253) = -1.10$, -2.00 , and -2.70 , $ps > .05$, $< .05$, and $< .01$, respectively.

Play setting—Neither the main effect of outside playground play nor the interaction between problem behavior and gender were significant (see Table 8). The interactions of outside play and problem behavior and of problem behavior and gender were marginally significant. However, these effects were subsumed by a significant three-way interaction of outside play, problem behavior, and gender. When analyzed separately for girls and boys, results indicated that neither the interaction between outside play and problem behavior nor the main effect of outside play were significant for boys ($\beta = -.20$ and $-.38$, $ps > .05$, respectively). For girls, there was a significant interaction between problem behavior and outside play ($\beta = 1.21$, $p < .01$), but no significant main effect of outside play ($\beta = .29$, $p > .05$). Probing the interaction between problem behavior and outside play indicated that as time spent playing outside on the playground at T1 increased, victimization at T2 increased, but this relation was stronger for girls who were high in problem behavior. For girls who were low in problem behavior, there was no relation between time spent in outside play and victimization. The slopes for low, medium, and high problem behavior for girls were $-.21$, $.43$, and 1.56 , $ts(253) = -.76$, 1.78 , and 3.54 , $ps > .05$, $> .05$, and $< .001$, respectively.

Discussion

The purpose of this short-term longitudinal study was to explore how aspects of preschoolers' social context were associated with their likelihood of being victimized. Social context variables representing T1 play-group size, play-group gender composition, and play setting were associated with T2 victimization even after controlling for T1 victimization and sociability, although some relations varied for boys and girls. Only limited support was found for the idea that social context effects varied by level of problem behavior. Overall, the findings highlight how young children's play choices contributed to their victimization. These findings have implications for understanding the contextual influences on victimization, and they speak to how preschool classrooms and other social settings might be structured to minimize peer victimization. In addition, these findings extend current work in this area by utilizing a sample of low-income, minority preschool children who are at-risk for social and academic adjustment problems.

Play-Group Size

We found that victimization in the spring (T2) increased with greater dyadic play in the fall (T1). Group play was unrelated to victimization for girls, but for boys, time spent in group play at T1 was related to decreased victimization at T2 (controlling for T1 victimization). Thus, T1 group play appeared to buffer against boys' later victimization. Research with adults has shown that dyads can be difficult to manage, as compared to groups, because of the increased emotionality and intensity that accompanies dyadic interactions. This is perhaps because groups have the ability to buffer against some of the antagonism that can occur in interactions (Moreland, 2010; Slater, 1958). The present findings lend support to this idea and hint that the same processes might operate for young children.

However, we did not find uniform results in terms of group play for boys and girls. For girls, there was no relation between group play and victimization, but for boys, group play was related to lower levels of later victimization. This may be clarified by considering gender differences in group play. Boys' group play is typically characterized by cooperative, rule-governed activities (e.g., sports), whereas girls tend to prefer more informal, less rule-oriented games (Belle, 1989). Thus, for boys, group play may not only help to absorb negative behaviors, but may also re-channel these behaviors into more active, rough-and-tumble type play that is rule-governed, thus decreasing overall aggressive interactions. Alternatively, it may be that boys who engage in more group play are themselves more mature and regulated, which would reduce overall victimization within the group. Of course, it could be both – mature and regulated boys respond relatively positive to larger rule-governed group play and the combination of these reduces victimization.

Play-Group Gender Composition

Although we expected that both same- and other-gender play would be associated with increased victimization, we did not find support for these hypotheses. Importantly, however, mixed-gender play (e.g., playing with both a same- and other-gender peer) was protective against future victimization, particularly for children who have tendencies to become dysregulated. This finding supports past research suggesting that victimizing interactions were less common in mixed-gender play than same-gender or other-gender play contexts (at least for boys; Fabes et al., 2003).

Mixed-gender play is characterized by certain structural features that may explain its possible protective effect. For instance, Fabes et al. (2003) found that mixed-gender play was more likely to occur near adults. Playing near an adult may inhibit dysregulated children from aggressive actions in mixed-gender play because they are more constrained by teacher presence, and thus have less opportunity to engage in active and dysregulated play (Rolfe & Crossley, 1991; Smith & Connolly, 1986). Alternatively, the presence of multiple group members may help to minimize the likelihood of victimization. As discussed above, engaging in group play was protective against later victimization, at least for boys. Because mixed-gender play, by our definition, involves group play, it may reduce victimization by its nature of involving multiple members of the play group. Future research is needed to explore interactions such as these between social contexts.

Alternatively, the protective effects of mixed-gender play may be due to the unique nature of mixed-gender interactions. Researchers have suggested that mixed-gender play is beneficial for children of both genders, in that it allows boys and girls to engage in different types of activities, and learn a wider repertoire of skills and abilities (Fabes et al., 2003; Goble et al., 2012; Jarvis, 2006). For instance, girls and boys are cited as having different interactional styles and play styles (Belle, 1989; Benenson & Christakos, 2003; Maccoby, 1998), which are further gender differentiated by same-gender play. However, frequent interactions with a group of mixed-gender peers may allow children to engage and learn interactional styles typical of both genders, rather than only their own gender. Having this wider skill-set of interactional styles may make future interactions easier, allowing a child to easily adapt to and understand the actions of both same- and other-gender peers. This ability to more effectively get along with a wider range of peers would likely result in decreased antagonistic interactions, and decreased victimization overall.

Play Setting

Findings for play setting also varied by gender. Specifically, for girls with high levels of problem behavior, time spent in outside play at T1 was associated with increased victimization at T2. This suggests that outside play is particularly difficult to manage for girls high in problem behavior. This may be because girls are less familiar with the high stimulation and active play that occurs outside (Belle, 1989; Benenson & Christakos, 2003). This heightened stimulation and activity may be over-arousing for girls with high levels of behavior problems. Consequently, they may be less equipped to handle this interactional style, which then leads to increased dysregulation and victimization.

For boys, there was no association between T1 outside play on the playground and T2 victimization. As hypothesized, this may be explained by the fact that boys are more likely to engage in high energy, outside play (Belle, 1989; Benenson & Christakos, 2003). By nature of its relative familiarity, boys are likely better equipped to handle the conflict and dysregulation that may accompany outside play. Thus, if boys can better manage this highly stimulating play, it may not lead to increases in victimization. As such, for boys, unlike for girls, outside play did not emerge as a social context that predicted increases in victimization.

Conclusions and Directions for Future Research

Overall, the findings of this study illustrate how various aspects of the preschool social context impact later victimization, controlling for earlier victimization, and how this differs for boys and girls. It should be noted that, in the present study, victimization was assessed by different raters at T1 and T2 (trained classroom observers at T1, lead teachers at T2). This is worth noting because predictions of T2 victimization cannot be interpreted as change over time, given that the assessments at T1 and T2 were not parallel. Additionally, although the assessments of victimization by teachers and trained observers were positively correlated, the correlations were likely lower than correlations by the same rater would have been. Thus, results of the current study may constitute a more liberal estimate of the effect of the social context on later victimization. Future research examining the effect of the social context on victimization utilizing the same reporters would provide a more conservative test

of these effects. We assumed that the effects of social context on preschoolers' likelihood of being victimized were direct – that is, that the social context impacted the likelihood that victimizing interactions would erupt. Instead (or in addition), it is possible that reputational patterns or prior interaction histories lead children to target victims outside of their ongoing peer interactions. Given the developmental level of the sample and the fact that other research has suggested that victimization in early childhood is often triggered in the moment, rather than by reputational factors, this is a reasonable conclusion (Crick et al., 2001; Hanish et al., 2012). In the present study, however, we did not observe victimization directly. Thus, it was not possible to determine the process through which social contexts have their effects. Future research is needed to more directly assess the extent to which victimization occurs in the context of ongoing interactions. In doing so, it would be useful to study how the social context variables interact with one another. For instance, the complementary findings regarding mixed-gender and group play may be due to an interaction between the two.

We studied young children's social choices, rather than teachers' social proscriptions. By providing more structure and control to preschoolers' social interactions, teachers may be able to mitigate these effects. For example, mixed-gender play seems to be an important play context for preschoolers. Thus, it may be beneficial for teachers to enhance and encourage mixed-gender play because of its apparent protective function. Furthermore, it may be helpful for teachers to provide support and training in how to communicate and cooperate with peers, especially in dyads, and to further structure outside playgrounds to minimize the possibility that interactions lead to negative outcomes. Contextual changes such as these may be much easier than attempting to change individual behavioral tendencies, and thus may be an attractive option for teachers and educators hoping to reduce peer victimization.

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Table 1

Means and Standard Deviations of Study Variables

Variable	Total		Boys		Girls	
	M	SD	M	SD	M	SD
Victimization(T1) ^a	1.61	.90	1.52	.79	1.71	.99
Social Interaction(T1) ^b	.01	.01	.01	.01	.01	.01
Dyadic Play(T1) ^b	.30	.10	.30	.10	.30	.09
Group Play(T1) ^b	.23	.09	.22	.09	.24	.09
Outside Play(T1) ^b	.40	.19	.39	.19	.41	.19
Same-Gender Play(T1) ^b	.30	.13	.30	.14	.31	.12
Other-Gender Play(T1) ^b	.12	.07	.11	.07	.12	.07
Mixed-Gender Play(T1) ^b	.11	.06	.11	.08	.12	.06
Problem Behavior(T1) ^a	1.76	.89	1.95***	.99	1.56***	.73
Victimization(T2) ^a	1.67	.71	1.79**	.80	1.54**	.57

Note. Ns = 131 boys, 124 girls.

^a Rated on a 5-point Likert scale.

^b Calculated as a proportion score out of total number of observations.

** Means for boys and girls within the same row differ significantly at $p < .01$.

*** Means for boys and girls within the same row differ significantly at $p < .001$.

Table 2

Correlations of Study Variables by Gender

Variable	1	2	3	4	5	6	7	8	9	10
1. Victimization(T1)	—	-.13	.01	-.15	-.16	.11	-.13	.04	.35***	.27**
2. Social Interaction(T1)	-.19*	—	.39***	.35***	.42***	.02	.16	-.06	-.17	.12
3. Dyadic Play(T1)	-.14	.46***	—	-.12	.68***	.19*	-.27**	.05	-.03	.23**
4. Group Play(T1)	-.06	.24**	-.09	—	.23**	.00	.74***	-.20*	-.04	-.25***
5. Same-Gender Play(T1)	-.18*	.51***	.62***	.33***	—	-.41***	-.27**	-.11	-.11	.01
6. Other-Gender Play(T1)	-.01	.03	.26**	-.07	-.41***	—	.16	.13	-.11	.09
7. Mixed-Gender Play(T1)	.08	.05	-.13	.68***	-.12	.08	—	-.04	-.07	-.16
8. Outside Play(T1)	.25***	-.01	.24**	-.15	.05	.22*	-.08	—	.10	-.08
9. Problem Behavior(T1)	.47***	-.22*	-.06	-.22*	-.19*	.16	.07	.10	—	.33***
10. Victimization(T2)	.38***	-.04	.16	-.06	.06	.09	.12	.19*	.39***	—

Note. *Ns* = 131 boys, 124 girls. Correlations for boys are presented above the diagonal, correlations for girls are presented below.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 3

T1 Problem Behavior, Dyadic Play, and Gender Predicting T2 Victimization

	β	R^2	R^2	F
Step 1 Victimization	.25***	.13	.13	12.91***
Social Interaction	12.17+			
Gender	-.31***			
Step 2 PB	.23***	.24	.10	16.83***
Dyadic	1.45***			
Step 3 PB X Dyadic	.85+	.25	.01	1.29
Dyadic X Gender	-.20			
PB X Gender	-.04			
Step 4 Dyadic X PB X Gender	.54	.25	.00	.25

Note. Ns = 131 boys, 124 girls. PB=Problem Behavior

+ $p<.08$.
* $p<.05$.
** $p<.01$.
*** $p<.001$.

Table 4

T1 Problem Behavior, Group Play, and Gender Predicting T2 Victimization

	β	R^2	R^2	F
Step 1				
Victimization	.25***	.13	.13	12.91***
Social Interaction	12.17 ⁺			
Gender	-.31***			
Step 2				
PB	.23***	.22	.08	13.05***
Group	-.93*			
Step 3				
PB X Group	-.88	.24	.03	2.71*
Group X Gender	1.92*			
PB X Gender	.08			
Step 4				
Group X PB X Gender	.81	.24	.00	.42

Note. *Ns* = 131 boys, 124 girls. PB=Problem Behavior

⁺ $p < .08$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 5
T1 Problem Behavior, Same-Gender Play, and Gender Predicting T2 Victimization

	β	R^2	R^2	F
Step 1 Victimization	.25***	.13	.13	12.91***
Social Interaction	12.17 ⁺			
Gender	-.31***			
Step 2 PB	.24***	.21	.07	11.22***
Same-Gender	.28			
Step 3 PB X Same	.65	.22	.01	1.01
Same X Gender	.54			
PB X Gender	-.01			
Step 4 Same X PB X Gender	-.25	.22	.00	.09

Note. Ns = 131 boys, 124 girls. PB=Problem Behavior

⁺ $p < .08$.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

Table 6
T1 Problem Behavior, Other-Gender Play, and Gender Predicting T2 Victimization

	β	R^2	R^2	F
Step 1 Victimization	.25***	.13	.13	12.91***
Social Interaction	12.17+			
Gender	-.31***			
Step 2 PB	.24***	.21	.07	11.65***
Other-Gender	.71			
Step 3 PB X Other	-.03	.21	.00	.21
Other X Gender	-.92			
PB X Gender	-.02			
Step 4 Other X PB X Gender	.45	.21	.00	.01

Note. Ns = 131 boys, 124 girls. PB=Problem Behavior

+ $p<.08$.
* $p<.05$.
** $p<.01$.
*** $p<.001$.

Table 7

T1 Problem Behavior, Mixed-Gender Play, and Gender Predicting T2 Victimization

	β	R^2	R^2	F
Step 1 Victimization	.25***	.13	.13	12.91***
Social Interaction	12.17 ⁺			
Gender	-.31***			
Step 2 PB	.23***	.21	.08	11.69***
Mixed-Gender	-.77			
Step 3 PB X Mixed	-1.67*	.23	.02	2.58 ⁺
Mixed X Gender	2.07			
PB X Gender	.04			
Step 4 Mixed X PB X Gender	2.47	.24	.01	2.13

Note. Ns = 131 boys, 124 girls. PB=Problem Behavior

⁺ $p < .08$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 8

T1 Problem Behavior, Outside Play, and Gender Predicting T2 Victimization

	β	R^2	R^2	F
Step 1 Victimization	.25***	.13	.13	12.91***
Social Interaction	12.17 ⁺			
Gender	-.31***			
Step 2 PB	.24***	.20	.07	10.95***
Outside	-.08			
Step 3 PB X Outside	.16 ⁺	.21	.01	.96
Outside X Gender	.73 ⁺			
PB X Gender	-.02			
Step 4 Outside X PB X Gender	1.27**	.23	.02	6.00*

Note. Ns = 131 boys, 124 girls. PB=Problem Behavior

⁺ $p<.08$.
* $p<.05$.
** $p<.01$.
*** $p<.001$.