

Two-generation programs

5.1 INTRODUCTION

As discussed in Chapter 2, children's development may be compromised by a variety of factors, some of which tend to cluster, for example, low parental levels of education, family poverty, parental stress, parental depression and its often-associated negative parenting practices, and lack of adequate levels of linguistic and/or cognitive stimulation in the home. Two-generation programs attempt to address these key factors through a multi-pronged approach that involves:

- A group program for children intended to promote child development and school readiness.
- A parenting education component intended to improve parents' understanding of child development and their parenting skills.
- An adult education, literacy, and/or job skills and training component intended to improve the parent's employability and, through this, the family's financial situation.

Typically, two-generation programs also include some level of counselling to assist parents to identify their needs and access community resources, and may include support services such as transportation.

Table 5.1 provides a summary of the components and delivery approach in four representative two-generation programs that have been broadly implemented in the United States. The table illustrates that while all four have the same three basic components, they vary considerably in their programming approach. Many two-generation programs rely heavily on obtaining service components from other community agencies, particularly child care which is often provided through a Head Start centre.

Table 5.2 summarizes the findings from evaluation studies for each of the programs. These findings, which are consistent across all four programs and with findings from evaluations of other two-generation programs,¹ can be summarized as follows:

- Two-generation programs increase participation of mothers and children in a variety of health and social services and may sometimes have a beneficial effect on parenting practices and/or the home as a learning environment but this is not accompanied by a long-term benefit to children's development.
- Two-generation programs often have a significant effect on attainment of a General Educational Development (GED) certificate, which is accepted in the U.S. as equivalent to high school graduation but this is not accompanied by improvement in literacy, employment status, or family income.
- Participation in a two-generation program, with the parental support it provides through counselling and case management, is not associated with improvement in maternal self-esteem or reduction in maternal levels of depression or stress.

A potential strength of two-generation programs is their recognition of the multiple threats to children's development and their attempt to address a comprehensive range of risk factors simultaneously. However, two-generation programs have not lived up to their assumed promise. On the basis of research, it has become apparent that the assumption that services provided to the parents will improve at-risk children's development is flawed. As noted in Chapter 4, many child development experts have concluded that greater benefits for at-risk children's development occur when services are provided directly to the children, such as a developmental group experience, rather than from indirect approaches that focus on services for parents.²

5.2 Four representative two-generation programs

This section provides general information about four two-generation programs that have been widely implemented in the United States and the findings from evaluations of each. Table 5.1 provides information about the programs and Table 5.2 summarizes the evaluation findings.

5.2a *Avance Parent-Child Education Program* ³

Background

The Avance program has two stages. The first, which lasts for nine months, consists of three hour classes once a week for the mother covering topics such as child development, parenting skills, nutrition, childhood illnesses, and community resources. Transportation is provided to facilitate participation. The group classes are supplemented by monthly home visits and the provision of ancillary services such as information about and referral to other specific community services. While the mothers are attending their group classes, the children attend a three hour educational group program provided by Avance staff. The second stage, which is not time-limited, focuses on enhancing the parent's employability and does not include a children's program. Mothers are encouraged to take English as a Second Language (ESL) courses, if needed, to attend classes that will prepare them for the General Equivalency Diploma (GED), which is accepted by many U.S. employers as high school graduation equivalency, and/or to attend other classes or job training courses.

Research methodology

An evaluation of Avance has been conducted at two sites. Random assignment to the program and the control group was used at one site and a matched-group design at the other. No information is provided about the extent to which the two groups in the matched-group design were similar on key variables. Members of both comparison groups were not allowed to participate in any Avance program during the course of the evaluation but were free to, and did, avail themselves of similar services offered by other community agencies. This reality means, as it does for all two-generation program evaluations, that it was impossible to have the ideal design whereby the comparison group did not receive any of the types of services available to the program group. Data were collected on both the program and comparison groups at three points: at the beginning of the evaluation, at the end of the first year, and at the end of the second year.

Findings

During the program, use of other community services was higher among the program group, thus attesting to the success of the case management provided by Avance in terms of increasing service utilization. At the end of both the first and second years, the program participants in each site obtained significantly higher scores on the *Home Observation for Measurement of the Environment* (HOME) scale ⁴ than did mothers in the comparison group. They also obtained higher scores on positive stimulation of and interaction with their child as assessed during a videotaped session that was coded using a standard procedure, and on a

TABLE 5.1: CHARACTERISTICS OF FOUR REPRESENTATIVE TWO-GENERATION PROGRAMS

Program	Child age at entry	Intended program duration	Child-focused component	Parenting education component	Adult education, job skills, job training and parent support component
Avance Parent-Child Education Program (St. Pierre, Layzer and Barnes, 1998; Walker et al, 1995)	Birth to two years, exit age three	One or two years depending on parental need	Three hours a week group program provided by Avance staff for nine months (approximately 100 hours in total)	<ol style="list-style-type: none"> three hours a week group classes for nine months (approximately 100 hours in total) Monthly home visit for nine months 	<p>Basic literacy classes, English as a Second Language (ESL), and/or job training depending on the individual's needs.</p> <p>Referral to other community services</p>
Comprehensive Child Development Program (Goodson et al., 2000a; Gilliam et al., 2000)	Birth, exit age six.	Five years (from the child's birth through age five)	<p>Centre-based care between age 3 - 5, often using Head Start programs. Average attendance two days a week (approximately 516 hours in total for each of two years)</p> <p>Periodic health and development screening with referral to specialist if indicated</p>	<ol style="list-style-type: none"> Bi-weekly home visits, lasting on average for one hour, by an ECCE specialist between child's birth and age three (approximately 78 hours in total) Periodic group parenting classes and workshops 	<p>Bi-weekly 30-90-minute home visits by a case manager who assessed parent needs, referred families to other services, and at times brokered specific services for parent or child, e.g. adult literacy education, vocational training, employment counselling, and/or child care.</p>

Program	Child age at entry	Intended program duration	Child-focused component	Parenting education component	Adult education, job skills, job training and parent support component
The Even Start Family Literacy Program (St. Pierre and Swartz, 1995; St. Pierre, Swartz, Murray and Deck, 1996)	Any age under age eight, exit age eight. Average entry age three or four	Maximum of eight years (from birth through age seven), varies by site	Most projects obtain centre-based services from Head Start (65%) or preschools operated by school boards (41%). National average received is total of 232 hours, median of 102 hours	Home visits or group parent education sessions, depending on project, usually delivered by a case manager. Intensity also varies across projects. National average received is 58 hours over a seven-month period, median of 29 hours.	ESL classes, preparation for high school equivalent certificate, job training, job search training, counselling. Mix of available services and intensity varies depending on site. National average received is 107 hours, median 41 hours. Some sites use case managers to coordinate services
New Chance (Quint and Egeland, 1995; Quint, Bos and Polit, 1997)	Usually age three or four	18 months	Centre child care from other agencies, or family child care, or relative care. Duration depends on what parent requires to complete her program	Classes incorporated into the educational program provided for the mothers. Average amount of parenting education, two - four hours a week for the first five months (for a total of approximately 80 hours). Monthly supervised parent-child interaction session with instructional feedback to parent.	1. Full-day, five days a week program providing literacy classes, health counselling, life skills training, e.g. budgeting, etc. Typically lasts seven months. 2. Job skills training and work internships. 3. Bi-weekly individual meetings for the duration of participation to provide counselling and case management.

questionnaire to assess their sense of parental effectiveness. However, while there was a clear and positive effect on parenting behaviour and the home environment, no difference was found between children in the program and the comparison groups on standard measures of child development nor on mothers' report of child behaviour. At the end of the second year, a significantly higher proportion of mothers from the program group in both sites were in the process of furthering their education by attending ESL classes, participating in GED (high school equivalency diploma) preparation classes or taking job training. However, no program effect was found for either level of maternal depression or maternal self-esteem.

5.2b The Comprehensive Child Development Program ⁵

Background

This time-limited demonstration project was funded in 1990 by the U.S. Department of Health and Human Resources and involved 34 sites across a number of different states. To be eligible for CCDP, a family had to: (1) have an income at or below the Federal poverty guidelines, and (2) include a pregnant woman or a child under age one.

With the exception of case management and parenting education, CCDP provided its program components indirectly by linking parents with other services such as child care, adult literacy courses, employment counselling, and job training. The CCDP case managers conducted bi-weekly 30 to 90 minute home visits which involved assessing family needs, periodic developmental screening of the child, counselling parents, and making a record of the services the family had received since the previous visit. Parent education was provided through bi-weekly home visits which lasted on average for one hour. The home visitor, who often had an ECCE background, suggested activities for the parent to do with the child and provided advice on how to implement them. Additional parenting education was provided through supplementary group classes and workshops.

Research methodology

Twenty-one of the 34 sites were included in the evaluation which randomly assigned families to a program group (n = 2,213) and a control group (n = 2,197). Sites were chosen to represent urban as well as rural areas and different cultural groups. Control group families could not receive CCDP services during the five year program period but were free to, and did, use other community services.

Assessments of child and parent functioning were done annually at the child's first, second, third, fourth and fifth birthdays. Children were assessed through interviews with the child's primary caregiver concerning the child's health and behaviour, and through standard tests to

measure level of cognitive functioning each year and also through tests of language skills and school readiness skills at ages three, four and five. Parent outcomes were assessed through parent self-report and rating of parent behaviour during a structured parent-child interaction situation. The *Home Observation for Measurement of the Environment* (HOME) survey ⁶ was conducted when the child was 18 or 24 months and again at age 36 months.

Findings

The only difference found in parenting outcomes at the fifth year was related to the parent's belief in corporal punishment with program parents believing less strongly in it. There were no differences between the program and control groups in beliefs about child rearing, in empathy for the child, in observed parent behaviour during structured parent-child interactions, or on the HOME scale.

CCDP children showed a slight but statistically significant advantage over the control group children at age two years in terms of their overall development as measured by the *Bayley Scales of Infant Development* but no between-group differences in development were found in subsequent years. No statistical difference was found for the two groups at any age for language or school readiness skills or reported child behaviour problems.

By the end of the five-year period, program parents were significantly more likely to have participated in some form of academic, vocational or job training. However, there was no between-group difference on educational attainment, e.g. completion of high school, receipt of a GED (high school equivalency diploma), or receipt of a vocational or other credential. Nor were there differences in employment status, rates of employment, or annual family income (program group = \$12,005, control group = \$11,614).

The CCDP participants were expected to participate in the full five years of the project, but many did not. The evaluation used data from all the families originally assigned to the program group that it could locate regardless of whether they had remained in the program for the full five years. The rationale for so-doing was that the families participated as fully and for as long as they wished and therefore each family received what it wanted or was prepared or able to take from the program. Recognizing that this strategy might underestimate the effects of CCDP, the researchers analysed the relationship between program impacts and the amount of participation. They report that while the length of time a family was enrolled in CCDP was associated with a statistically significant difference in some areas, the differences were not large enough to be meaningful from an educational or practical standpoint.

5.2c *The Even Start Family Literacy Program* ⁷

Background

In 1994, there were almost 500 Even Start projects across the U.S. serving about 30,000 families. Data collected from 1989/90 through the 1992/93 program years indicate that 75% of the participating parents had not completed high school and 49% reported government social assistance as their primary source of income.

Every project is required by federal legislation to provide participating families with an integrated three-part program consisting of: (1) early childhood education, (2) parenting education, and (3) adult literacy or basic skills training. ⁸ The delivery model, intensity and duration of the various components is left to the discretion of the local project. ⁹ Under the terms of the funding agreement, projects are prohibited from using their funds to duplicate services that can be obtained locally. Instead, they are required to use existing services, such as Head Start child care centres, and reserve their own funds to provide services not available from another local source.¹⁰ Some programs deliver parent education through home visits while others use group sessions. While all Even Start programs provide an adult education program, local projects vary in the degree to which they include a job training, counselling, and search component. ¹¹ Case managers conduct needs assessments, maintain on-going contact with a caseload of families, try to ensure that participating families attend programs, and may be responsible for some services such as counselling.¹²

Research methodology

The effectiveness of Even Start has been assessed by an in-depth longitudinal study of five projects where, in the group as a whole, 179 families were randomly assigned to be in Even Start (n = 94) or a control group (n = 85). The collapsing of outcome data from five projects is problematic given the considerable program variation known to exist across sites. Data were obtained from adults and children in both groups at the time of entry, at which time most of the children were age three or four, at about nine months and 18 months after intake, and again at approximately 54 months after intake. At the time of this final follow-up, the children were between age six and eight and in grade one or two. While not all the children who had participated in the research earlier could be located, the researchers report that statistical tests indicated that at the 54 month follow-up the children and families in both the Even Start and the control groups continued to be statistically comparable on key characteristics. ¹³ The families were assessed at both the nine and 18 month points even if the family had dropped out of Even Start or a control group family had obtained similar services from another source. ¹⁴

Findings

The evaluation of the parent education component examined several aspects of the home environment using the *Home Observation for Measurement of the Environment* (HOME) scale¹⁵ plus a measure of parent-child reading interactions based on observation using a pre-coded rating form. The only between-group difference at either nine or 18 months after intake was the greater number of reading materials in the homes of the Even Start families.

At nine months after intake, when most of the children were age four, those who had been in Even Start obtained significantly higher scores on a measure of school readiness than did the control group children, but there was no difference between the two groups at the 18 month point. At this time, many of the control group children had enrolled in preschool or kindergarten and had caught up with the program group. There was no difference between the two groups of children on the *Peabody Picture Vocabulary Test*¹⁶ at either the nine or 18 month point. At 54 months after intake, when the children were in grade one or two, no differences were found between Even Start and control group children in average grade levels for reading, language arts, or mathematics. This held true even when controlling for number of hours of participation in a group program prior to school entry, number of parents' hours in parent education, or children's score on tests of vocabulary or school readiness at the 18 month point.¹⁷ Only a small proportion of the total group of children, 27%, had been given achievement tests. No differences were found between Even Start and control group children who were assessed with the same test. No assessment was made of the children's classroom behaviour, out-of-school behaviour, or social competence.

Among adults who did not have a GED (high school equivalency diploma) at the beginning of the research, 22% of Even Start participants had gained this credential by 18 months after intake in contrast to only 6% in the control group.¹⁸ However, there was no difference between the two groups on reading literacy, employment income, a measure of parental depression, or a measure of parental sense of mastery. No data on parents are reported for the 54 month follow-up.

5.2d New Chance¹⁹

Background

This demonstration project, which operated between 1989 and 1992 in 16 locations across 10 states, targeted mothers age 16 to 22 who:

- Had first given birth at age 19 or younger.
- Were receiving social assistance.

- Did not have a high school diploma.
- Were not pregnant when they entered the program.²⁰

It provided:

- Education and employment-related services intended to assist the participant to become employable.
- Health, life management, and counselling services to address participants' developmental needs and issues.
- Group parent education classes.
- Free child care while the mother participated in program activities either through an on-site program or through financial support for off-site arrangements.²¹

New Chance used a two-phase approach and all 16 sites were required to follow specific guidelines related to the kinds and amounts of services they were to provide. During the first phase, typically several months long, the participants were required to attend classes five days a week from 9 a.m. to 3 p.m. These classes included basic adult education, preparation for the GED (high school equivalency diploma) test, job skills training, information about various possible careers, health education (including family planning), life skills training such as budgeting, and parenting education. In the second phase, typically after the young woman had attained a GED certificate, participants engaged in further job skills training and short-term work "internships" which were required to last for at least the equivalent of six weeks full-time. Free child care was provided while the parent was attending classes, taking job training or doing a work internship. Case management and counselling was provided through individual meetings every two weeks. The phase one classes and basic job skills training were done on-site, and nine of the 16 locations also provided on-site child care.²² Work internships were provided off-site.

Research methodology

The same evaluation methodology was used in each of the 16 sites with eligible young women randomly assigned to a program or a control group. The 16 samples combined resulted in a total of 1,553 program participants and 769 individuals in the control group. Both groups were followed up through personal interviews at 18 and 42 months after the study began and assessment of the children's developmental level was also conducted at the 42 month point. While members of the control group were excluded from services provided by New Chance, they were free to receive similar services from other agencies in the

community and many did so. This, coupled with the high rate of absenteeism and early departures from the program, resulted in a situation where there was little difference in the amount of the various services received by the two groups during the course of the program.²³ However, between the end of the program and the 42 month follow-up, the program group had significantly higher rates of participation in parenting classes, adult basic education/GED preparation classes, and job skills training.²⁴

Findings

Nineteen months after entry the program children were being raised in somewhat more favourable environments as measured by the HOME scale²⁵ but there was no difference between groups at 42 months after starting the program. Children in both groups had similar low scores on a standard measure of school readiness at the 42 month point and at this time women in the program group reported significantly more child behaviour problems than did mothers in the control group. Teachers gave children in both groups similar academic ratings at the 42 month point.²⁶

The findings related to the effects on the mothers were equally disappointing. Forty-two months after entry a significantly higher proportion of women in the program than in the control group had attained a high school diploma or the GED (51.9% and 43.8% respectively). However, there were no differences between the two groups on literacy level, the proportion who had earned a trade license or certificate, in employment rates, or in earned income levels. Over the follow-up period, the two groups also experienced similar rates of pregnancies, births and abortions.²⁷ At the time of initial enrollment in the research project, 53% of the sample (program and comparison groups combined) obtained a score on a standard assessment of depressive symptomatology that indicated risk for a clinical diagnosis of depression. Forty-two months after entry, 44.6% of the program group and 42.5% of the comparison group remained at the same level of risk as measured by the same scale.²⁸

TABLE 5.2: EVALUATION FINDINGS FROM FOUR REPRESENTATIVE TWO-GENERATION PROGRAMS

Program	Initial sample	Final follow-up sample	Effects on Parenting	Effects on Children	Effects on Adults
Advance Parent-Child Education Program (St. Pierre, Layzer and Barnes, 1998; Walker, Rodriguez, Johnson and Cortez, 1995)	E = 207 C = 279	Two years after the program E = 100 C = 213	Score on HOME scale E>C Assessment of quality of parent-child interactions E>C Sense of parental effectiveness E>C	Scores on standard measures of child development and school readiness E = C Maternal report of child's behaviours E = C	In process of furthering their education through GED preparation classes, ESL classes or job training E>C Rating of maternal self-esteem and of maternal depression level E=C
Comprehensive Child Development Program (Goodson, Layzer, St. Pierre, Bernstein and Lopez, 2000a)	E = 2,213 C = 2,197	Five years after program start E = 1,638 C = 1,714	Score on HOME scale E = C Assessment of quality of parent-child interactions E = C Beliefs about child rearing and children's development E = C	Scores on standard measures of child development, language skills, and school readiness E = C Parent report of child behaviour problems E = C	Involvement in some type of academic, vocational or job training E>C Educational status, employment status, dependence on social assistance E = C Family income level E = C
The Even Start Family Literacy Program (Gamse, Conger, Elson and McCarthy, 1997; St Pierre, Swartz, Murray and Deck, 1996)	E = 94 C = 85	54 months after program start E = 65 C = 63	Measures done at 9 and 18 months only Score on HOME scale E = C Assessment of quality of parent-child interactions E = C Parental expectations of the child E = C	General development level E>C at 9 months E = C at 18 months Language skills E = C at 9 and 18 months Grades for language, reading, math at 54 months after program start E = C	Adult measures done at 9 and 18 months only Attainment of GED at 18 month point among adults without this credential E>C (E = 22.4%, C = 5.7%) Literacy level at 9 and 19 months E = C Employment income at 18 months E = C Level of parental depression E = C

Program	Initial Sample	Final follow-up Sample	Effects on parenting	Effects on Children	Effects on Adults
New Chance (Quint, Bos and Polit, 1997)	E = 1,553 C = 769	42 months after program E = 1,401 C = 678	Score on HOME scale E > C at 19 months E = C at 42 months Parent child-rearing attitudes E > C at 19 months E = C at 42 months	School readiness E = C Parent report of child behaviour problems E = C Teacher academic ratings E = C	Attainment of GED E > C (E = 51.9%; C = 43.8%) Attainment of a trade license or certificate E = C Employment rates, earned income level E = C Rates of pregnancies, births or abortions E = C Level of depression or stress E = C

Note: In the above table, E = program group, C = comparison group, differences that are not statistically significant are indicated by E=C, differences that are significantly different at $p < .05$ or better in favour of the program group are indicated by E>C, GED = General Equivalency Diploma. This is accepted in the U.S. as equivalent to a high school diploma.

5.3 Discussion

5.3a *Summary of the research findings*

Theoretically, the three-pronged approach of parenting education, group programs for the children, and assisting parents to become more employable should be very powerful. It not only targets improving children's daily experiences; it also attempts to improve parental self-esteem as a parent and as an earner, and the context of poverty in which the family lives by increasing parental employment level or status. This chapter has reported the findings of well-designed evaluations of four representative two-generation programs with, in the cases of CCDP and New Chance, large sample sizes. In New Chance in particular, the program was intense and supported by bi-weekly individual counselling and case management meetings and free child care.

The findings are consistent across the four programs and with those reported from evaluations of other two-generation programs.²⁹ This consistency enables confidence in the findings reported, which can be summarized as follows:

- Two-generation programs increase participation of mothers and children in a variety of health and social services and may sometimes have a beneficial effect on parenting practices and/or the home as a learning environment but this is not accompanied by a long-term benefit to children's development.
- Two-generation programs often have a significant effect on attainment of a General Educational Development (GED) certificate, which is accepted in the U.S. as equivalent to high school graduation, but this is not accompanied by improvement in literacy, employment status, or family income.
- Participation in a two-generation program, with the parental support it provides through counselling and case management, is not associated with improvement in maternal self-esteem or reduction in maternal levels of depression or stress.

These disappointing findings from an approach that attempts to address the multiple threats to children's development suggest that the feasibility of two-generation programs should be reconsidered.

5. 3b Implementation problems

All the two-generation programs reviewed experienced the following problems: (1) low levels of program intensity, and (2) high absenteeism and high levels of drop-out.

Program intensity

The intensity of a program is determined both by its delivery of a certain amount and frequency of service and by the degree of families' participation in the services offered. Two-generation programs typically provide a relatively small amount of parenting education. In the four representative programs discussed in this chapter, the total ranged from 58 hours spread over seven months to 108 hours over nine months (see Table 5.1). No two-generation program that has been evaluated provided anything close to the full-day, five-days-a-week, child care program over a period of several years provided by the most successful programs for children at risk such as the Abecedarian Project,³⁰ the Milwaukee Project,³¹ and Project CARE.³² These programs all operated on the assumption that the children's home environments were unable to adequately support their optimal development and that substantial amounts of time had to be spent by the children in a more supportive environment in order to make a real difference to their development trajectory. As discussed below, sporadic participation in the parenting education component and early drop-out from the overall program have been a major problem for all two-generation programs. This further reduces the intensity of the program actually received by the parent and child.

Absenteeism and drop-outs

The two-generation programs discussed in this chapter all report problems with high absenteeism and high drop-out rates. The New Chance program evaluation estimated that the average participant who completed the program actually received only about 40% of the service "dosage" they would have received if they had been absent less often.³³ The Avance evaluation reports that 53% of the program group left before the end of the first year. In CCDP, a program intended to last for five years, 20% of families left before the end of the first year and 40% by two-and-a-half years.³⁴ All Even Start projects are obliged to submit statistics to a central information system. In 1989/90, 55% of families participating in Even Start remained in the project for one year or less, 25% participated in both year one and two, and 20% for three years or longer.³⁵ Although the participants could stay in New Chance for 18 months, the average number of months (not necessarily continuous) they were actually actively engaged in the program was just over six months, roughly one third of the maximum. Only about one third of the women enrolled moved into the second phase.³⁶

Sporadic attendance and early drop-out, other than as the result of moving out of the neighbourhood, are important indicators that two-generation programs either fail to meet their needs as they are perceived by many target parents and/or make demands that some parents find too stressful and overwhelming.

5.3c *The validity of the underlying assumption*

Two-generation programs are based on the assumption that providing parenting education and assisting parents to become more employable will change the adult's behaviour and/or the family's situation in ways that will benefit the child's development. However, even when parenting behaviour and/or the home environment has changed, these programs have failed to enhance children's development. This finding is consistent with the findings from parent-only programs discussed in Chapter 4. Changes in the parent and/or home may take months to occur and children's need for positive social experiences, language stimulation, and opportunities to explore their environment cannot simply be put on hold during this period. There is a growing consensus among child development experts that the most effective way of enhancing the development of children at risk for developmental problems is to work directly with them rather than indirectly through their parents.³⁷

The attainment of employability and a decent-paying job by the type of parent targeted by two-generation programs may take years. For example, the CCDP evaluation found no difference in employment rates or status between the program and control groups five years after the start of the program. Recognition of this reality led Craig Ramey and his colleagues to state that helping parents to become employable is not likely to be an effective strategy for improving child development since, *"It cannot ensure the availability of critical supports for children in a way that is appropriately timed to meet their developmental and maturational needs."*³⁸

5.4 Conclusion

Two-generation programs, even those lasting several years and/or providing intensive programming, have failed to promote the development of at-risk children. Their lack of success reflects that found in other approaches that attempt to enhance children's development indirectly through the parent. On the basis of the research evidence, experts in child development have concluded that if the goal is enhancement of the vulnerable child's development, the most effective approach is to work directly the child.³⁹

Notes

1. Granger and Cytron, 1998; Travers, Nauta and Irwin, 1982.
2. Barnett, 1998; Gomby et al., 1995; National Research Council and Institute of Medicine, 2000; Ramey et al., 1995.
3. St. Pierre, Layzer and Barnes, 1995; 1998; Walker et al., 1995.
4. Caldwell and Bradley, 1984. In addition to assessing several aspects of parent behaviour, such as responsiveness, the HOME scale assesses the home's provision of materials and activities that support and promote children's development.
5. Goodson et al., 2000a; Goodson et al., 2000b; Gilliam et al., 2000; St. Pierre, Layzer and Barnes, 1998.
6. Caldwell and Bradley, 1984.
7. Gamse et al., 1997; St. Pierre and Swartz, 1995; St. Pierre et al., 1996.
8. St. Pierre et al., 1996, p. 2.
9. St. Pierre and Swartz, 1995, p. 41.
10. St. Pierre, Layzer and Barnes, 1998, p. 108.
11. Ibid., p. 107 - 108.
12. St. Pierre and Swartz, 1995.
13. Gamse et al., 1997, p. A-7.
14. Gamse et al., 1997; St. Pierre et al., 1996.
15. Caldwell and Bradley, 1984.
16. Dunn and Dunn, 1981.
17. Gamse et al., 1997, pp 16-17.
18. St. Pierre et al., 1996, p. 10.
19. Granger and Cytron, 1998; Quint and Egeland, 1995; Quint, Bos and Polit, 1997.
20. Quint, Bos and Polit, 1997, p. 6.
21. St. Pierre, Layzer and Barnes, 1998; Quint and Egeland, 1995.
22. Quint, Bos and Polit, 1997, p. 8.
23. Ibid., 1997, p. 3.
24. Ibid., p. 9.
25. Caldwell and Bradley, 1984.

-
26. Quint, Bos and Polit, 1997, pp. 16 - 18.
 27. Ibid., Tables ES-4 and ES-6.
 28. Granger and Cytron, 1998, Table 9.
 29. Granger and Cytron, 1998; Travers, Nauta and Irwin, 1982.
 30. Ramey and Campbell, 1984, 1991.
 31. At follow-up in grade 8 there was a lower rate of placement in special education programs for program children (41% in comparison to 89%) and a lower rate of grade retention (29% in comparison to 89%). However, there were no statistically significant differences in grade levels or achievement test scores though the trend in both was in favour of the program group (Garber, 1988).
 32. Wasik et al., 1990.
 33. Quint and Egeland, 1995, p. 126.
 34. St. Pierre, Layzer and Barnes, 1998, Table 4-1.
 35. St. Pierre et al., 1996, p. 6.
 36. Quint, Bos and Polit, 1997, p. 8.
 37. Barnett, 1998; Gomby et al., 1993; National Research Council and Institute of Medicine, 2000; Ramey et al., 1995.
 38. Ramey et al., 1995, p. 2000.
 39. Barnett, 1998; Gomby et al., 1993; National Research Council and Institute of Medicine, 2000; Ramey et al., 1995.