

Bullying in Early Childhood: The Bully Role and its Associated Adjustment Outcomes



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Introduction

There has been extensive research on bullying in middle childhood and adolescent samples, with minimal research on bullying in early childhood (Monks & Coyne, 2011). It is important to focus on this phenomenon in preschool samples given previous research in these older samples suggesting a significant correlation between bullying and negative adjustment outcomes later in life, for both bullies and victims (Hanish et al., 2013).

There has been debate among researchers over the definition of bullying, with no universal agreement on which components comprise the term. Most researchers use the definition developed by Olweus (1993), characterizing bullying by three distinct criteria: intentionality, repetition, and power imbalance (CDC, 2014). Each of these components are necessary in order to define bullying, and in isolation, would be inadequate to address this construct appropriately (Greif & Furlong, 2006).

There are several related, but distinct theories that support the existence of bullying in early childhood: the social dominance theory and the social information-processing model. The social dominance theory suggests that bullying is a form of proactive aggression, used as a means to strategically obtain access to resources and accomplish goals (Ostrov & Crick 2007; Pellegrini et al., 2010). On the other hand, the social informational-processing model (SIP) proposes that children who use aggression and bullying tend to interpret social cues as threatening or biased, and respond to the interaction in a hostile manner (Crick & Dodge, 1994).

Because of the implications on psychosocial functioning, it is imperative to understand the specific outcome measures associated with bullying in early childhood, according to the presented theories. In support of the social dominance theory, Hawley's developmental ethological model of social dominance (1999) suggests that socially dominant preschoolers, who use bullying and are perceived as being "socially central," are accepted by peers (Hawley, 1999). In support of the SIP model, Ostrov and Godleski's (2010) integrative gender-linked model suggests that bullies in preschool have maladaptive outcomes, such as depression and anxiety (Ostrov & Godleski, 2010).

The current study is designed to examine: 1) the existence of the bully role in early childhood and its stability over time; 2) the specific outcome measures (e.g., peer acceptance, depression, and anxiety) uniquely associated with bullying in this developmental period.

Participants

Participants included 91 (42 girls) children (M=46.70 months old; SD=6.98) from early childhood schools in Buffalo, NY, as a secondary analysis of an existing dataset. Children had relatively diverse ethnic backgrounds: 2.2% African American/Black, 9.9% Asian/Pacific Islander/Indian, 65.9% Caucasian/White, 4.4% Hispanic/Latino, 14.3% Multi-Racial, 1.1% Native American, 1.1% other, and 1.1% unknown. For this study, children were recruited in two different cohorts from the same schools within a larger short-term longitudinal study. Estimated attrition was relatively small, at around 6%.

Method

Teacher-Report of Bullying. An adapted version of the Preschool Proactive and Reactive Aggression- Teacher Report (PPRA-TR), originally developed by Ostrov and Crick (2007) has been modified to assess bullying behavior (PPRA-TR-R-B 2012). Eight items were used to assess relational and physical bullying, on a 5-point scale from 1 (never or almost never true) to 5 (always or almost always true). These items were revised to address all of the fundamental components of the bullying definition (i.e., power imbalance and repetition), and were averaged across each of the subscales. Assessments of teacher-reported bullying were reliable across all subscales and time points (i.e., Cronbach's $\alpha = .91-.95$).

Teacher-Report of Peer Acceptance. The Preschool Social Behavior Scale- Teacher Form (PSBS-TF; Crick, Casas, & Mosher, 1997) was used to assess peer acceptance. This subscale includes 2 items, on a 5-point scale from 1 (never or almost never true) to 5 (always or almost always true). The two items were summed, and show acceptable reliability across time points (i.e., Cronbach's α for Time 1=.86; Time 2 α =.89).

Teacher-Report of Depression. The Preschool Social Behavior Scale- Teacher Form (PSBS-TF; Crick, Casas, & Mosher, 1997) was used to assess depression. This subscale includes 3 items, on a 5-point scale from 1 (never or almost never true) to 5 (always or almost always true). The three items were summed, and show adequate reliability across time points (i.e., Cronbach's α for Time 1=.69; Time 2 α =.80).

Research Assistant-Report of Anxiety. The Child Behavior Scale (CBS; Ladd & Profilet, 1996) was used to assess anxiety. The *anxious-fearful* subscale contains 4 items, on a 3-point scale from 1 (doesn't apply; "child rarely displays the behavior") to 3 (certainly applies; "child often displays the behavior"). The items were summed, and show adequate reliability across time points (i.e., Cronbach's $\alpha = .87$ for Time 1, α =.68 for Time 2).

Table 1. Correlations among bullying variables as an indicator of stability

	1.	2.	3.	4.	5.	6.	7.	8.
1. Rbul TR T1	X							
2. Pbul TR T1	.81**	X						
3. Rbul RA T1	.49**	.31**	X					
4. Pbul RA T1	.30**	.40**	.44**	X				
5. Rbul TR T2	.58**	.44**	.36**	.24*	X			
6. Pbul TR T2	.58**	.67**	.26**	.31**	.68**	X		
7. Rbul RA T2	.13	.10	.54**	.15	.07	.04	X	
8. Pbul RA T2	.21	.39**	.33**	.55**	.17	.35**	.47**	X

Note. * $p < .05$, ** $p < .01$, T1 = Time 1; T2 = Time 2; TR = Teacher Report; RA = Research Assistant Report; Rbul = Relational Bullying; Pbul = Physical Bullying

Results

Descriptive Statistics/Bivariate Correlations

Descriptive statistics were inspected to assess the existence of bullying with regard to the first objective. A categorical bullying variable was created to examine this question, such that a participant's individual average score of at least 3 or greater across all items was an indication of bullying. Examining frequencies of this variable revealed the existence of the bully role in early childhood, with support across informants (i.e., TR found 6 relational bullies (6.6%) and 6 physical bullies (6.7%) at Time 1, and 13 relational bullies (14.3%) and 7 physical bullies (7.7%) at Time 2 of the 91 participants).

Bivariate correlations were conducted to assess the stability of bullying over time, at Time 1 and Time 2 (see Table 1). Stability correlations revealed that the bully role is moderately stable over a four to five month period across informants.

Hierarchical Regression Models

Age, gender, and forms and functions of aggression were entered in step 1 for all three models. At step 2, teacher reported relational and physical bullying were entered for all models. The first model predicted peer acceptance. Results revealed that the model was significant, [$F(6, 67) = 2.64, p < .05, R^2 = .19$], with gender significantly predicting Time 2 peer acceptance in step 1 (see Table 2). At step 2, relational bullying was a significant negative predictor of peer acceptance at Time 2 [$\Delta F(2, 65) = 3.19, p < .05, \Delta R^2 = .07$] above and beyond age, gender, and forms and functions of aggression, suggesting that children who were relationally bullying others were significantly less likely to be accepted by their peers later in the school year.

In the second and third models, depression and anxiety (respectively) were the dependent variables. Both overall models were non-significant. Thus, neither form of bullying (i.e., physical, relational) was a unique predictor of depression or anxiety at Time 2 according to the SIP model. Therefore, tables of regression models were not presented for ease of communication.

In sum, results from objective one revealed that the bully role does exist in early childhood, and is relatively stable over time. Regarding objective two, regression analyses revealed that bullying in early childhood, specifically, relational bullying, was a unique and negative predictor of peer acceptance, providing support against the social dominance theory. In addition, neither form of bullying was found to be a unique predictor of depression or anxiety within regression models, disconfirming the original exploratory hypothesis of the SIP model; however, taken together, other maladaptive outcomes (i.e., not being accepted by ones peers) do provide support for the social information-processing model.



Table 2. Hierarchical Linear Regressions Predicting Peer Acceptance

Outcome, Step & Predictors	β	p	R^2	ΔR^2
Model 1: Pact TR T2				
1. Age	.07	ns	.19	
Gender	-.27*	<.05		
Pro Ragg TR T1	.19	ns		
Pro Pagg TR T1	.05	ns		
Rea Ragg TR T1	-.28	ns		
Rea Pagg TR T1	-.38	.08 ⁺		
2. Rbul TR T1	-.72*	<.05		.07
Pbul TR T1	.74	ns		

Note. * $p < .05$; ⁺ $p < .10$; T1 = Time 1; T2 = Time 2; TR = Teacher Report; Pact = Peer Acceptance; Pro = Proactive; Rea = Reactive; Ragg = Relational Aggression; Pagg = Physical Aggression; Rbul = Relational Bullying; Pbul = Physical Bullying

Discussion

In sum, it appears that the bully roles exists in early childhood and is relatively stable over time. In addition, relational bullying was found to be a unique and negative predictor of peer acceptance, but was not associated with depression or anxiety. Although these findings disconfirm the social dominance theory, they provide some support for the SIP model. As previously stated, the peer acceptance regression model found that peers did not accept relational bullies, which would be considered a maladaptive outcome. Even though depression and anxiety were not found to be significant maladaptive outcomes of bullying in early childhood, the findings suggest other possible outcomes to consider, such as not being accepted by ones peers, or comparably, peer rejection, a variable different than but highly correlated with not being accepted by ones peers (Crick & Dodge, 1994). This evidence provides some support for the SIP model in predicting maladaptive outcomes as a result of bullying.

This study provides important clinical implications. Early childhood is a period where children are first being exposed to interactions with peers at school, and it is at this time where problems with social interactions can be identified early (Vlachou et al., 2011). The current study, which established the existence of bullying in early childhood and its associations with maladaptive outcomes provides implications for starting intervention as early as possible to identify and potentially minimize the harmful effects of these behaviors in the future.

Future research is needed to further examine various outcome variables associated with bullying and to validate current findings.

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