Developmental Outcomes Associated with the After-School Contexts of Low-Income Children and Youth

Deborah Lowe Vandell
Elizabeth R. Reisner
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Our Collaborators

University of Wisconsin

Kim Pierce, B. Bradford Brown, Dale Lee, Dan Bolt

Policy Studies Associates

Ellen Pechman

Theoretical Framework

- Developmental contextualism
- Developmental processes that promote positive development – supportive relations with adults and peers; engagement; opportunities for mastery
- Stage-environment fit

Variable Centered vs Person Centered Approaches to Conceptualizing After-School Contexts

- Much after-school research has taken a variable-centered approach to examine unique effects associated with particular experiences: programs, specific extracurricular activities, unsupervised time

- Others have framed the problem differently by looking at the effects of different *sets* or *clusters* of experiences on child developmental outcomes

The Current Study

- Asks whether different after-school niches (clusters), including promising after-school programs and organized activities are associated with academic, social, psychological, and behavioral outcomes at the end of the academic year, controlling for performance earlier in the year and other child and family factors

- Investigates both elementary school children and middle school youth, which has not typically been done

Sample

- Recruited 1796 3rd & 4th grade children from 19 elementary schools
- Recruited 1118 6th & 7th grade youth from 16 middle schools

- 8 states and 14 communities
  - Los Angeles, Oakland, San Diego, Sam Ysidro, & Seaside CA; Aurora & Denver CO; New York, NY; Pawtucket & Central Falls RI; Bridgeport CT; Baldwin MI; Missoula MT; Salem OR

Sample Characteristics

	Elementary	Middle School
	N = 1796	N = 1118
% male	47	47
% Free or reduced lunch	89	76
% White	12	31
% Black	8	13
% Latino	77	49
% Other	3	7

Overview of Procedures

- After-School Measures
- Family Characteristics
- Measures of Child and Youth Functioning Obtained at Baseline (fall) and Follow-up (late spring)

After-School Measures

- Observations to assess the quality of the after-school programs
  - 3 2-day site visits
- Daily attendance records for each participant
- Child/youth reports of involvement in other after-school activities collected in the fall and spring
  - organized sports, school clubs, lessons
  - home alone, caring for younger siblings, hanging out with peers

Family Characteristics

- Obtained from parents in the fall at baseline
  - Household structure (1 parent vs 2 parent)
  - Family income
  - Maternal education
  - Maternal employment status

Child and Youth Functioning

- Teacher Reports – collected in the fall and late spring
  - Work habits – 10 items, alpha = .98
  - Task persistence – 8 items, alpha = .93
  - Academic performance – 5 items, alpha = .95
  - Social skills – 7 items, alpha = .96
  - Prosocial with peers – 8 items, alpha = .93
  - Aggressive with peers – 9 items, alpha = .93
- Child and Youth Reports – collected in the fall and late spring
  - Work habits – 6 items, alpha = .75
  - Self efficacy (MS only) – 7 items, alpha = .65
  - Misconduct – 11 items, alpha = .83
  - Substance use (MS only) – 4 items, alpha = .80

Analytic Plan

- Cluster analyses were conducted to identify meaningful sets or combinations of after-school experiences

- 2-level random intercept HLM analyses were conducted to assess child/youth performance at the end of the school with respect to school factors (level 2) and individual factors (level 1) including prior performance and cluster membership

Elementary School Clusters

	Program Plus Activities N = 278	Program N = 580	Low Supervision N = 282	Supervised at home N = 601
% program	95%	100%	54%	0%
Program attendance	3.3	2.8	1.4	0,0
Sports	2.1	1.5	2.4	1.5
School activities	2.9	1.1	1.6	1.2
Lessons	2.9	1.9	2.5	1.6
Home alone	1.2	1.3	2.5	1.2
Sib care	1.2	1.1	2.3	1.2
Hanging out w peers	1.4	1.3	2.6	1.2

Middle School Clusters

	Program Plus Activities N = 195	Program N = 312	Low Supervision N = 162	Supervised at home N = 409
% program	77%	100%	42%	0%
Program attendance	1.7	2.4	0.7	0.0
Sports	2.5	1.7	2.1	1.5
School activities	2.9	1.4	1.7	1.3
Lessons	3.0	1.7	2.1	1.5
Home alone	1.8	1.5	3.1	1.6
Sib care	1.3	1.2	3.0	1.2
Hanging out w peers	1.7	1.6	2.9	1.7

Two-Level HLM Analyses

- Multiple imputation used to address missingness
- Students (level 1) nested within schools (level 2)
- Fixed effect covariates:
  - Child gender; child ethnicity (White, Black, Latino, Other = reference); 2-parent household; mother full time employed; maternal education, family income
  - Child/youth functioning at baseline
- Key contrasts:
  - *Program Plus Activities* Cluster vs *Low Supervision* Cluster
  - *Program* vs *Low Supervision* Cluster
  - *Supervised at home* vs *Low Supervision* Cluster

Findings: Elementary School Sample

- *Program cluster* vs *Low Supervision cluster*
  - Teacher reports
    - Work habits (*B* = .13 ; effect size = .17)
    - Task persistence (*B* = .12 ; effect size = .23)
    - Academic performance (*B* = .16; effect size = .23)
    - Social skills (*B* = .12; effect size = .17)
    - Prosocial behaviors (*B* = .06; effect size = .17)
    - Aggressive behaviors (*B* = -.06; effect size = .15)
  - Child self-reports
    - Work habits (*B* = .08; effect size = .17)
    - Misconduct (*B* = -.29; effect size = .59)

Findings: Elementary Sample continued

- *Program Plus Activities* cluster vs *Low Supervision* cluster
  - Teacher reports
    - No significant effects
  - Child report
    - Work habits (*B* = .19; effect size = .36)
    - Misconduct (*B* = -.22; effect size = .45)

Findings: Elementary Sample continued

- *Supervised at home* vs *Low Supervision*
  - Teacher reports
    - Work habits (*B* = .12; effect size = .16)
    - Task persistence (*B* = .10; effect size = .19)
    - Academic performance (*B* = .13; effect size = .20)
    - Social skills (*B* = .16; effect size = .22)
  - Child report
    - Work habits (*B* = .10; effect size = .19)
    - Misconduct (*B* = -.25; effect size = .50)

Findings: Middle School Sample

- *Program* vs *Low Supervision*
  - Teacher Reports
    - No significant differences
  - Youth Self-Reports
    - Misconduct (*B* = -.15, effect size =.32)
    - Substance use (*B* = -.09, effect size = .32)

Findings: Middle School Sample

- *Programs Plus Activities* vs *Low Supervision Clusters*
  - Teacher Reports
    - Work habits (*B* = .17, effect size = .23)
  - Youth Self Reports
    - Misconduct (*B* = -.15, effect size = .31)
    - Substance use (*B* = -.11, effect size = .37)

Findings: Middle School Sample

- *Supervised at Home* vs *Low Supervision*
  - Teacher Reports
    - Academic performance (*B* = .14, effect size = .19)
  - Youth Self Reports
    - Misconduct (*B* = -.16, effect size = .34)
    - Substance use (*B* = -.11, effect size = .38)

Conclusions

- School-aged Children
  - Attending *high quality programs* was associated with a number of positive developmental outcomes including teacher reports of work habits, task persistence, academic performance
  - Attending *programs plus activities* was linked to child reports of better work habits and less misconduct, but not to teacher reports
  - Being supervised at home after school also was linked to positive developmental outcomes, but this option is not realistic for many families in which parents need to be in the workforce.

Conclusions

- Middle School Youth
  - Attending a high quality after-school program (alone or in combination with other organized activities) was associated with less self-reported misconduct and substance use.
  - Attending a high quality after-school program in combination with other organized activities was related to teacher reports of work habits.

Unresolved Issues

- More pervasive programs effects detected for children than for youth
  - Because the programs are a better “fit” for children??
  - Because children attend more regularly??
  - Because the elementary school teachers (who are responsible for the children for most of the school day) are more knowledgeable and provided more valid ratings??
  - Because it is more difficult for after-school programs and activities to shift developmental trajectories in older youth than in children??
  - Because more time is needed to detect developmental changes in the program youth??

Implications

- Need to consider what are “reasonable” and “realistic” goals for after-school programs