

A COMPARISON OF FORMAL AFTER-SCHOOL PROGRAM TYPES

Kim M. Pierce, Jill V. Hamm, Colette Sisco, & Kristen Gmeinder

University of Wisconsin-Madison

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ABSTRACT

A variety of factors have been hypothesized to distinguish high-quality after-school programs from low-quality ones, yet little systematic research examining these factors has been conducted. This study compared different types of formal after-school programs and varying levels of program regulables in terms of program environment, caregiver style, children's activities and interactions, and child and parent satisfaction with the program. Analyses revealed significant differences between profit and nonprofit programs; school-based, day care center-based, and community programs; and the different levels of program regulables. Additionally, significant associations between program, child, and parent variables were identified.

INTRODUCTION

In recent years, there has been a growing public awareness that needs for child care are not restricted to families with infants and preschoolers. Recent estimates are that as many as 75% of families with school-aged children must make some sort of child care arrangements for the times when their children are not attending school (Hofferth & Phillips, 1987). One common arrangement is attendance at a formal after-school program.

Policymakers and practitioners have proposed that high-quality school-age child care programs are distinguishable from low-quality programs on the basis of (a) differences in the quality of interactions between children and staff, (b) the presence of age-appropriate programming and activities, (c) child satisfaction, and (d) regulables such as staff-child ratios, educational training of staff, and space available for activities. Unfortunately, there has been little systematic research on the nature of children's experiences in formal after-school programs, so the import of these assumed quality indicators has not been documented. Such research is necessary to provide an empirical base for public policy, and inform developmental theory and educational practice.

The extent to which presumed quality indicators influence children's experiences in after-school programs is unknown. In studies of early child care, regulables such as **group size** and **child:caregiver ratio** translate into more positive interactions between children and caregivers (Howes, 1983; Howes & Rubenstein, 1985; Roupp, Travers, Glantz, & Coelen, 1979) and among children (Clarke-Stewart, Gruber, & Fitzgerald, 1994). More **caregiver education**, particularly at the college level, is associated with more frequent positive caregiver-child interactions, greater caregiver sensitivity, and less caregiver detachment and harshness (Whitebook, Howes, & Phillips, 1989). A mid-range of **caregiver experience** may be optimal for young children's day care experiences: Fosburg and his colleagues (Fosburg, 1981; Fosburg et al., 1980) observed that

the most helpful and affectionate caregivers had less than 3 years of experience, while the most strict had, on average, 11 years. Associations between regulables and other indices of quality, and with children's time use in after-school programs, remain to be studied.

Some studies of quality in early child care have compared arrangements that vary by **auspice**. In infant and preschool programs, nonprofit, as compared to proprietary centers, typically boast lower staff-child ratios, more child-sensitive environments, more stimulating materials, and behavior management policies that minimize disruption (Kagan & Newton, 1989). Caregivers at nonprofit programs are more highly educated and more experienced (Kagan & Newton, 1989), and more sensitive and less harsh (Whitebook et al., 1989), than caregivers at for-profit centers.

Regarding program **location**, Seligson (1986) notes that school-based after-school programs operated by external agencies are increasingly common. Community centers also emerge as a care option for school-age youth. These programs represent a unique form of care, distinguished by their proprietary status (typically government-subsidized) and location. Programs such as Head Start tend to exhibit high levels of quality (Kagan & Newton, 1989), but whether other types of government-subsidized programs are of similar high quality is unclear. Research that assesses the quality of school-age care at school-based programs, day care centers, and community centers is notably lacking.

Finally, the literature reports a high level of satisfaction with after-school arrangements among parents and children (cf. Miller & Marx, 1990). The extent to which indicators of quality and children's time use at after-school are associated with parent and child satisfaction has not been established.

The objectives of this paper include:

1. To examine the extent to which the caregiving environment, caregiver style,

- children's activities and interactions with others, and child and parent satisfaction with care differ by program type and program regulables.
2. To examine associations between program regulables and program quality indicators.
 3. To identify the specific variables which are associated with child and parent satisfaction with after-school programs.

METHOD

Participants

Participants included 150 first graders who attended 38 formal after-school programs. Fifty-one percent of the participants were male; 87% were White. The after-school programs varied in location (elementary school, community center, and day care center) and auspice (nonprofit and proprietary).

Measures

Children's program activities and interactions. Three 20-minute time sample observations (one per month for 3 months) of each child's activities and interactions were conducted at the after-school programs. Each time sample consisted of 40 intervals (20-second observe, 10-second record). For each interval, observers coded the child's activity, who the child interacted with (peers, caregivers, or both), and the tone of the interactions (positive/neutral or negative).

Caregiver style. Four-point qualitative ratings were made of three facets of caregiver style: **behavior management** skills and techniques, **positive regard** for children, and **negative regard** for children. All caregivers who were present during a particular child's time sample were rated following the time sample and an additional 10 minutes of observation.

Program regulables. The Wellesley ASQ Director Interview (O'Connor, 1991), modified to a questionnaire format, was completed by program directors to obtain information

about **program size, staff-child ratio, caregiver education, and caregiver experience.**

Program environment. Several aspects of the program environment were assessed. Four-point qualitative ratings were made of (a) **programming flexibility**, or the extent to which children were allowed autonomy in choosing their activities and play partners, and (b) **available activities**, or the range and number of developmentally appropriate activities offered to children. The physical **space**, as well as **materials and equipment**, were scored with the Program Environment Checklist (PEC), a measure developed for this study. Mean item scores on the PEC could range from 0-12.

Child reports about the programs. One subscale of the After-School Environment Scale (Rosenthal & Vandell, 1996) was utilized to obtain children's general satisfaction with the after-school program and support received from caregivers. A mean item score was computed, with a possible range of 1-3.

Parent satisfaction with care. Parental satisfaction with the after-school programs was measured with a 5-point rating of overall satisfaction.

RESULTS

Differences Associated with Program Type

A series of *t*-tests was conducted to examine how program types may differ in terms of children's activities and interactions, caregiver style, program environment, and child and parent satisfaction with after-school program care. Significant differences were revealed in comparisons of profit vs. nonprofit programs (Table 1), school-based vs. day care center programs (Table 2), and community centers vs. other programs (Table 3).

- For-profit programs, compared to nonprofit programs, were associated with:
 - more TV/video watching, less time in snack, and more unoccupied time
 - more time not interacting with anyone

- poorer caregiver style ratings
- poorer program environment ratings
- less parent satisfaction
- Programs located in schools, compared to day care center programs, were associated with:
 - more large- and fine-motor activity time, and less time in transitions
 - better caregiver style ratings
 - greater programming flexibility
 - more available space, materials and equipment
- Community center programs, relative to other programs, were associated with:
 - more time in transition and less time engaged in fine-motor activities and arts and crafts
 - better caregiver style ratings
 - fewer offered activities
 - less available space and materials and equipment

Differences Associated with Program Regulables

One-way ANOVAs were conducted to determine how care variables may differ across varying levels of the program regulables: program size (Table 4), staff-child ratios (Table 5), caregiver education (Table 6), and caregiver experience (Table 7).

- Children in smaller programs, compared with much larger programs:
 - had more positive/neutral interactions with caregivers
 - spent more time engaged in interaction as the primary activity
- Larger staff-child ratios, compared with smaller ratios, were associated with:
 - more time engaged in large-motor activities

- less time spent in interaction as the primary activity
- more time in transition
- poorer caregiver style ratings
- less programming flexibility
- A mid-range of caregiver education was related to:
 - less time doing arts and crafts
 - less time in fine-motor activities
 - more time in transition
- More caregiver education was related to greater parental satisfaction with care
- An intermediate amount of caregiver experience was most beneficial for children in terms of caregiver positive regard, but less beneficial in terms of children's negative interactions with peers.

Pearson correlations also were computed between the program regulables and other program variables, as well as child and parent satisfaction with care.

- Program size was correlated with:
 - large-motor activity time .18*
 - time spent interacting as the primary activity -.17*
 - time engaged in fantasy play -.17*
 - frequency of children's positive/neutral interactions with caregivers -.24**
 - frequency of children's negative interactions with peers .17*
 - programming flexibility .35*
- Staff-child ratio was associated with:
 - caregivers' behavior management skills -.23**
 - caregiver positive regard -.21**

- caregiver negative regard .19*
- large-motor activity time .23**
- time engaged in interaction as main activity -.18*
- time spent in transitions .22**
- frequency of positive/neutral interactions with caregivers -.16*
- Caregiver education was associated with:
 - unoccupied time -.17*
 - caregiver negative regard -.20*
 - parent satisfaction with care .30***
- Caregiver experience was correlated with:
 - large-motor activity time .18*
 - time spent in transition -.20*

Variables Associated with Child and Parent Satisfaction with Care

Associations between the time sample and caregiver variables, and child and parent reports about the programs, were determined by computing Pearson correlations.

- Children's reports of supportive relations with caregivers in the after-school programs were associated with:
 - frequency of positive/neutral interactions with peers -.21* and with caregivers .28**
 - large-motor activity time -.17*
 - fine-motor activity time -.21*
 - time spent cleaning up .17*
- Parents' overall satisfaction with the after-school programs was associated with:
 - time children spent playing games such as cards and board games .21*

- time children spent in fantasy play $-.20^*$

CONCLUSIONS

- School-age after-school programs have a recreational focus, with an emphasis on supervision. A better quality environment, both physical and affective, was provided by nonprofit programs, and by programs located in elementary schools. Programs provided by community centers offered a poorer quality physical environment and fewer activity choices than other programs, but a better affective environment.
- Postulated program quality indicators discriminated between profit and nonprofit programs, and school- and center-based programs, particularly with respect to caregiver style and program environment.
- Several relationships between program regulables and quality indicators reported in the literature for preschool day care programs were mirrored in school-age child care with respect to program size (Roupp et al., 1979), staff-child ratio (Howes, 1983; Howes & Rubenstein, 1985), and caregiver education (Arnett, 1989).
- Child reports of caregiver supportiveness derived from interactions with others and participation in certain activities. Parent satisfaction with after-school programs was not associated with caregiver education.

Table 1

Significant *t*-test Comparisons of Profit vs. Nonprofit After-School Programs

	Profit	Nonprofit
CHILDREN'S ACTIVITIES		
Watching television or videos	2.64	1.08*
Snack	2.73	4.81*
Unoccupied	0.87	0.33*
CHILDREN'S INTERACTIONS		
No interactions	12.10	9.75*
CAREGIVER STYLE		
Behavior management	2.17	2.57***
Positive regard	2.45	2.70**
Negative regard	1.27	1.08***
PROGRAM ENVIRONMENT		
Flexibility	2.57	3.32***
Available activities	2.39	2.80*
Space, materials & equipment	1.54	1.73**
PARENT SATISFACTION		
Overall satisfaction	4.25	4.62***

Note. For the difference in means, * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$.

Table 2

Significant *t*-test Comparisons of School-Based vs. Center-Based After-School Programs

	School-based	Center-based
CHILDREN'S ACTIVITIES		
Large motor	11.20	7.54*
Fine motor	4.22	2.02*
Transition (e.g., standing in line)	1.83	3.02**
CAREGIVER STYLE		
Behavior management	2.48	2.23*
Negative regard	1.10	1.27***
PROGRAM ENVIRONMENT		
Flexibility	3.34	2.51***
Space, materials & equipment	1.71	1.56*

Note. For the difference in means, * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$.

Table 3

Significant *t*-test Comparisons of Community Centers vs. Other After-School Programs

	Community center	Other program
CHILDREN'S ACTIVITIES		
Transition (e.g., standing in line)	5.76	2.41 ^{***}
Fine motor	0	3.16 ^{***}
Arts & crafts	1.00	4.25 ^{**}
CAREGIVER STYLE		
Behavior management	3.05	2.36 ^{**}
Positive regard	3.00	2.57 [*]
Negative regard	1.02	1.18 ^{***}
PROGRAM ENVIRONMENT		
Available activities	1.75	2.58 ^{**}
Space, materials & equipment	1.24	1.63 ^{**}

Note. For the difference in means, ^{*} $p \leq .05$ ^{**} $p \leq .01$ ^{***} $p \leq .001$.

Table 4

Significant ANOVA Comparisons of Program Size Levels

	Program size (# children)		
	1-20	21-40	41-60
CHILDREN'S ACTIVITIES			
Interaction as main activity	5.07 _a	3.67	2.90 _b [*]
CHILDREN'S INTERACTIONS			
Positive/neutral with caregivers	8.58 _a	7.45	5.72 _b [*]

Note. Subscripts denote significant differences in mean scores.

^{*} $p \leq .05$ ^{**} $p \leq .01$ ^{***} $p \leq .001$.

Table 5

Significant ANOVA Comparisons of Staff-Child Ratios

	Staff-child ratio (# children/adult)		
	1-8	9-13	14 +
CHILDREN'S ACTIVITIES			
Large motor	6.66 _a	8.77	12.53 _b [*]
Watching TV or video	3.89 _a	0.74 _b	3.00 _a ^{***}
Interaction as main activity	5.47 _a	3.40 _b	3.15 _b [*]
Transition (e.g., standing in line)	2.02 _a	2.21 _a	3.64 _b ^{**}
CAREGIVER STYLE			
Behavior management	2.33	2.55 _a	2.07 _b ^{**}
Positive regard	2.70 _a	2.67 _a	2.33 _b ^{***}
Negative regard	1.15 _a	1.12 _a	1.33 _b ^{***}
PROGRAM ENVIRONMENT			
Flexibility	2.94	3.14 _a	2.48 _b [*]

Note. Subscripts denote significant differences in mean scores.

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

Table 6

Significant ANOVA Comparisons of Caregiver Education

	Caregiver education		
	High school	Some training	Bachelor's degree +
CHILDREN'S ACTIVITIES			
Arts and crafts	7.38 _a	3.28 _b	5.25 [*]
Fine motor	6.58 _a	2.39 _b	3.58 [*]
Transition (e.g., standing in line)	1.11 _a	3.17 _b	1.26 _a ^{***}
PARENT SATISFACTION			
Overall satisfaction	4.00 _a	4.45	4.53 _b [*]

Note. Subscripts denote significant differences in mean scores. Overall *F* tests were significant for children's negative interactions with caregivers and caregiver negative regard for children, but the means were not different.

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

Table 7

Significant ANOVA Comparisons of Caregiver Experience

	Caregiver experience (# months)		
	1-24	25-36	37 +
CAREGIVER STYLE			
Positive regard	2.66	2.88 _a	2.45 _b ^{***}
CHILDREN'S INTERACTIONS			
Negative with peers	0.33 _a	0.81 _b	0.37 _a [*]

Note. Subscripts denote significant differences in mean scores.

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

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