
Quality of Relationships with After-School Program Staff and Child Developmental Outcomes

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Others have documented linkages between teacher-child (T-C) relationships and children's school adjustment

- **Birch & Ladd (1997)**
 - Higher T-C conflict in K concurrently associated with less school liking and more school avoidance; T-C closeness in K concurrently associated with higher academic achievement and more school liking
 - **Pianta, Steinberg, & Rollins (1995)**
 - Positive T-C relationships in K related to reductions in the likelihood of retention and referrals for at-risk students
 - **Hughes, Cavell, & Jackson (1999)**
 - In a sample of highly aggressive children, positive T-C relationships predicted declines in aggression over a 1-year period
 - **Hamre & Pianta (2001)**
 - Relational negativity in K predicted lower math and reading achievement, fewer positive work habits, and more disciplinary infractions in Grades K-4 controlling for gender, ethnicity, verbal IQ, and prior behavior problems
 - **Birch & Ladd (1998)**
 - T-C conflict in K predicted declines in prosocial behaviors and increases in peer reports of aggression in first grade
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Similar relations have been found in younger children who attend child care

- Howes & Hamilton (1993)
 - Older toddlers who experienced a negative shift in the quality of T-C relationships displayed more aggressive behaviors in child care
 - Younger toddlers who became more secure displayed relative gains in prosocial behaviors
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Several processes have been suggested as contributing to these obtained relations

- **Attachment security** – Children who are securely attached to their teachers may feel freer to explore, may be less preoccupied, and may display greater cognitive flexibility
 - **Motivational factors** – Children who have more positive relationships with their teachers may like school more and be more attentive to their teachers, which may improve academic performance
 - **Social referents** – Children may use teachers' behaviors as a guide or referent for their own positive (or negative) evaluations of classmates and interactions with classmates
 - **Time and effort allocations** – Teachers may expend less time and effort with students with whom they have conflictual or negative relationships
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In this presentation, we extend consideration of adult-child relationships to the related context of after-school programs

Almost 2.5 million children (K-G2) attend after-school programs for 7.5 hr/wk on average (U.S. Department of Education, 2004).

Questions have been raised about the effects of these experiences on academic, social, and behavioral outcomes (see National Research Council, 2002, 2003).

Positive relationships between children and program staff are believed to be important, but there has been little systematic study of effects associated with staff-child relationships

■ **Pierce, Hamm, & Vandell (1999)**

- Staff positivity associated with boys displaying fewer internalizing and externalizing problems at school according to first grade teachers
- Staff negativity associated with poorer reading and math grades in boys

■ **Vandell & Pierce (2001)**

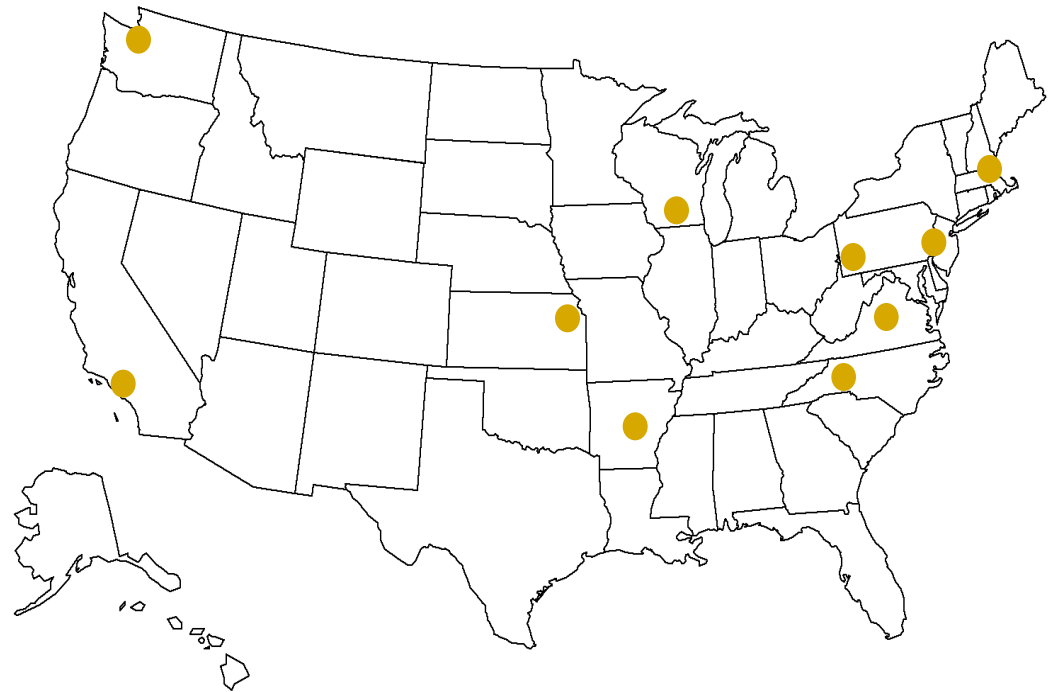
- Positive caregiving by staff predicted higher academic grades and better work habits for boys and girls in Grade 3
 - Supportive relations with staff also predicted less loneliness and depressive symptoms in Grade 3
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**The current study uses data from the NICHD
Study of Early Child Care to extend the study
of staff-child relationships**

Sampling Plan and Recruitment

- 10 sites selected by competitive review of proposals (scientific merit), not on basis of demography.
- All births in 24 study hospitals defined the *catchment*, which is the “reference population of the study.”
- Sampling designed to produce unbiased estimates of effects for the catchment while assuring adequate representation of major socio-demographic niches.

Location of Data Collection Sites



Sample Demographics

	1 Month N=1364	Grade 1 N=137
Child gender		
% boys	51.7	48.9
Child ethnicity		
% minority	23.6	20.4
Income-to-needs		
% poor or near poor	37.9	15.9
Maternal education		
<i>M</i> years	14.2	15.2

Measures of the Family & School Contexts

- **Family context**

- Demographic factors: Family structure, maternal education, child gender
- Observed mother-child interaction in Grade 1

- **School context (Grade 1)**

- Observed instructional quality in the classroom
 - Observed emotional quality in the classroom
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Measures of the After-School Context

■ **Mother reports**

- After-school hrs/wk

■ **Program staff reports**

- Childrearing beliefs (Schaefer & Edgerton, 1985)
 - 5-point Likert scales
 - Authoritarian beliefs (30 items; alpha = .90)
 - Teacher-Child Relationship Scale (Pianta, 1994)
 - 5-point Likert scales
 - Closeness (8 items; alpha = .84)
 - Conflict (7 items; alpha = .85)
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Child Developmental Outcomes in Grade 1

- **Externalizing behavior problems**
 - ❑ Mother: Child Behavior Checklist (33 items, alpha = .89)
 - ❑ Teacher: Teacher's Report Form (34 items, alpha = .94)
- **Social skills: Social Skills Rating System**
 - ❑ Mother: 38 items, alpha = .88
 - ❑ Teacher: 30 items, alpha = .93
- **Academic achievement: Woodcock-Johnson Revised**
 - ❑ Letter-Word Identification
 - ❑ Applied Problems
- **Academic performance: Mock Report Card**
 - ❑ Academic grades (6 items, alpha = .93)
 - ❑ Work habits (6 items, alpha = .95)

Analytic Plan: Hierarchical Multiple Regressions

Block 1

- Boys (1=yes)
- Single parent (1=yes)
- Maternal education
- Mother positive caregiving
- Classroom instructional quality
- Classroom emotional quality
- Prior functioning at 54 months

Block 2

- Staff-child conflict
 - Staff-child closeness
 - Staff childrearing beliefs
 - Hours in after-school care
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RESULTS

	Block 1	Block 2	Staff-child conflict	Staff-child closeness	Childrearing beliefs	After-school hours
	Adj R ²	ΔR ²	beta	beta	beta	beta
Externalizing (M)	.575***	.032*	.179*	.035	.007	.065
Externalizing (T)	.333***	.092**	.357*	.049	.025	.028
Social skills (M)	.351***	.033	-.088	.102	.130	-.026
Social skills (T)	.207***	.045	-.241*	-.067	-.053	-.003
WJ letter-word	.254***	.063*	-.162⁺	.167*	-.034	-.099
WJ applied problems	.390***	.049*	-.148⁺	.092	-.141⁺	-.071
Academic grades	.190***	.047	-.108	.180*	-.002	-.016
Work habits	.153***	.024	-.132	-.010	-.106	.052

Effect Sizes Associated with Staff-Child Conflict

	<i>d</i>	<i>r</i>
Externalizing (M)	.91	.41
Externalizing (T)	1.35	.56
Social skills (T)	-.93	-.42
WJ letter word	-.57	-.28
WJ applied problems	-.44	-.21

Effect Sizes Associated with Staff-Child Closeness

	<i>d</i>	<i>r</i>
WJ letter-word	.54	.26
Academic grades	.66	.31

CONCLUSIONS

- The quality of children's relationships with after-school program staff is associated changes in academic, social, and behavioral functioning.
 - Staff-child **closeness** predicted relative **gains in reading achievement and academic grades**. These effects are medium in size, according to Cohen's rubric. The findings are consistent with other research that has found teacher-child closeness to be associated with gains in academic performance.
 - Staff-child **conflict** predicted **increases in externalizing problems** according to teachers and mothers. These effects were medium to large, according to Cohen's rubric. These findings are consistent with other research that has found teacher-child conflict to be linked to increased aggression.
 - Staff-child **conflict** also predicted **decreases in reading and math achievement**. This medium-size effect underscores the importance of social relationships for academic outcomes as well as social outcomes.
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Limitations

- Relatively small sample
 - Correlational design
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Next Steps

- Longer term follow-up of the relations between staff-child relationships and child functioning
 - Identification of strategies to improve staff-child relationships
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