

EXPERIENCES IN AFTER-SCHOOL PROGRAMS  
AND CHILDREN'S ADJUSTMENT AT SCHOOL AND AT HOME

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## ABSTRACT

The after-school program experiences of 150 children were examined as predictors of children's adjustment in their first-grade classrooms and at home. Child and family selection factors (child sex, family SES, firm/responsive parenting practices) were included as controls. More highly structured after-school programs were associated with children having fewer behavior problems, better grades, and better work habits in their grade school classrooms. Positive emotional climate in the programs also was associated with children having fewer behavior problems at school. Negative interaction with peers at the after-school programs was associated with more behavior problems and poorer social skills at school. Program experiences were not associated with adjustment at home.

## BACKGROUND

Needs for nonparental child care are not restricted to families with infants and preschoolers. Because of parental work schedules, many families must make care arrangements for times when their school-age children are not in school. One such arrangement is the school-age child care (SACC) program. Much of the initial research on SACC programs employed a "social address" approach in which children in programs were compared with children in other after-school arrangements (e.g., Howes, Olenick, & Der-Kiureghian, 1987; Mayesky, 1980; Sheley, 1984; Vandell & Corasaniti, 1988). Many of these early studies did not consider the quality of the experiences that children had in the programs, or family selection factors that were confounded with program quality. The current study expanded the study of after-school programs by:

- observing the quality of children's experiences in programs
- identifying family and child characteristics confounded with program selection and child adjustment
- relating the quality of after-school experiences to children's adjustment at school and at home, controlling for selection factors

### Hypotheses

- A positive emotional climate in the programs is expected to predict fewer child behavior problems at school and at home, and better academic performance.
- More frequent positive/neutral interactions with peers at the programs is expected to contribute positively to peer relationships at school, whereas negative experiences with peers at the programs are expected to predict problematic peer relationships at school.
- The structure of the programs is expected to be associated with children's adjustment;

we do not predict the direction of the association a priori.

## METHOD

### Participants

Participants were 150 first graders. Fifty-one percent were male. Mean age at the beginning of the school year was 6.5 years ( $SD = 0.3$ ). One quarter of the children (24.7%) lived in one-parent households. Most (87.3%) of the participants were White; other children were Black (10.0%), Hispanic (1.3%), Asian or Pacific Islander (0.7%), and Other (0.7%). Parents were generally well educated, with 57% of the mothers and 68% of the fathers having a bachelor's or graduate degree; an additional 32% of the mothers and 23% of the fathers had an associate's degree or some college.

The children attended 38 after-school programs that varied in location (elementary school, day care center, community center) and auspice (nonprofit, proprietary). The number of children attending any single program ranged from one to eight ( $M = 3.95$ ,  $SD = 2.19$ ). The mean number of days each week that children attended the programs was 4.62 ( $SD = 0.71$ ); 76% attended 5 days per week.

Measures of the After-School Programs (see Table 1 for descriptive statistics)

Children's interactions with others. Three 20-minute partial- interval time samples (20-second observe, 10-second record periods) per child were obtained over a 3-month period to measure frequency of four types of interactions: (1) positive/neutral interactions with peers, (2) positive/neutral interactions with program staff, (3) negative interactions with peers, and (4) negative interactions with program staff

Ratings of program emotional climate. Emotional climate was rated on three occasions using 4-point scales of (1) positive climate and (2) negative climate. These ratings were associated,  $r = -.52$  ( $p \leq .0001$ ). A single program emotional climate score was created by

averaging the mean positive climate and mean negative climate scores, after reverse scoring negative climate.

Ratings of program curriculum. Program curriculum was rated on three occasions using 4-point scales of (1) programming structure and (2) available activities. These ratings were associated,  $r = .42$  ( $p \leq .0001$ ). A single program structure score was created by averaging the ratings.

#### Measure of Family Characteristics

Firm/responsive parenting practices: Revision of the Raising Children Checklist (mother report; Posner & Vandell, 1994).

#### Measures of Child Adjustment

Behavior problems: Child Behavior Checklist/4-18 (mother report; Achenbach, 1991a) and Teacher's Report Form (classroom teacher report; Achenbach, 1991b)

Academic grades, work habits: Mock Report Card (classroom teacher report)

Social skills with peers: One subscale of Teacher Checklist of Peer Relations (classroom teacher report; Dodge & Coie, 1987)

## RESULTS

### Relations between Observed Program Experiences

Table 2 shows correlations among the children's program experiences. These modest correlations suggest that different aspects of program experiences were being assessed. None were large enough to suggest collinearity problems in the multiple regressions reported below.

- Programs rated as more highly structured offered less positive emotional climates.
- A more positive emotional climate was associated with children having more frequent positive/neutral interactions with staff.
- Children who had more negative interactions with staff also were more likely to have

- negative interactions with peers.
- More frequent positive/neutral interactions with staff were associated with children having fewer positive/neutral interactions with peers.

### Child and Family Characteristics as Selection Factors

Three criteria were used to determine if a family or child characteristic was used as a selection control in substantive analyses: (a) the characteristic was associated with quality of after-school program experiences, (b) it was associated with child adjustment, and (c) it was not highly associated with other selection factors. Based on preliminary analyses, child sex, SES (based on family income, parental education, and parental occupation codes), and firm/responsive parenting practices were chosen as selection factors.

### Program Experiences as Predictors of Children's Adjustment

Associations between after-school program experiences and children's adjustment were examined in simultaneous multiple regression analyses. Included as predictors were family/child selection factors (child sex, SES, firm/responsive parenting practices) and observed program experiences (structured curriculum, positive emotional climate, positive/neutral interactions with peers, negative interactions with peers, positive/neutral interactions with staff, and negative interactions with staff).

Adjustment at school. As shown on Table 3, first-grade children's adjustment at school was predicted by the model.

- More highly structured after-school programs predicted:
  - fewer behavior problems
  - better academic grades
  - better work habits
- A positive emotional climate in the program predicted:

- fewer behavior problems
- Children who had more frequent negative interactions with peers in the programs were reported by classroom teachers to have:
  - more behavior problems
  - poorer peer social skills
- More frequent positive/neutral interactions with peers at the programs were associated with:
  - poorer work habits

Adjustment at home. Mothers' reports of children's behavior problems were not associated with experiences in the after-school programs (see Table 3).

#### Family Characteristics and Child Adjustment

Although not a primary focus of the current study, the regressions presented on Table 3 also show that family characteristics were associated with child adjustment at school and at home.

- Firm/responsive parenting practices predicted children having:
  - better academic grades
  - better work habits at school
  - better social skills at school
  - fewer behavior problems at school and at home
- Higher family socioeconomic status was associated with:
  - better academic grades

#### Interactions between Program and Family Experiences as Predictors of Child Adjustment

Three additional sets of regressions were conducted to examine interactions between after-school experiences and family characteristics (structured curriculum X family SES;

structured curriculum X parental firm/responsiveness; positive emotional climate X parental firm/responsiveness). None of these interaction terms added significantly to the prediction of child adjustment.

### CONCLUSIONS

- First-grade children's experiences in after-school programs were associated with their functioning at school, even after controlling for family and child selection factors. Several features of children's program experiences were relevant to child adjustment, including the emotional climate in the programs, program curriculum, and the frequency of positive/neutral and negative interactions with peers in the programs. Better child adjustment at school was associated with a positive emotional climate in the programs, structured programming, and fewer positive/neutral or negative interactions with peers in the programs.
- Quality of experiences in the programs was not related to maternal report of behavior problems at home.
- Experiences within the family also were associated with child adjustment at school. Children whose mothers reported firm/responsive parenting practices exhibited better adjustment at school.

Table 1  
Means, Standard Deviations, and Ranges of Predictor and Outcome Variables

	<u>M (SD)</u>	Possible range	Attained range
Children's interactions			
Positive/neutral with peers	25.3 (7.7)	0-40	7.0-38.7
Negative with peers	0.4 (0.8)	0-40	0-4.5
Positive/neutral with staff	7.0 (4.8)	0-40	0.3-21.3
Negative with staff	0.1 (0.4)	0-40	0-4.7
Program ratings			
Positive emotional climate	3.2 (0.3)	1-4	2.1-3.8
Program structure	2.2 (0.5)	1-4	1.2-3.2
Maternal report			
Firm/responsive parenting	3.4 (0.3)	1-4	2.5-4.0
Child behavior problems	0.18 (0.13)	0-2	0-0.60
Teacher report			
Child behavior problems	0.16 (0.15)	0-2	0-0.78
Academic grades	3.5 (0.8)	1-5	1.5-5.0
Work habits	3.5 (1.0)	1-5	1.2-5.0
Social skills with peers	3.4 (0.9)	1-5	1.1-5.0

Table 2

Intercorrelations among Observed Program Experiences

	1	2	3	4	5
1. Structured curriculum	-				
2. Positive emotional climate	-.36 <sup>***</sup>	-			
3. Positive/neutral interactions with peers	-.01	-.04	-		
4. Negative interactions with peers	.02	.12	.05	-	
5. Positive/neutral interactions with staff	.03	.23 <sup>**</sup>	-.30 <sup>***</sup>	-.09	-
6. Negative interactions with staff	.06	-.06	.02	.19 <sup>*</sup>	.12

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 3

Multiple Regressions Predicting Child Adjustment by Observed Program Experiences

	Child adjustment outcomes				
	Mother report	Teacher report			
	Behavior problems	Behavior problems	Academic grades	Work habits	Social skills
Adjusted R <sup>2</sup>	.16***	.16***	.13***	.18***	.13***
Predictors	Standardized beta coefficients				
Sex <sup>a</sup>	-.05	.15	-.15	-.20*	-.08
SES	-.07	-.04	.30**	.09	.03
Firm parenting	-.40***	-.21*	.19*	.29***	.30***
Structured curriculum	.07	-.20*	.20*	.19*	.07
Positive emotional climate	.14	-.20*	.05	.07	.16
Interactions w/peers					
Positive/neutral	.03	.00	.00	-.16*	.05
Negative	.07	.26**	.02	.03	-.17*
Interactions w/staff					
Positive/neutral	.06	.10	.02	-.10	-.13
Negative	-.14	.00	-.07	-.08	.00

<sup>a</sup>Dummy coded as 0 = female, 1 = male.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

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