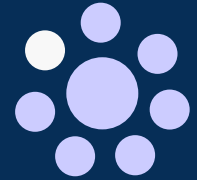


Type of Child Care

Scorecard



Characteristics of the Reports

Assessments of development were obtained for *more than 7,500* children to determine the relationships to type of child care.

Country of Origin	
	# of Reports
Canada	1
Bermuda	0
Sweden	2
UK	0
USA	6

Research Designs	
Retrospective	Prospective
0	9
No Follow-up	Follow-up
1	8
Observational	Experimental
8	1

Summary of Results

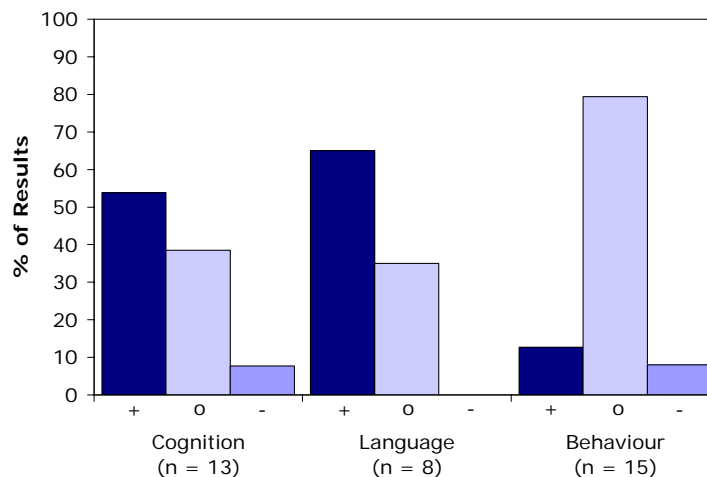
9 Reports			
Associated with Better Development	Cognition	Language	Behaviour
Centre	3	3	3
Home	1	0	0
Mixed results	1	1	1

The 9 reports on this factor contained 36 tests of children's development. Each result in each report was given a value of 1 and a sign (+, 0, or -) based on whether the result was statistically significant.

If a test contained subtests (subscales), the result of each subscale was assigned a fractional value. Fractional values could be positive, zero, or negative within the same test. For that reason, percentage of results were not always whole numbers.

A positive sign means that type of care was related to higher scores on tests of children's development. A negative sign means that type of care was related to lower scores on the test. Zero means that type of care was unrelated to the test results.

Other Considerations



Relationships of Child Care to Children's Development

Good research methods remove (through selection or statistical control) characteristics of children and families that might masquerade as outcomes of the child care factor in question. For example, if families of children who spent more time in child care were financially poorer than those of children who spent less time in care, any differences in their development said to be due to time in care could be challenged as differences due to the impact of poverty. Removing confounding variables adds credibility to conclusions.

In the 9 reports, researchers controlled for the following variables.

Variables Most Frequently Removed from Outcomes			
Variable	# of Reports	Variable	# of Reports
Child's gender	6	Family structure (parents, guardians)	3
Maternal education	6	Home environment	3
Family income	6	Maternal psychological adjustments/well-being	3
Ethnicity	4	Quality of care	3
Employment status	3	Study location	3
Other Variables Removed			
<p>Child: Age, Amount of infancy day care, Birth order, Child IQ, Child outcomes at first testing, Child social skills, Child temperament, Prior cognitive performance, Time spent in care.</p> <p>Child Care/School: Caregiver training, Home care stimulation, School enrolment status, Social support system, Stability of care.</p> <p>Family: Cognitive stimulation at home, Emotional support in home, Maternal behaviour, Maternal separation anxiety, Maternal stimulation, Maternal vocabulary, Number of minors, Number of siblings, Parental attitudes, Parental practices, Socio-economic status.</p>			

Andersson, B. (1989). Effects of public day-care: A longitudinal study. *Child Development*, 60, 857-866. [Full Text](#)

119 Swedish children were followed from their first year of life up to the age of 8. Most could be classified according to (a) type of day-care they had experienced during their first 7 years of life and (b) time of first entrance into day-care. At 8 years, the children were tested with aptitude tests and rated by their teachers on school performance and social and personal development. Hierarchical regression analyses and MANCOVAs were used in the statistical treatment. Time of entrance into day-care predicted children's cognitive and socioemotional development, controlling for sex and home background. Children with early day-care (entrance before the age of 1) were generally rated more favorably and performed better than children with late entrance or home care. There was a tendency for early center care to predict a more favorable outcome than other care. (Author's Abstract)

Country	Sweden
Sample Size	119
Age	School Age
Database	---
Design	Prospective Follow-up Observational
Factors	Age of Entry Type of Care

Broberg, A. G., Hwang, C. P., Lamb, M. E., & Bookstein, F. (1990). Factors related to verbal abilities in Swedish preschoolers. *British Journal of Developmental Psychology*, 8, 335-349. [Full Text](#)

In a prospective longitudinal study concerned with the effects of in- and out-of-home care 140 Swedish children were studied. These analyses using partial least squares analysis procedures focus on the 84 children who remained in home care, family day care, or centre day care through the two years of the project, beginning when the children averaged 16 months of age. Griffiths scale C scores 12 and 24 months later were best predicted by earlier Griffiths scores and contemporaneous measures of the quality of home care, measures which were themselves moderately stable over time. Contemporaneous measures of the children's sociability were also significantly correlated with Griffiths scale C performance. Neither the type nor quality of out-of-home care was predictively important. These results show that the quality of care received by children at home is more influential, where verbal abilities are concerned, than either the type or quality of out-of-home care. (Authors' Abstract)

Country	Sweden
Sample Size	84
Age	Preschool
Database	---
Design	Prospective Follow-up Experimental
Factors	Quality Type of Care

Caughy, M., DiPietro, J. A., & Strobino, D. M. (1994). Day-care participation as a protective factor in the cognitive development of low-income children. *Child Development*, 65, 457-471. [Full Text](#)

The impact of day-care participation during the first 3 years of life on the cognitive functioning of school age children was examined. 867 5- and 6-year-old children from the National Longitudinal Survey of Youth who completed the 1986 assessment were included in the sample. The dependent measures were scores on the Peabody Individual Achievement Test (PIAT) subtests

Country	USA
Sample Size	867
Age	Preschool & School Age
Database	NLSY
Design	Prospective Follow-up Observational
Factors	Age of Entry Time Spent Type of Care

of mathematics and reading recognition. In addition to day-care participation, the impact of the pattern of day-care was examined by analyzing the effect of the number of years in day-care, the timing of initiation of day-care, and type of day-care arrangement. After controlling for confounding factors, there were significant interactions between all 3 measures of day-care patterning and family income for reading recognition performance. This association was further examined by exploring the interaction between the pattern of day-care participation and the quality of the home environment. Initiation of day-care attendance before the first birthday was associated with higher reading recognition scores for children from impoverished home environments and with lower scores for children from more optimal environments. In addition, a significant interaction between the type of day-care arrangement and the quality of the home environment emerged for mathematics performance. Center-based care in particular was associated with higher mathematics scores for impoverished children and with lower mathematics scores for children from more stimulating home environments. These findings are discussed in the context of developmental risk. (Authors' Abstract)

Goelman, H., & Pence, A. R. (1987). Some aspects of the relationships between family structure and child language development in three types of day care. In S. Kontos & D.L. Peters, (Eds.), *Continuity and Discontinuity of Experience in Child Care* (pp.129-146). Norwood, NJ: Ablex Publishing. [Full Text](#)

Investigated ways in which structure, process, and family context variables have an impact on each other and on the development of children in different types of daycare (DC) from different family backgrounds. Ss were the children, their parents, and caregivers in 3 caregiving settings in Canada: licensed DC centers (LDCs), licensed family DC homes (LDCHs), and unlicensed family DC homes (UDCHs). Ss included 53 triads in the LDCs, 27 in the

Country	Canada
Sample Size	105
Age	Preschool
Database	Victoria Day Care Research Project
Design	Prospective Follow-up Observational
Factors	Quality Teacher Education Type of Care

LDCH group, and 25 in the UDCH group. All of the children were aged at least 30 mo. Results of Peabody Picture Vocabulary Test (PPVT) and Expressive One-Word Picture Vocabulary Test scores were examined to determine evidence of roles played by family structure and type of DC arrangement. Results suggest a dynamic interaction of family and DC variables that affect the child's expressive and receptive language development. (*PsycINFO* Abstract)

Loeb, S., Fuller, B., Kagan, S. L., & Carrol, B. (2004). Child care in poor communities: Early learning effects of type, quality, and stability. *Child Development*, 75, 47-65. [Full Text](#)

Young children in poor communities are spending more hours in nonparental care because of policy reforms and expansion of early childhood programs. Studies show positive effects of high-quality center-based care on children's cognitive growth. Yet, little is known about the effects of center care typically available in poor communities or the effects of home-based care. Using a sample of children who were between 12 and 42 months when their mothers entered welfare-to-work programs, this paper finds positive cognitive effects for children in center care. Children also display stronger cognitive growth when caregivers are more sensitive and responsive, and stronger social development when providers have education beyond high school. Children in family child care homes show more behavioral problems but no cognitive differences. (Authors' Abstract)

Country	USA
Sample Size	451
Age	Preschool
Database	---
Design	Prospective Follow-up Observational
Factors	Quality Teacher Education Type of Care

NICHD Early Child Care Research Network (1998). Early child care and self-control, compliance, and problem behavior at twenty-four and thirty-six months. *Child Development*, 69, 1145-1170. [Full Text](#)

To evaluate child-care effects on young children's self-control, compliance, and problem behavior, children enrolled in the NICHD Study of Early Child Care were tested and observed in the laboratory and in child care at 24 and 36 months, and mothers and caregivers completed questionnaires. Indicators of child-care quantity, quality, stability, type, and age of entry, along with measures of family background, mothering, and child characteristics obtained through the first 3 years of life were used to predict 2 and 3 year child functioning. Results revealed (1) mothering to be a stronger and more consistent predictor of child outcomes than child care; (2) little evidence that early, extensive, and continuous care was related to problematic child behavior, in contrast to

Country	USA
Sample Size	1085
Age	Preschool
Database	NICHD
Design	Prospective Follow-up Observational
Factors	Age of Entry Quality Stability Time Spent Type of Care

results from earlier work; (3) that among the child-care predictors, child-care quality was the most consistent predictor of child functioning, although limited variance could be explained by any (or all) child-care variables; and (4) that virtually none of the anticipated interactions among child-care factors or between them and family or child measures proved significant. (Author's Abstract)

NICHD Early Child Care Research Network (2000). The relation of child care to cognitive and language development. *Child Development*, 71, 960-980. [Full Text](#)

Children from 10 sites in the United States were followed from birth to age 3 to determine how experiences in child care relate to cognitive and language development (*Ns* varied between 595 and 856, depending on the assessment). Multiple assessments of family and child care environments and of cognitive and language competence were

Country	USA
Sample Size	856
Age	Infant & Preschool
Database	NICHD
Design	Prospective Follow-up Observational
Factors	Quality Time Spent Type of Care

collected. Analyses that adjusted for maternal vocabulary score, family income, child gender, observed quality of the home environment, and observed maternal cognitive stimulation indicated that the overall quality of child care, and language stimulation in particular, was consistently but modestly related to cognitive and language outcomes at ages 15, 24, and 36 months. The effect sizes for high (top quartile) versus low (bottom quartile) quality ranged from .18 to .48. After adjusting for child care quality, cumulative experience in center-based care was associated with better outcomes than was participation in other types of care. The amount of time children spent in care was not related to outcomes. Children in exclusive maternal care did not differ systematically from children in child care. Tests for lagged relations of earlier child care experiences to later performance (adjusting for current child care) showed that language stimulation predicted subsequent cognitive and language performance 9 to 12 months later. Although children in center care at age 3 performed better than children in other types of care, earlier experience in child care homes was associated with better performance at age 3 than was experience in other types of care. The relations of child care variables to outcomes did not vary consistently as a function of family income, quality of home environment, child gender, or ethnic group. (Author's Abstract)

NICHD Early Child Care Research Network (2004). Type of child care and children's development at 54 months. *Early Childhood Research Quarterly*, 19, 203-230. [Full Text](#)

The types of non-maternal child care received by more than 1000 U.S. children were examined from birth to 54 months and related to family selection factors and to child outcomes. Individual children tended to experience a variety of different types of care and not to fit into clear patterns of either stable care types or progressive patterns

Country	USA
Sample Size	1287
Age	Preschool
Database	NICHD
Design	Prospective Follow-up Observational
Factors	Time Spent Type of Care

of movement from less structured to more highly structured care settings. Across the entire sample, however, hours in center care were higher in the preschool period than earlier, whereas hours in relative care remained stable and hours in child care homes decreased. Mothers who were single, those with more education and less traditional beliefs about child rearing, and families with higher incomes and fewer children in the household were more likely to use more hours of center care than other families; single mothers and those with fewer children also used more hours of care in child care homes. Minority families, those with low incomes, and mothers with less education and fewer children used more hours of relative care. With family selection factors and quality of child care controlled, only hours in center care across the time period from 3 to 54 months were related to child outcomes. Children who experienced more center care were reported by caregivers at 54 months to have somewhat higher externalizing behavior problem scores than other children, although these scores were not in the clinical or at-risk range. Center care hours were also related to cognitive and language outcomes, with more hours in infancy associated with lower preacademic test scores and more hours in the toddler period with higher language scores. (Author's Abstract)

Votruba-Drzal, E., Coley, R. L., & Chase-Lansdale, P. L. (2004). Child care and low-income children's development: Direct and moderated effects. *Child Development*, 75, 296-312. [Full Text](#)

A large literature has documented the influence of child care on young children's development, but few studies have examined low-income children in community care arrangements. Using data from Welfare, Children, and Families: A Three-City Study ($N=204$), this study examined the influence of child care quality and the extent of care on low-income children's (ages 2–4 years) cognitive and socioemotional development over time. Higher levels of child care quality were modestly associated with improvements in children's socioemotional development, and extensive hours in child care were linked to increases in children's quantitative skills

Country	USA
Sample Size	204
Age	Preschool
Database	Welfare, Children, & Families: A Three-City Study
Design	Prospective No Follow-up Observational
Factors	Quality Time Spent Type of Care

and decreases in behavior problems. Analyses suggest that child care quality may be particularly salient for subgroups of children from low-income families. (Authors' Abstract)