

Vandell, D. L., & Pierce, K. M. (2001, April). Experiences in after-school programs and child well-being. In J. L. Mahoney (Chair), *Protective aspects of after-school activities: Processes and mechanisms*. Symposium conducted at the biennial meeting of the Society for Research in Child Development, Minneapolis, MN.

Experiences in After-School Programs and Children's Well-Being

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OVERHEAD 1: INTRODUCTION

Today I report results from a longitudinal study of after-school programs conducted with my colleague Kim Pierce.

OVERHEAD 2

Interest in after-school programs for school-aged children is at an all-time high. Several factors have contributed to this interest: among them, the large proportion of families in which mothers are employed and who seek supervision for their children while parents are at work, evidence that crimes involving juveniles both as perpetrators and as victims peak during the after-school hours, and reports that after-school programs can boost academic achievement. It is within this general climate that the 1998 Conference of Mayors' National Summit listed expanded after-school programs as one of its top five recommendations. The Chair of the 1999 National Governors Association, Delaware Governor Carper, placed after-school programs as one of his top three priorities for the NGA. Funding for programs also is at an all-time high: Federal funds for the 21st Century Community Learning Centers are \$846 million in fiscal year 2001, up from \$453 million in fiscal year 2000.

Some (but not all) of the existing research indicates that this emphasis on after-school programs is well placed. For example, in some studies, children who attend after-school programs have shown better reading and math achievement and more positive peer relationships

than comparison children. Other research, however, has painted a less rosy picture. Some investigators have failed to find differences in the performance of children who attend programs and those who do not and still other researchers have found program children to perform more poorly than non-program children.

OVERHEAD 3: LIMITATIONS OF PREVIOUS RESEARCH

This contradictory pattern of findings is reminiscent of initial research in the early child care area. Many of the same methodological limitations that plagued that early research (Belsky & Steinberg, 1978) are still common in after-school studies. Much of the research on after-school programs has not controlled for selection factors. A second limitation is that programs are often assumed to be uniform in quality. Anecdotal evidence and ethnographic accounts suggest substantial variations in program staff, children's interactions with peers, and structuring of activities. These differences may result in some programs contributing positively to children's development and other programs having either no impact or negative impacts. The purpose of the current study is to examine variations in children's program experiences and to ascertain if these variations are associated with children's academic performance, social competence, and emotional well-being.

OVERHEAD 4: QUALITY COMPONENTS

What might be the features of high quality after-school programs? Drawing on developmental theory, Eccles (1999) has argued that high-quality after-school programs should provide opportunities for children (a) to master and demonstrate new skills, (b) to form good social relationships with peers, (c) to form good social relationships with adults outside of the family, and (d) to make independent decisions and control one's own behavior. Similar recommendations have been generated by professional organizations that are associated with after-school programs. For example, the National School-Age Care Alliance (1998) has proposed

that a set of 36 standards be used in the accreditation of school-age programs. Similar to Eccles' theory-based recommendations, these standards have identified interactions with staff, presence of age-appropriate activities, and opportunities to exercise choice as key elements in high-quality after-school programs. Unfortunately, there are few systematic tests of the validity of these quality components.

OVERHEAD 5: OUR PRIOR WORK

In a series of studies conducted with my colleagues Rob Rosenthal, Jill Posner, and Kim Pierce, I have sought to systematically test the effects of variations in program quality on children's developmental outcomes. In these studies, we have relations between observations of staff-child interactions and children's reports of program experience and between program activities and child perceptions. In programs in which negative staff-child interactions were more frequent, children reported receiving less emotional support from staff. In programs that offered a greater variety of activities, children reported being happier in the program.

In other analyses involving the same sample of children as those reported in today's presentation, Kim Pierce, Jill Hamm, and I (1999) found staff-child relationships, interactions with program peers, and flexible program structures to be significant predictors of children's adjustment and school performance when children were in first grade, even after controlling for selection factors (family SES and firm-responsive parenting practices). When program staff were observed to be more positive during interactions, boys displayed fewer internalizing and externalizing behavior problems in their first-grade classrooms. When program staff were observed to be more negative, boys performed more poorly in reading and math in first grade. More frequent negative interactions with peers at the after-school program predicted more internalizing, more externalizing, and poorer social skills at school. Finally, children who attended programs that offered a more flexible curriculum had better social skills at school.

OVERHEAD 6: RESEARCH AIMS

In today's presentation, we seek to extend and expand this previous work. The work that we describe has several notable features:

- Program experiences are assessed in terms of the quality of staff-child interactions and peer interactions, their provisions for child autonomy, and the availability of age-appropriate activities. These different program experiences are approached from three perspectives: those of trained observers, children, and parents.
- Family and child selection factors are controlled. Two family characteristics previously found to be related to use of after-school programs -- family income and firm-responsive parenting practices -- are used as statistical controls. We also control statistically for child gender and the child's adjustment prior to the after-school program experience.
- Relations between program quality and child developmental outcomes are examined over a 4-year period beginning when the children were in first grade and continuing through fourth grade.
- Because previous research suggests that after-school programs may impact boys and girls differently, we tested for interactions between child gender and program quality.

OVERHEAD 7: SAMPLE RECRUITMENT

The initial sampling frame for the current study was all licensed after-school programs and community centers ($N = 92$) in and around a small midwestern city. From this initial pool, 48 programs that met three criteria were asked to participate in a study of after-school programs: the programs enrolled a minimum of 3 first graders, they included minority-race children, and roughly equal numbers of non-profit and profit programs were represented. 275 parents of first-grade children (57% response rate) who were enrolled in 38 of these programs responded to a

preliminary letter describing the study.

From this pool, 175 children who attended their programs at least 3 days per week were selected using a conditional random sampling strategy so that about half were boys. All minority-race children and all children living in single-parent homes were selected to ensure adequate representation of these demographic characteristics in the final sample. Other children were selected randomly. When contacted by telephone, families of 150 children agreed to participate in the study.

OVERHEAD 8: SAMPLE CHARACTERISTICS

Demographic characteristics of the 150 families in the recruited sample are shown on the slide. Also shown are the characteristics of the 135 families who remained in the study through grade 4.

OVERHEAD 9: PROGRAM ATTENDANCE

During first grade, all of the children were enrolled in after-school programs, which they typically attended 5 days a week. By fourth grade, 44% of the children were enrolled in the programs, which they attended an average of 3.70 days per week. Only 35% of the children attended after-school programs for 5 days each week by fourth grade.

OVERHEAD 10: MEASURES OF AFTER-SCHOOL PROGRAM QUALITY

The primary focus of today's presentation is on the quality of children's experiences in these after-school programs and the effects of program quality on academic performance, social competencies, and emotional well-being. Four perspectives on the quality of the programs were considered: observer ratings on the SACERS, observer qualitative ratings of children's program experiences, children's reports of their experiences, and mothers' reports about the programs. Programs were observed three times a year during first and third grades and four times a year during second and fourth grades to assess the quality of children's experiences at the programs.

Children were interviewed about the programs twice each year. Mothers completed a questionnaire about the programs once each year.

OVERHEAD 11: DESCRIPTION OF THE SACERS

The SACERS (Harms, Jacobs, & White, 1996) is a 43-item observational and interview instrument that assesses six aspects of after-school programs. The SACERS is not strictly a measure of children's actual experiences in programs. It includes program policies, staff professional development, and the relationship of the program to the host (for example, between a community-based program and the school in which it rents program space).

OVERHEAD 12: SACERS DESCRIPTION PART 2

Each of the items on the SACERS is rated on a 7-point scale: 1 = inadequate; 3 = minimal; 5 = good; and 7 = excellent. A total scale score is computed by averaging the item scores. In the current study, we averaged the total scale scores across all observations during each school year to create annual SACERS scores for each program.

OVERHEAD 13: SACERS QUALITY

The majority of the programs we observed were rated as providing minimal-quality care. Inspection of the individual program scores revealed that in Grade 2, of 46 programs that were assessed, 2 (4%) provided care that was judged to be inadequate and 2 (4%) provided care that was judged to be good according to the SACERS scoring criteria. The remainder (92%) was in the minimal-quality range. In Grade 3, of 37 programs observed, 5% of the programs were judged to be in the good to excellent range; the remainder scored in the minimal-quality range of the SACERS. In fourth grade, 94% of the programs were in the minimal-quality range on the SACERS, and only 6% of the programs were judged to be good to excellent.

OVERHEAD 14: DESCRIPTION OF THE QUALITATIVE RATINGS

A second perspective was provided by observers' ratings of children's experiences at the

programs. During each program observation, 4-point ratings were used to describe seven aspects of program experience: positive regard, negative regard, positive behavior management, negative behavior management, flexible programming, availability of age-appropriate activities, and chaotic environment. The flexibility and activities ratings were modifications of ratings used by Rosenthal and Vandell (1996). The positive regard, negative regard, and chaos ratings were modifications of ratings used in the Observational Record of the Caregiving Environment by the NICHD Study of Early Child Care (NICHD Early Child Care Research Network, 1994).

OVERHEAD 15: SCORES ON THE QUALITATIVE RATINGS

Mean annual ratings on each qualitative scale were created by averaging the individual ratings across all the observations conducted each year. Then, annual composite scores representing overall observed quality were created by averaging the seven annual ratings after reversing the chaos, negative regard, and negative behavior management scores. Cronbach's coefficient alpha for the overall quality score was good.

OVERHEAD 16: CHILD REPORTS OF PROGRAM EXPERIENCES

A third perspective was provided by children's reports of their experiences. During the Fall and Spring of each school year, children completed the After-School Environment Scale (ASES; Rosenthal & Vandell, 1996). The ASES includes three subscales—emotional support from staff, provisions for autonomy and privacy, and peer affiliation or positive peer relations—as well as an overall psychosocial climate score.

OVERHEAD 17: ASES

We administered the emotional support subscale (18 items) of the ASES when the children were in first and second grades; we used the full measure in third and fourth grades. The Fall and Spring measurements each year were averaged to create a single annual score. Reliability of the measure was excellent.

OVERHEAD 18: PARENT REPORTS OF THE AFTER-SCHOOL PROGRAMS

A fourth perspective of the after-school programs was provided by mothers when children were in second, third, and fourth grades. Mothers completed a 23-item questionnaire regarding the physical setting, program activities, program staff, program fees and operation, and whether the child enjoyed the program. The questionnaire was adapted from the ASQ system for self-evaluation by after-school programs (O'Connor, 1991). A total scale score was computed as the mean of the items.

OVERHEAD 19: CUMULATIVE PROGRAM EXPERIENCES

Our focus was on the effects of children's *cumulative* program experiences on child well-being and performance for children who were enrolled in programs. Cumulative scores were created by computing the mean value for all years the children were enrolled in a program. For example, the cumulative observed quality score for third grade was the mean of the observer ratings obtained in grades 1, 2, and 3. The cumulative child perception score for fourth grade was the mean of the child reports obtained in all four grades. In these analyses, effects of cumulative program quality were tested only for those years children still attended a program.

OVERHEAD 20: MEASURES OF CHILD FUNCTIONING

The cumulative models were used to predict children's performance and well-being in seven areas: academic grades, externalizing problems reported by teachers and mothers, internalizing problems reported by teachers and mothers, loneliness as reported by children, and depressive symptoms reported by children. Separate models predicted child functioning in second grade, then in third grade, and finally in fourth grade.

OVERHEAD 21: ANALYTIC PLAN

A major proposition guiding today's presentation is that variations in children's experiences in after-school programs predict children's developmental outcomes. To test this

hypothesis, we conducted a series of hierarchical regressions. In the first model, family and child characteristics were entered as controls for selection bias. Included in the first model were cumulative measures of family income and parental report of firm-responsive parenting practices, and child gender and child prior adjustment. The measure of prior adjustment in each case was the child's performance on that outcome when the child was in first grade. In the second model, cumulative measures of program experience – observed quality **or** child perception of the program **or** maternal perception of the program – was used to predict child performance in second grade, then in third grade, and then finally in fourth grade. In the third model, the interaction between child gender and program experiences was tested.

OVERHEAD 22: ACADEMIC GRADES

Children who attended programs with higher cumulative quality (as measured by the qualitative ratings composite) obtained better academic marks than did children who attended programs that were lower in observed quality, even after controlling for child gender, family income, firm-responsive parenting, and first-grade academic performance. This relation between observed program experiences and children's academic performance was obtained for analyses conducted in second grade (with the cumulative first- and second-grade observed quality score) and third grade (in which programs had been observed in first, second, and third grades). In fourth grade, we found a near-significant effect for girls.

OVERHEAD 23: WORK HABITS

For teacher reports of children's work habits at school, after controlling for family and child selection factors and first-grade work habits ratings, girls who attended programs with higher cumulative quality ratings fared better in third and fourth grades than girls who attended lower quality programs. There were no effects for boys in any of the grades.

OVERHEAD 24: SOCIAL SKILLS

As was the case for work habits, girls who attended after-school programs with higher cumulative quality ratings were rated by their classroom teachers as having better social skills in third and fourth grades than girls who attended programs with lower cumulative ratings, even after controlling for child and family characteristics and first-grade social skills ratings. There was no effect for boys in any of the grades.

OVERHEAD 25: LONELINESS

Experiences in after-school programs also were related to measures of child well-being. In particular, children who reported having more positive experiences in their after-school programs appeared to be less lonely than children who had less positive experiences in the programs, even after controlling for family characteristics, child gender, and the child's feelings of loneliness in first grade. Positive child reports of program experiences predicted less loneliness in all three grades, that is, when children were in second, third, and fourth grades. The effect was stronger for girls than for boys in third grade.

When children were in third grade and fourth grade, we also examined three specific aspects of program experience—emotional support provided by staff, positive relations with peers, and opportunities for privacy and autonomy—to determine if they were differentially related to child well-being. In third grade, the block of three variables added a significant increment to the prediction of child loneliness. Even after controlling for prior loneliness, family characteristics, and child gender, children were less likely to report being lonely when they attended programs characterized by more positive relations with peers. In fourth grade, all three aspects of program experience were related to loneliness. Fourth graders reported feeling less lonely when they attended programs in which after-school staff provided more emotional support and relations with program peers were more positive, and the children had more autonomy.

OVERHEAD 26: DEPRESSION

Children's reports of depressed feelings also were related to their experiences in after-school programs. Children who reported more positive experiences at their after-school programs were less likely to report feeling depressed in second, third, and fourth grades. When we examined specific aspects of program experience in third and fourth grades, we found that children who had more positive relations with peers at their after-school programs reported feeling less depressed than children who had less positive peer relations, even after controlling for the children's prior depressed feelings, gender, and family characteristics.

OVERHEAD 27: CONCLUSIONS

According to one well-known measure of after-school program quality, the SACERS, most of the programs we observed were of minimal quality. Despite this, we found associations of observer and child reports of children's program experiences with children's academic performance, social competence, and emotional well-being, even after controlling for children's prior functioning and child and family characteristics associated with children's development.

- Children enrolled in programs that provided a more positive emotional climate, more flexible programming, and more age-appropriate activities had better academic grades in second and third grades than children enrolled in programs that were less positive, more structured, and offered fewer age-appropriate activities.
- Girls enrolled in programs with higher observed quality had better work habits and better social skills at school in third and fourth grades than girls enrolled in lower quality programs.
- Children who reported more positive experiences at the programs, compared to children who reported less positive experiences, were less lonely and less depressed in second, third, and fourth grades.

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