

# The “child care will harm children” argument

## THE FORM OF THIS ARGUMENT IN THE PUBLIC DEBATE

Some groups and individuals believe that child care is, in general, harmful for children’s development. This view is based on studies which appear to show that non-parental child care has a negative effect on children, and that children cared for exclusively at home do better socially and cognitively, both immediately and in the long run. The conclusion, which is argued by some newspaper columnists and on radio and television phone-in shows, is that mothers who use non-parental care for their children may enjoy financial gains from work but their children will suffer developmentally.

In chapter 1, the argument was that children required full-time care by their mothers and the evidence dealt with what happened when some of that care is replaced. This chapter addresses the other side of the coin. What are the effects of child care on children’s development?

## A GENERAL STATEMENT OF THE EVIDENCE

Good child care matters. Harm is done to children when child care is inadequate, while good child care and good early education benefit children. These issues are not simply interesting research questions for investigation by academics. In our 1998 monograph (Cleveland & Krashinsky, 1998), we proposed significant increases in public spending on child care. A good part of the justification for that spending was the improvement in outcomes for children when the quality of early childhood education and care is improved.

The best available evidence strongly suggests that good quality child care is beneficial for children’s development, both for the cognitive/language/academic skills of children and for the social behaviour of children in the family and in the classroom. This should hardly be a surprise. It is universally accepted in Canada and elsewhere that, once children reach 5 years old, group education provided by well trained teachers with significant learning resources at hand will have strong positive impacts on young children—impacts large and positive enough to be worth the expenditure of billions of dollars of public money. Furthermore, all the evidence suggests that the first years of education have more impact than later years. The natural implication is that good quality early childhood education and care, provided to children 3, 4 or 5 years of age (or even younger) will have strong positive effects as well.

## THE EFFECTS OF CHILD CARE ON DISADVANTAGED CHILDREN

A major area of research on early childhood education and care has been concerned with its effects on children from low-income families. Overwhelmingly, these studies have found that good quality child care can have very positive effects on these children and that these advantages can be long lasting. In particular, good child care can compensate, at least partially, for a disadvantaged home life.

Of course, our main concern is not with disadvantaged children, but rather with all children. Still, it is worth taking a look at the literature on child care and disadvantaged children, partly because it provides a sense of the breadth of effects possible when young children are well cared for. Researchers have calculated the benefits and costs of providing child care services to these children, which gives us a good idea of the magnitude of the positive effects of good quality child care.

We will focus on two programs: Head Start and the Carolina Abecedarian Project.

## THE HEAD START PROGRAM

Most of the studies of child care used by children from low-income families involve small samples of children and specially-designed high-quality child care intervention programs. Studies of Head Start are particularly interesting because this is not true; Head Start is a widespread program with less exact controls over quality than in one-shot model programs. As a result, positive results that are found in research on Head Start are very unlikely to be due to chance factors. Head Start programs in the United States have provided half-day programs for low-income children (at 3 to 4 years of age) since the 1960s. These programs now provide early childhood services, including parent support and health monitoring to over 800,000 children per year.

One of the most careful of the studies on Head Start is reported in the Currie and Thomas paper *Does Head Start make a difference?* that was published in 1995 in the prestigious *American Economic Review*. This is an innovative study of Head Start's impact using data on siblings from the National Longitudinal Survey of Youth. By comparing one sibling who had participated in Head Start to another within the same family who had not, Currie and Thomas were able to hold constant many family-type factors that could otherwise be mixed-up with the effects of the Head Start program. They controlled statistically for a wide range of background factors and found that white children who had attended Head Start showed dramatic improvement in language skills and success in school (up to Grade 5). Head Start caused a 6 percentage point increase in PPVT (Peabody Picture Vocabulary Test) scores and a 47% decline in grade retention. Surprisingly, although the story started out the same for African-American children, these positive effects had disappeared by the time of Grade 5.

Currie and Thomas calculated that the measured increase in language abilities and drop in grade retention for white children (who form the majority of Head Start's clientele) could result in an increase in expected future wages by 4%, and a decrease of 5% in the likelihood of dropping out of high school. Using these rough calculations, they concluded that potential gains from Head Start are "much larger than the costs".

In a later study entitled *School quality and the longer-term effects of Head Start* (Currie & Thomas, 2000), the authors found an explanation for the poorer performance of African-American children who attended Head Start. The initial positive effects of Head Start for these children were offset in later years because many African-American children attended poorer quality neighbourhood schools.

In a recent working paper for the National Bureau of Economic Research in the U.S., Garces, Currie and Thomas (2000) investigated the longer-term effects of Head Start. They used data on young adults (in their 20s) who had attended Head Start in the 1960s and 1970s from the nationally-representative data in the Panel Study on Income Dynamics. This paper, entitled *Longer term effects of Head Start*, found long-run positive effects of early attendance in Head Start on education for whites (20% more likely to complete high school, 20–28% more likely to attend college), and reduced participation in undesirable behaviours for African-Americans (12 percentage points less likely to participate in criminal activity), holding all other factors constant. These are remarkable long-term effects of a program that obviously changed the path of development of many young children.

## THE CAROLINA ABECEDARIAN PROJECT

The Carolina Abecedarian Project was an intensive experiment that provided full-day child care 5 days a week for 50 weeks a year to very low-income, at-risk children. For many children, child care began at 6 weeks of age. The experiment involved 112 children, mostly African-American, whose family situations were believed to put them at risk of slowed development. On average, mothers in experimental families had 10 years of education, maternal IQ was 85 points, and 55% of households were collecting social assistance.

The project studied four groups of randomly assigned children. The first group—the control group—received only family support services, paediatric care and child nutritional supplements. The first "treatment" group received high

quality centre-based child care services for the first 5 years of the child's life and additional educational support services from kindergarten to Grade 2. The second "treatment" group received only the five years of early intervention child care. The third "treatment" group received only the kindergarten through Grade 2 educational support services.

Early intervention child care services had positive effects on IQ scores, on academic achievement and on the likelihood that a child would not be held back from passing a grade. The comparison group of similar children who only received education support after reaching school age did not have the same positive effects. The study found that for these children from disadvantaged families, the effects were larger the earlier participation in child care services began (Ramey & Campbell, 1987; 1991). Children who had participated in the program during the first 5 years of their lives had higher scores on tests of reading and mathematics achievement at 8 and 12 years. They were less likely to be held back from promotion to the next grade at ages 8, 12 and 15 and were less likely to be placed in special education.

The latest follow-up to 21 years of age shows that children who attended full-day child care had higher average test scores and were twice as likely to still be in school or to have ever attended a four-year college. The National Institute for Early Education Research has recently published (Masse & Barnett, 2003) a benefit-cost analysis of the Abecedarian Early Childhood Intervention that reveals how broad and long-lasting the effects of this program have been. Masse and Barnett report a range of measures that deliver important benefits to participants and the community:

- improved measures of intelligence and achievement over the long term leading to higher earnings and fringe benefits now and in the future;
- lower levels of grade retention and placement in special education classes leading to cost savings in elementary and secondary education;
- improved employment and earnings of mothers of the children receiving early childhood education services;
- reduced probability of smoking and improved health;
- reduced use of social assistance.

The costs of providing intensive high quality child care in the Abecedarian program were high. For infants, there was one staff member to every three children; for 2 and 3 year olds, there were two staff members for every seven children; for 4 and 5 year olds, the ratio was one to six. All staff were paid competitive public school salaries. As a result, in 2002 dollars, the annual cost of care per child was nearly \$14,000. Nevertheless, the value of the benefits, discounted back to the present, was found to be considerably higher than the costs. At a discount rate of 3%, the benefits were about four times as high as the costs.

## CONCLUSIONS

The literature on how child care affects the social and cognitive development of disadvantaged children has been carefully reviewed by several authors (Karoly et al., 1998; Love, Schochet & Meckstroth, 1996; Lamb, 1998; Currie, 2000; Barnett, 1998). In the review prepared for the Rockefeller Foundation, Love and his colleagues wrote, "the preponderance of evidence supports the conclusion of a substantial positive relationship between child care quality and child well-being." (p. 3). Lamb's review concluded that: "Quality day care from infancy clearly has positive effects on children's intellectual, verbal and cognitive development, especially when children would otherwise experience impoverished and relatively unstimulating home environments." (p. 104). The conclusion from this literature would appear to be that for children from disadvantaged families, exclusively parental care is often insufficient for their developmental needs. These children can be made better off by involvement in well-designed supplementary child care programs, and the effects are long lasting.

## THE EFFECTS OF CHILD CARE ON ALL CHILDREN

Because of the interests of researchers and the availability of funding, many of the early American studies of child care and especially the ones that follow children for many years concentrated on children from low-income backgrounds. However, more recent studies on groups of children from a mix of different backgrounds using regular child care services appear to have found similar results, especially if the studies are able to identify better quality programs. There are a number of ways of identifying better quality programs, and different studies use different methods. Developmental psychologists and child care researchers agree that measures of process quality—which assess both the quality of the child care environment in which children play and learn, as well as the quality of the teacher-child interactions—are the best way of measuring the features of a child care service that will promote child development.

Process quality is measured by trained observers, following carefully developed guidelines; in on-site observations of child care activities. Two well-known process quality measures are ECERS (Early Childhood Environment Rating Scale) and ITERS (Infant-Toddler Environment Rating Scale), although there are a number of other alternatives or supplementary measures. A specially designed quality measure which allows for quality comparisons across different types of care, including both informal and regulated care, is known as the ORCE (Observational Record of the Caregiving Environment).

Research on the effects of child care quality on children's development is not easy to do. The research is difficult because there are a very large number of factors that will affect any child in his or her development over the course of childhood and into adult life. In order to find out what the separate contribution of child care is to a child's life, we need to be able to hold all these other factors constant, change the type or amount or quality of non-parental child care that a child receives, and then watch for and measure the effects of this experiment on the child's development. Further, because children are not randomly assigned to different quality levels and types of child care, statistical work needs to account for what are called "selection effects".

### THE NICHD STUDY

The best study to date of the general effects of child care on all children is the one sponsored by the National Institute for Child Health and Human Development (NICHD) in a study that is still ongoing. This is virtually the only large and longitudinal data set to collect three crucial pieces of information over time: (1) regular on-site measurements of the quality of different kinds of child care used by children, (2) regular assessments of the kind and quality of care children are receiving from their families, and (3) detailed information about the changes in child care arrangements as children age. These items, together with detailed assessments of child outcomes and a host of child and family information, makes this data set unique for looking at the long-term effects of child care on children.

Mothers in ten different centres around the United States were approached in hospitals shortly after they had given birth and were asked to participate in this study. The final sample of about 1300 children and families has provided an enormous amount of data from the very beginning of these children's lives, and the data collection is still continuing.

The study is unique in a number of ways. It has regularly collected (at 6 months, 15 months, 24 months and 36 months) good measures of the quality of non-parental child care the child received, no matter what the type or location of this care. Phone interviews were collected every 3 months to track hours and types of child care. The NICHD study also collected detailed information about the quality of care provided by mothers to their own children (using the HOME scale as well as an assessment of mother's sensitivity based on videotaped observations of mother-child interaction). The mental development of children was assessed at 15 months and 24 months using the Bayley scale, the most widely used measure of cognitive developmental status for children in their first 2 years of life. At 36 months of age, school readiness of children was measured using the Bracken School Readiness Scale, a scale that assesses knowledge of colour, letter identification, numbers and counting, shape recognition, and ability to make comparisons. Further, expressive language skills and receptive language skills were measured at 15 and 24 months using age-appropriate versions of the MacArthur

Communicative Development Inventory (CDI) and at 36 months using the Reynell Developmental Language Scales. On top of that, detailed information about family characteristics and changes in family characteristics over time were collected.

The general conclusion is that the quality of child care matters. Overall, average outcomes for the children in child care were about the same as those for children cared for exclusively by their parents. But there is a wide range of child care quality in the study. Children in good quality child care did significantly better than children in poor quality child care arrangements. How were these results obtained?

When children were 36 months of age, the researchers in the NICHD Early Childhood Research Network analyzed the effects of child care on children to that date. The analyses (NICHD, 2000) controlled for two different measures of the quality of maternal care provided at home, for the child's gender, for the mother's vocabulary level, for family income, and for type, amount and quality of child care used since birth. Holding this wide range of factors constant, this study found that the quality of non-parental child care mattered to virtually all measured child outcomes at 15, 24 and 36 months. In general, the higher the quality of care received, the better children did on measures of cognitive functioning and language development. In particular, it was the language stimulation by caregivers that had significant positive effects on cognitive and language outcomes of children.

Further, in analyses that controlled for maternal vocabulary, family income, measures of the quality of care at home and child's gender, the effects of child care quality were compared to the effects of care provided exclusively by mothers at home (defined as receiving less than 10 hours per week of non-maternal care). In language skills assessed at 24 months and in school readiness assessed at 36 months, the children who had received high quality child care scored significantly better than children who had only received care from their mothers. On virtually all measures, children in high quality care scored better than those from exclusively maternal care. Those in low quality child care scored worse, although these differences were not always statistically significant (NICHD, 2000).

Does this mean that mothers' care is bad for children? Not at all. The results of the research done with that data so far show that the quality of child care and the quality of home care are both highly significant in affecting child development (with home care's effects being about twice as large as those of child care). The quality of child care affects all measures of development at different ages.

What this means is that good quality early childhood care, even for children before their third birthday, generally has positive effects in supplementing care provided at home. That's not true for all and any out-of-home care. In fact, taking all children with child care experience together and comparing them to all children in exclusively maternal care, this research suggests that "children in exclusive maternal care did not consistently differ from children in non-maternal care." (NICHD, 2000, p. 976). This conclusion is important: it suggests that research looking only at the effects of "child care" on children (without any measures of the quality of care) is highly likely to find no effects on average. However, good quality child care will have important positive effects on young children.

Another noteworthy result of the ground breaking NICHD study is that both non-disadvantaged children, and children from low-income or disadvantaged families showed gains in outcomes when the quality of child care increased. Once the quality of home care is controlled, children from all backgrounds benefit similarly from good quality early care. This finding suggests that research evidence on the positive effects of early childhood education on disadvantaged children applies more broadly to all children.

## OTHER STUDIES

Many other studies tend to confirm the NICHD results. For instance, the Cost, Quality and Child Outcomes Study (Helburn, 1995) studied child care in the classrooms of about 400 child care centres in four states—California, Colorado, Connecticut and North Carolina. The original study provided information about the immediate effects of child care on

children. A sub-sample of these same children was followed through two years of child care, through kindergarten and to the end of Grade 2 at school (Peisner-Feinberg et al., 1999). Children were assessed for receptive language skills, reading ability and math skills, cognitive skills, sociability, and problem behaviours. Controlling statistically for maternal education, child's gender, ethnicity and the quality of teaching at the elementary level, researchers assessed the relationships between child care quality at age 4 and children's developmental outcomes after Grade 2. Children who were enrolled in higher quality child care classrooms were found to have better receptive language skills in pre-school and in kindergarten, although these results were no longer statistically significant in Grade 2. Higher quality child care was associated with better math skills before school entry and right up through second grade.

Andersson's study of Swedish children in 1992 provides information about the long-term cognitive and social effects of a uniformly high quality early childhood education and care system on children. The originally published study, when children were 8 years old, was based on a sample of 128 families drawn from low- and middle-resource areas of Sweden's two largest cities. A follow-up study, when the children were 13 years old, controls statistically for family background, gender of the child, child's native intelligence, and child's achievement at 8 years old. With these factors controlled, the earlier a child entered child care, the stronger the positive effect on academic achievement at 13 years old. For children entering child care in their second year of life or earlier, the academic benefit was found to be an improvement of between 10–20% in academic performance at age 13, compared to children cared for exclusively at home. Andersson's (1992) conclusion was that "early entrance into day care tends to predict a creative, socially confident, popular, open and independent adolescent" (pp. 32–3).

The following summary from *Neurons to neighbourhoods: The science of early childhood development* (Shonkoff & Phillips, 2000) is worth quoting because it presents a balanced assessment of the effects of child care quality and indicates some of its key features. The assessment is based on critical review of a wide range of recent studies:

In sum, the positive relation between child care quality and virtually every facet of children's development that has been studied is one of the most consistent findings in developmental science. While child care of poor quality is associated with poorer developmental outcomes, high quality care is associated with outcomes that all parents want to see in their children, ranging from co-operation with adults to the ability to initiate and sustain positive exchanges with peers, to early competence in math and reading ... The stability of child care providers appears to be particularly important for young children's social development, an association that is attributable to the attachments that are established between young children and more stable providers. For cognitive and language outcomes, the verbal environment that child care providers create appears to be a very important feature of care (pp. 313–314).

## HOW DO WE RESPOND TO STUDIES THAT APPEAR TO REACH OPPOSITE CONCLUSIONS?

There are three groups of studies that conclude that child care does not have long-term positive effects on children. Each has its own problems. These are:

- studies that do not have data on the level of quality of child care,
- studies that find that the effects of child care "fade out",
- studies that find that "quality doesn't matter".

### STUDIES THAT DO NOT HAVE DATA ON THE LEVEL OF QUALITY OF CHILD CARE

There are a number of studies (see Blau, 1999; Lefebvre & Merrigan, 2002; Blau & Grossberg, 1992; Hill & O'Neill, 1994; Ruhm, 2000) that find that child care has no effect on children's cognitive, or other, abilities. Inevitably, these studies have no information about the quality of child care (or the quality of care by parents). Not all child care is good; in fact, the average quality of child care in North America is mediocre or worse. Studies that mix together different qualities of child care will only find positive effects if the quality of child care is particularly good on average (e.g., Sweden, Denmark) or if the quality of parental care is particularly poor on average. In North America, most of these studies find no substantial effects of child care when different qualities are mixed together.

## STUDIES THAT FIND THAT THE EFFECTS OF CHILD CARE “FADE OUT”

Some researchers believe that the strongly positive effects of early intervention programs on disadvantaged children will “fade out” over time. To a large extent this view is inappropriate. Many early studies of early intervention programs did apparently find that effects on academic achievement were less pronounced in higher grades for children who had been involved in early childhood interventions. However, Steven Barnett from Rutgers University (1993,2002) has shown that many of these findings are biased by measurement technique. Classroom testing of treatment and control groupings often excluded children in special education classes. Since more of the control group were in special education, this gave the misleading appearance that academic advantages of the early intervention children were diminishing. Barnett’s interpretation is made more credible when we notice that the same children did not experience “fade out” when their development was measured by grade retention, participation in special education classes, and similar measures. Of course, some decrease over time in the positive effect of early childhood experiences is not surprising in cases where the children have strongly negative schooling or social experiences later in life (Currie & Thomas, 2000; Brooks-Gunn, 2003).

## STUDIES THAT FIND THAT “QUALITY DOESN’T MATTER”

Sandra Scarr, has concluded, on the basis of several studies (Chin-Quee & Scarr, 1994; Deater-Deckard, Pinkerton & Scarr, 1996), that variations in the quality of child care have no substantial short- or long-term effects on children. She has written “[w]idely varying qualities of child care have been shown to have only small effects on children’s concurrent development and no demonstrated long term impact, except for disadvantaged children.” (Scarr, 1998, p. 95). These surprising findings may be explained by the relatively poor data on quality collected in these particular studies. Only one measure of quality was collected during the pre-school years of each child, even though the typical child switched child care arrangements fairly frequently. This relatively poor measure of child care quality was not significant in explaining children’s academic performance in school (see Vandell & Wolfe, 2000, pp. 27–29, for a discussion).

## SUMMARY OF THE ARGUMENTS

Non-parental child care is now second only to the family as an environment in which the early development of children unfolds. It is often the setting in which children first learn to interact with other children on a sustained basis, first interact with children from other cultures, establish bonds with adults other than their parents, and receive language stimulus outside the family context. The positive or negative impacts of child care on children are of extraordinary importance to children, families, and society as a whole.

Those who oppose public spending on child care argue that child care is bad for children and that extra money spent on child care is wasted because good child care is no better than bad child care. We respond to these arguments in the following ways:

- We already know that a child’s early years in school are the most influential school years. We should draw lessons from the increasing volume of evidence that the pre-school years are as important or more important in establishing the child’s course of early development and learning.
- Head Start enrolls over 800,000 low-income children each year in the U.S. in part-time pre-school programs at age 3 and 4. The best evidence finds strong positive effects on language and school performance through Grade 5 for white children. Initial positive effects on language abilities that disappear amongst black children by Grade 5 are because of the poor quality public schools they attend. The strong positive effects are found to continue for at least 20 years as children grow up affecting high school completion and enrolment in college.
- The Carolina Abecedarian experiment provided full-day enriched child care from infancy through age 5 to children from high-risk, low-income families. The positive effects on children’s cognitive abilities, schooling, future earnings, improved health, and the increased earnings of their families delivered benefits up to four times higher than the costs of this intensive program.

- The large and pathbreaking study by the National Institute for Child Health and Human Development (NICHD) has found that good quality non-parental care generally has positive language and cognitive effects on children from all backgrounds up to and including age 3 (the study is still continuing). The message is twofold. First, quality of child care matters—to virtually all developmental outcomes and no matter what the child’s situation or background. Second, good quality child care together with parental care at home is better than simply parental care on its own. Of course, the nature of a parent’s care for the child (sensitive and supportive, or not) matters more to the child’s development. And good quality child care can only partially offset the negative effects of poor family functioning. But the supplementary developmental effects of good quality child care are positive and important given the prevalence of child care use in today’s world.
- The recent comprehensive review of research on child development by a committee of experts set up by the American National Research Council and Institute of Medicine (*Neurons to neighbourhoods: The science of early childhood development*) finds that high quality child care “is associated with outcomes that all parents want to see in their children, ranging from co-operation with adults, to the ability to initiate and sustain positive exchanges with peers, to early competence in math and reading.”
- There are a number of studies that may appear to contradict these conclusions about the strongly positive cognitive and social effects of good quality early childhood care and education on children from all backgrounds. Most of them, when looked at more closely are found not to have the appropriate data to make a judgement about the effects of child care quality. Many have information about child care use but are unable to distinguish good from bad quality care. Others have information about quality but only from a single point in time throughout the child’s entire pre-school experience. There are also methodological or interpretation problems with the findings that the initial positive cognitive impacts of child care “fade out” over time.
- The overall message is not that good quality early childhood care and education is a silver bullet that can cure all problems. Family factors are more important than child care: a good, caring, supportive family situation will have decisive and positive developmental impacts on a child. However, family situations are complex and difficult to alter with public policy; extra income has only marginal effects. It is possible to radically improve the typical quality of non-parental child care situations using public policy, and the evidence shows that this would have strong positive effects on the lives of most children.