4
Comprehensive Child Development Program (CCDP)

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September 2011

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Welfare Reform Academy
www.welfareacademy.org

Part of a forthcoming volume
Assessments of Twenty-Six Early Childhood Evaluations
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4 Comprehensive Child Development Program (CCDP)

The Comprehensive Child Development Program (CCDP), which operated in twenty-four sites between 1990 and 1995, was a five-year demonstration program created to serve “infants and young children from families who have incomes below the poverty line and who, because of environmental, health, or other factors, need intensive and comprehensive supportive services to enhance their development.” The CCDP was designed as a “two-generation” program, based on the assumption that well-coordinated services to both parents and children are important in enhancing the growth and development of young children. As it was essentially a parent-focused program of case-managed services plus parent education, the CCDP might best be considered a parenting education and family case management program rather than an early childhood intervention program.

Robert St. Pierre, Jean Layzer, Barbara Goodson, and Lawrence Bernstein, researchers at Abt Associates, Inc. (the “Abt team”), conducted a random assignment evaluation of the CCDP in twenty-one sites representing many regions of the country and a mix of both urban and rural sites. The randomization took place in 1990 and the families were followed for five years after randomization. The evaluation appears to have been carried out with considerable care, and the program was implemented reasonably well, although the scope and quality of services remains a question. The intervention, which cost about $18,200 per family per year (in 2005 dollars), produced virtually no meaningful effects on a range of outcomes. As a result, it is likely that the programmatic approach tested or services offered are not effective in improving long-term educational, social, and economic outcomes for disadvantaged children.

Program Design

Program group. The CCDP targeted poor families with a pregnant woman or a child under age one. The intervention focused on the period between the child’s birth and age five. Among families enrolled in the CCDP, 43 percent were African American, 26 percent were white, and 26 percent were Hispanic. Thirty-five percent of the mothers were teenagers when they first gave birth. At the time of enrollment, 44 percent had annual household incomes below

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1Public Law 100-297, Part E, Sec. 2502.
$5,000 and 51 percent of the mothers had not graduated high school.²

Services. A major premise of the CCDP was that it would be more effective if services were broadly focused on the family as a whole, rather than either the mother or the child.³ The CCDP provided four main services: case management (through home visits); parenting education; developmentally appropriate early childhood education; and referral to community-based services, such as adult literacy, vocational training, and job training.

Thirty- to ninety-minute home visits were conducted biweekly to assess family needs, prepare a family service plan, counsel parents, refer participants to services, and provide early childhood education to children up to age three. (As described below, some observers have raised serious questions about the scope and quality of services.) Case managers also helped families resolve problems such as domestic violence, lack of adequate housing, and substance abuse. The program discouraged parents from using center-based child care until age three, and offered an optional center-based program for children ages three to five.⁴ This approach was based on the assumption that the most effective way to help young children is to improve parenting skills, rather than to focus on providing educational services for the child. Because of its focus on parents, the CCDP might best be considered not an early childhood intervention program, but rather a parenting education and family case management program.

The Evaluation. The Abt team conducted a random assignment evaluation in twenty-one of twenty-four CCDP sites between 1990 and 1995. Eligible families were recruited from prenatal clinics, hospitals, other programs, or through door-to-door recruiting. In 1990, a total of 4,410 families were randomly assigned (2,213 to the CCDP and 2,197 to a control group) and followed for five years.

Major Findings

The intervention, which cost approximately $18,230 (in 2005 dollars) per family per year,

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⁴CCDP children received an average of twenty-eight hours of center-based care per month from birth to age three and forty-five hours per month from ages three to five.
produced virtually no meaningful effects on a range of outcomes. 5

Cognitive. Children’s cognitive functioning was assessed using three standardized tests. At age two, using the Bayley Scales of Infant Development were administered, the Abt team found that children in the program group had statistically significantly higher average IQ scores, but the difference was only two points. When the children were ages three, four, and five, additional cognitive tests were administered (Peabody Picture Vocabulary Test and Kaufman Achievement Battery for Children), and there were no statistically significant differences between the program and control group.

School readiness/performance. Data apparently either not collected or not reported.

Socioemotional development. The CCDP had no statistically significant effects on the number of children’s social-emotional problems (as reported by parents on the Achenbach Child Behavior Checklist) or on their adaptive social behavior skills (as reported on the Adaptive Behavior Inventory). There was a statistically significant effect on the Development Checklist when the children were five years old, but the impact was so small that it was not considered educationally meaningful.

Health. The CCDP had no statistically significant effects on measures of children’s health, including child mortality and receipt of preventive medical or dental services. There were also no impacts on a range of birth outcomes for subsequent births.

Behavior. See socioemotional development above.

Crime/delinquency. Data apparently either not collected or not reported.

Early/nonmarital births. Data apparently either not collected or not reported.

Economic outcomes. Data apparently either not collected or not reported.

Effects on parents. Most data on parent outcomes were based on interviews with parents, but some measures of parenting behavior were obtained through direct observation, including the Home Observation for Measurement of the Environment Inventory. The data show no impacts from CCDP participation on parenting attitudes and behavior (including their attitudes toward child rearing, parent-child interactions, and pregnancy behaviors) or on the home environment as it relates to children’s cognitive stimulation. 6 Similarly, no impacts were found.


6This is reflected, in part, in the finding of no difference in birth outcomes for children born after the focus child.
on mother’s employment, educational attainment, welfare receipt, or household income.

**Benefit-cost findings.** The CCDP cost about $273 million over five years, an average $18,230 per family per year and about $54,700 total for each family (in 2005 dollars, based on an average length of participation of over three years). The cost of the impact evaluation was about $14 million (in 2005 dollars). St. Pierre and his colleagues concluded, “Given the lack of an intensive early childhood program and the lack of short-term or medium-term effects in CCDP, there is no reason to hypothesize long-term positive effects for children who participated in CCDP.” It is therefore unlikely that there will be CCDP-related savings that would produce a positive benefit-cost ratio.

**Overall Assessment**

The CCDP evaluation is based on a randomized experiment conducted by the Abt team in twenty-one sites representing many regions of the country and a mix of both urban and rural sites. The evaluation appears to have been carried out well and has a large sample size, especially for a randomized experiment.

**Program theory.** The underlying premise of CCDP was that the intervention would be more effective if services were broadly focused on the family as a whole, rather than on either the mother or the child. The Abt team measured outcomes for both parents and children; thus, the evaluation was appropriate within the context of the program’s theory.

**Program implementation.** CCDP grantees went through a competitive process “to ensure that the best groups in the nation were selected to run CCDP projects.” Selection criteria included past experience with similar projects and evidence of linkages with other service providers.

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9St.Pierre et al., 1997, EX-12.


providers, but nevertheless, many had no prior experience. In addition, many of the projects were given special start-up funds and a planning period prior to implementation.

The Abt team carefully monitored the implementation of the CCDP projects. According to the implementation study, 82 percent of participating families enrolled in the CCDP for at least one year and 58 percent enrolled for three or more years. The Abt team also reported that CCDP projects were successful in coordinating their efforts with other service agencies and provided a wide range of services to many families. Overall, the Abt team concludes that “CCDP appears to have been well-implemented at the local level.”

In a separate assessment, however, Walter Gilliam, a child psychologist at Yale University’s Child Study Center, was not as confident as the Abt team in the success of the program’s implementation. Gilliam and his colleagues contend that despite its comprehensive intent, the CCDP was implemented mainly as a case management program directed primarily toward the needs of parents, rather than children. They summarize: “In essence, CCDP was not implemented as a unique, clearly articulated early intervention program. Rather, it was a service brokerage system designed to identify specific family needs and then refer out for services, particularly as these identified service needs related to the government mandate for economic self-sufficiency.” They also noted that there was considerable variability across sites in the delivery of services.

Assessing the randomization. Although Abt was responsible for the impact evaluation, it was not selected as the evaluator until after the implementation phase of the CCDP. CSR, Inc., the implementation contractor, was responsible for the random assignment of 4,410 families. CSR oversaw random assignment in some sites, but in others the program operators themselves carried out the task, raising some concern about the integrity of the randomization process. A comparison of twelve baseline characteristics across twenty-one sites revealed twenty-three statistically significant differences ($p<.05$), compared with thirteen that would have been expected by chance alone.

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12St.Pierre et al., 1997, 2–16.


14Gilliam et al., 2000, 44–45.

Abt carried out its evaluation in twenty-one of the twenty-four original CCDP project sites. Three projects were excluded: one was unable to conduct random assignment, a second failed to maintain accurate records about how families were recruited and assigned, and a third joined the CCDP a year late.

**Assessing statistical controls in experimental and nonexperimental evaluations.** The evaluation was based on random assignment, so selection bias should not be a serious problem. Moreover, regression analysis was used to control for any differences in baseline child and family characteristics that remained after random assignment. (Impacts were estimated for each site and then averaged to derive an overall estimate.)

**Sample size.** The sample of 3,961 families is large enough to enable the researchers to detect most meaningful impacts overall. Although individual site sample sizes were much smaller, leading to less precise site-specific estimates, site sample sizes were about as large as the research populations in many model early childhood education programs.

**Attrition.** The initial sample of 4,410 families was restricted to families who were tested or interviewed at least once, reducing the sample to 3,961 families, or by about 10 percent. The Abt team tested for the possibility of differential attrition by comparing program and control groups in each of the twenty-one sites on seven baseline characteristics. They found eleven statistically significant differences, exceeding the seven that would be expected by chance. They concluded that the two groups were sufficiently comparable for purposes of the evaluation. Moreover, they controlled for these and other baseline characteristics to minimize any potential bias. Nevertheless, differential attrition makes it more difficult to assess problems related to potential selection bias and attrition.

Subsequent attrition was relatively low in most years. When the children were age three, for example, 80 percent of CCDP mothers and 84 percent of control mothers completed interviews. When the children were age five, 74 percent of the program families and 78 percent of control families were interviewed. The Abt team again conducted tests to detect any differential attrition across the groups by comparing seven baseline characteristics. The age five follow-up sample showed nine of a possible 147 statistically significant differences, slightly more than the seven that would be expected by chance. However, the differences that did exist did not systematically favor either group, so the Abt team deemed the groups to be statistically comparable.

With respect to other outcomes, such as the PPVT, which required testing, attrition was a more serious problem. For example, at age five, only 63 percent of the 4,410 children who were
randomly assigned took the PPVT. (At ages three and four, the percent with scores was even lower, just 62 percent and 56 percent, respectively.) Also, the Abt team did not examine whether the two groups were statistically comparable, as they did with the parent interview.

**Data collection.** The data collection relied on a wide range of tests and surveys. The data sources were appropriate for the questions being studied and were relatively complete. The use of administrative data, however, was limited. The confidence surrounding some of the survey findings, particularly those dealing with employment, welfare use, and crime could have been strengthened by obtaining data from various administrative services, such as Unemployment Insurance records for employment and earnings.

**Measurement issues.** All data on children and families were collected through tests of children and in-person interviews with mothers. The Abt team used trained staff to administer interviews and tests. (The tests used to measure children’s cognitive development were administered individually by trained testers.) The data on social and emotional behavior came from parental reports.

**Generalizability.** Although the CCDP sample was not nationally representative, the sites captured considerable national variation in the characteristics of participating families and the areas in which they live. The findings should be broadly representative of a program like the CCDP. As Goodson and her colleagues explain:

> a 21 site study that represents urban and rural areas as well as different cultural and language groups offers state-of-the-art external validity for social science experiments. Certainly, the external validity of the 21-site CCDP study is far better than that for eight-site Infant Health and Development Program, and many magnitudes greater than that offered by the single-site Perry Preschool project, both of which have been cited innumerable times in the research literature.\(^{17}\)

CCDP grantees went through a competitive process “to ensure that the best groups in the nation were selected to run CCDP projects.”\(^{18}\) Selection criteria included past experience with similar projects and evidence of linkages with other service providers, but nevertheless, many had no prior experience. In addition, many of the projects were given special start-up funds and a planning period prior to implementation. Had the projects produced statistically significant

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findings, therefore, it could have been argued that they might not be representative of what average grantees could produce.\textsuperscript{19}

The real danger is that the CCDP results will be overgeneralized to early intervention programs (including two-generation programs) that use a different mix of services or approaches. As Walter Gilliam and his colleagues caution:

Although it may be tempting to generalize the results of the CCDP evaluation to two-generation programs that provide direct service to children and their families, the findings may be applied more accurately to other case-management systems of care. One may be able to argue for the applicability of the CCDP findings to other primarily adult-focused case-management programs, but clearly not child-focused, or even two-generation-focused programs that provide direct services.\textsuperscript{20}

Gilliam’s concerns regarding program implementation, discussed earlier, could also mean that program impacts were understated relative to what they would have been had the program been implemented more successfully.

\textbf{Replication.} The twenty-one sites represent a form of replication. Only one site, however, had statistically significant impacts on its participants. Otherwise, there has been no actual replication. Some observers, however, would consider programs such as MDRC’s New Chance project\textsuperscript{21} and Irving Harris’s Beethoven Project\textsuperscript{22} as being in the same category of programs, although they both provided more in the way of direct services with similarly disappointing results.

\textbf{Evaluator’s description of findings.} The Abt team concluded that the program was implemented as designed, calling into question “the theory and assumptions underlying the

\textsuperscript{19}Walter Gilliam and his colleagues noted, “… it is not clear that these sites truly represent the United States, as they were selected based on their community’s ability to deliver a variety of services. Therefore, it is not certain that the evaluative findings from these sites are applicable to communities where fewer services and case management resources are available.” See Gilliam et al., 2000, 51.

\textsuperscript{20}Goodson et al., 2000b, 51–52.


program.” In particular, they find that “improving outcomes for children through their parents is not a successful strategy.” They suggest that interventions, such as Early Head Start, should focus on providing services directly to children. Given the questions raised by others about the duration of participation and intensity of services, this negative conclusion may be too strong, however.

There are a number of other possible reasons why the CCDP had no statistically significant or measurable educational effects on a range of children’s and parents’ outcomes. Gilliam and his colleagues raise several possibilities.

First, they note that the high dropout rate meant that only one-third of CCDP families received the full five years of the program. The Abt team noted that most social programs have similar, or even higher, dropout rates. They also performed “dosage analyses” that indicated that the amount of time spent in the program did not make an important difference. Such “dosage analyses” rely on statistical modeling and are not as strong as program-control comparisons, nevertheless, the findings are suggestive.

Second, Gilliam and colleagues contend that—because the results were based on the first cohort of children that participated in the program—the impacts were not representative of a mature program, but rather one that was experiencing start-up problems. They note that as the programs gained experience, the intensity of services increased. Goodson and her colleagues responded that the second cohort of CCDP projects experienced similar dropout rates.

Third, many families in the control group were referred to and received similar services as the program group. The Abt team acknowledged that for some services, the utilization rates were comparable. They pointed out, however, that the CCDP families were more likely to receive two key services—case management and parenting education—but concluded that these services were simply ineffective as provided.

**Evaluator’s independence.** The CCDP’s impact was evaluated by an independent evaluator (Abt Associates Inc.), as was its process evaluation and a substantial portion of its randomization (CSR, Inc.).

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24Goodson et al., 2000a, 33.
26Goodson et al., 2000b, 63.
27Goodson et al., 2000b, 63.
Statistical significance/confidence intervals. Statistical significance was measured and reported at the 1 percent, 5 percent, and 10 percent levels.

Effect sizes. Most effect sizes were very small, falling between 0.07 and 0.16 standard deviations (SD), and were not considered “meaningful” by the Abt team. For instance, the Abt team notes that effect sizes of about 0.10 SD “are not educationally meaningful.” For one CCDP site (Site 2), there was a statistically significant impact on the PPVT, with an effect size of 0.63 SD, which they describe as “moderately large.”(See Appendix 1 for a further discussion of effect sizes and their interpretation.)

Sustained effects. The evaluation did not examine post-intervention impacts.

Benefit-cost analysis. Apparently not performed.

Cost-effectiveness analysis. Apparently not performed.

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Commentary

Robert G. St.Pierre*

The volume’s descriptions of CCDP, the associated evaluation, and its findings are well-done and accurate. Hence, this commentary focuses on the theory underlying CCDP and the interpretation of evaluation findings.

What Was CCDP?

When speaking of CCDP, we need a shared understanding of what the program was intended to do. The title “Comprehensive Child Development Program” leads us to believe that the intent of the program was to help children, and that the kind of help would be broad and comprehensive in nature. And that is exactly correct. The long-run aim of CCDP was to enhance the development of children, as well as other household members, from low-income families, by ensuring that those families received all of the social, educational, and health services that they needed; when they were needed; for as long as they were needed.

The problem that CCDP was designed to solve was that the human service system is disorganized and fragmented, and hence that low-income families have difficulty accessing the human services to which they are entitled. Further, CCDP’s organizers believed that, to be maximally effective, human services need to reach low-income families early, must be comprehensive in nature, intensive, and sustained over a significant period of time.¹ The proposed solution to the problem was CCDP, a demonstration program which provided “a case management approach for effectively brokering services between families and service agencies; a child development and parent education and training component for enhancing individual and joint growth of children and parents; and a local advisory board.”²

Thus, CCDP’s founders had the opinion that the best way to help children from low-income families was to provide case management services and parenting education to the mothers of those children. The hope was that proper implementation of these two key, basic services would (1) help families obtain the entire range of social, educational, and health services that they needed and to which they were entitled; and (2) enhance child development by

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providing parenting education so that the child’s mother could function as the child’s first teacher, as well as through enhanced family functioning acquired through better employment and household income, increased adult literacy, better health for all family members, and increased rates of child participation in early education programs.

Why Didn’t CCDP Have Any Impacts on Children or Families?

The data from the national CCDP evaluation show that CCDP had no measurable impacts. Why? Because the theory underlying the program was incorrect. Case management services provided to families in the hope that this would help them obtain needed services, and parenting education provided to mothers in the hope that this would enhance child development, are not the best strategies either for helping mothers from low-income families—or their children.

Critics of the evaluation grope for other ways to explain CCDP’s lack of effectiveness. As noted in Besharov and his colleagues’ description of the CCDP study, Gilliam and his colleagues raise some possibilities. They cite the evaluation finding that only one-third of the families participated for the intended five-year period of treatment and suggest that if this could be improved the program might be more effective. First, the extent to which families participate in any social program is the most clear-cut measure of its acceptability as an intervention. If the intended beneficiaries of a social program do not want to participate, then it is pretty clear that the program cannot be effective. Second, let’s be reasonable. Five years is a long period of time to have a case manager showing up at your door every week to remind you of things you should be doing, and to have someone appearing at your home every couple of weeks and telling you how to be a better parent. In retrospect, families who enrolled in CCDP took as much from it as they wanted. It turned out that many families did not want what CCDP was offering.

Gilliam and his colleagues also point out that participating in CCDP did not lead families to use social services any differently than they would have without CCDP. This is correct. Data from the national evaluation show that, on the whole, control group families availed themselves

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of social and educational services at roughly the same rate as CCDP families. However, it is crucial to understand that CCDP families were much more likely than control group families to have the services of a case manager and to receive parenting education. Thus, they did receive the two key services that formed the basis of the CCDP treatment. The fact that they did not differ from control group families in the extent to which they received other social services (for example, early childhood education, adult education, health care, etc.) is not an indication that the treatment was not implemented (as Gilliam and his colleagues conclude), but rather that CCDP’s approach of using case managers was no more effective at helping low-income families obtain social services than what control group families were able to accomplish for themselves.

Gilliam and his colleagues are correct in their conclusion that the results of CCDP ought to be applied to case management systems and parenting education programs, and not to programs that provide early childhood education services directly to children. However, Besharov and his colleagues’ closing conclusion, that CCDP’s impacts might have been better if the program had been implemented more successfully, doesn’t strike me as appropriate. [Editors’ note: We agree with the author, and feel that the chapter reflects this view.]

In this short commentary I have argued that CCDP was implemented exactly as planned. The fact that most families participated for less than the planned five-year period of time is not an indicator of poor implementation. Instead, it is an outcome measure that tells us that families simply did not want to be part of CCDP for five years. Nor is the fact that CCDP families received about the same level of social, health, and educational services as control group families an indicator of poor implementation. CCDP families did receive the intended treatment of frequent and intensive case management and parenting education. The fact that these two key services did not lead to differences in the use of other human services points to the faulty logic underlying the CCDP model, not to a failure of implementation.

The main lesson learned from the CCDP demonstration and evaluation is that providing case management and parenting education services to mothers from low-income families is not an effective way to help either the mothers or the children in those families. While this means that we can set aside this one theory of how to best help mothers and their children, it does not mean that we should give up on the approach of trying to help children by first helping their mothers. CCDP tested and showed the ineffectiveness of one approach. But many others might be tried and subjected to the same kind of rigorous test that CCDP provided.

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