

The quality of play between fathers and young children differs from that between mothers and young children. Because interaction with fathers is often more emotionally arousing, interaction with fathers may provide children opportunities to practice and develop self-regulation skills. Children's self-regulation skills may be important predictors of children's aggressive behavior with same-age peers. Through secondary analysis of NICHD Study of Early Child Care (NICHD-SECC) data, the current study examines the hypothesis that father-child interaction is linked with aspects of self-regulation - specifically, inhibitory control and impulsivity. Additionally, it is hypothesized that both inhibitory control and impulsivity moderate associations between aspects of father-child interaction and children's aggressive behavior with peers. Because these variables may interact differently for boys and girls, associations were examined separately for each sex.

The NICHD-SECC included 1,364 families recruited in 10 US locations shortly after the child's birth. Data used in the current investigation, collected at the 54-month follow-up, were available for 721 children who were observed interacting with their fathers during a structured laboratory session (350 girls; 90.0% European-American, 4.7% African-American; 3.5% Hispanic).

Qualities of Father-child interaction (only instances in which the child interacted with the father were included in this study) were assessed through laboratory-based parent-child interaction tasks that were rated from videotapes by trained coders using 7-point global rating scales. The Father positive caregiving composite included ratings of supportive presence, respect for

autonomy, hostility (reversed), cognitive stimulation, quality of assistance, and confidence ( $\alpha = .88$ , interrater  $r = .81$ ). Father Harsh Control was assessed through self-reports on the Raising Children Checklist (six items,  $\alpha = .69$ ). Impulsivity was the proportion of incorrect responses obtained through a children's Stroop Test. Inhibitory control was assessed through maternal ratings on 10-items from the inhibitory control scale of the Children's Behavior Questionnaire. Aggression was assessed via caregiver report on Achenbach's Teacher Report Form 2-5y.

No significant associations were obtained between any of the father-child interaction variables or the self-regulation variables and observational ratings of children's verbal or physical aggression for boys or girls. For boys, father positive care was linked with lower impulsivity scores and higher inhibitory control scores. There was an unexpected positive significant association between father positive care and aggression ratings for boys. Father harsh control was significantly associated with boys' impulsivity, but not inhibitory control or aggression (see Table 1).

For girls, higher ratings of father positive care was linked with lower impulsivity scores, higher ratings of inhibitory control, and lower ratings of aggression. Father harsh control was negatively associated with inhibitory control, but was not significantly associated with impulsivity or aggression (see Table 1).

To examine interactions between father-child interaction and children's self-control, a series of regression equations predicting aggression were

computed. Table 2 presents the results of these regressions. For boys, The main effects of father positive care and impulsivity, as well as the interaction terms, were significant. The slope of the relationship between father positive care and aggression varied from  $-.026$  ( $t = -.23$ , *ns*) for low ( $-1$  SD) impulsivity to  $.15$  ( $t = 1.94$ ,  $p = .05$ ) for mean impulsivity to  $.326$  ( $t = 4.21$ ,  $p < .05$ ) for high ( $+1$  SD) impulsivity (Figure 1). Additionally, the main effects of father positive care and inhibitory control, as well as the interaction terms, were significant. The slope of the relationship between father positive care and aggression varied from  $.33$  ( $t = 3.39$ ,  $p < .05$ ) for low ( $-1$  SD) inhibitory control to  $.18$  ( $t = 2.50$ ,  $p < .05$ ) for mean inhibitory control to  $.02$  ( $t = -0.09$ , *ns*) for high ( $+1$  SD) inhibitory control (Figure 1). No significant interaction terms were obtained for father harsh control for boys. For girls, the main effects of positive father care and inhibitory control were significant predictors of aggression, but no significant interaction terms were obtained.

Thus, for both boys and girls, father positive care is associated with lower levels of impulsivity and higher ratings of inhibitory control. For girls, father positive care is associated with lower ratings of aggression. For boys, these findings suggest self-regulation moderates associations between father positive care and aggression; specifically, the association between father positive care and aggression is significant, and positive, for boys who are more impulsive and who are rated as lower in inhibitory control, but is not significant for boys more skilled at self-control. Implications for theory and research will be discussed.

Table 1

*Associations among father-child interaction and self-control and aggression variables.*

	Father Positive Care	Father Harsh Control	Impulsivity	Inhibitory Control
<b>Boys</b>				
Impulsivity	-.19**	.10*	1.0	-.04
Inhibitory Control	.16**	-.06	-.04	1.0
Aggression	.13*	-.08	.15*	-.24**
<b>Girls</b>				
Impulsivity	-.14**	-.05	1.0	-.01
Inhibitory Control	.14**	-.11*	-.01	1.0
Aggression	-.18**	-.01	.07	-.24**

Note: \* =  $p < .05$ , \*\* =  $p < .01$

Table 2

*Predicting aggressive behavior from father-child interaction, self-control, and the interaction between father-child interaction and self-control for boys and girls.*

Variables entered	R <sup>2</sup>	$\beta^a$	p
<b>Boys</b>			
Father Positive Care		.13	.06
Impulsivity		.18**	.01
Interaction Term	.08**	.18**	.01
Father Positive Care		.14**	.02
Inhibitory Control		-.25**	.000
Interaction Term	.09**	-.14*	.03
Father Harsh Control		.17*	.02
Impulsivity		-.06	.41
Interaction Term	.03	-.06	.38
Father Harsh Control		-.08	.20
Inhibitory Control		-.24**	.000
Interaction Term	.07**	.014	.84
<b>Girls</b>			
Father Positive Care		-.21**	.003
Impulsivity		.04	.55
Interaction Term	.05*	.03	.72
Father Positive Care		-.14**	.03
Inhibitory Control		-.21**	.001
Interaction Term	.07**	-.02	.79
Father Harsh Control		-.03	.64
Impulsivity		.10	.17
Interaction Term	.02	.10	.14
Father Harsh Control		-.05	.43
Inhibitory Control		-.25**	.000
Interaction Term	.06*	.04	.52

Note: <sup>a</sup> Standardized betas are reported; \* =  $p < .05$ , \*\* =  $p < .01$

