

CHAPTER 10

A Community-Based Approach to Promoting Resilience in Young Children, Their Families, and Their Neighborhoods

RAY DEV. PETERS

Resilience, as defined in this volume and elsewhere, refers to positive human adaptation in the context of adversity (Roberts & Masten, Chapter 2; Werner, Chapter 1). Emmy Werner's pioneering studies on risk and protective factors affecting vulnerability and resilience in life span human development (e.g., Werner & Smith, 1989, 2001), along with the work of Norman Garmezy (1971, 1991) and Michael Rutter (1979), have defined the field of resilience research for the past two decades.

The main focus of the present chapter is on intervention programs that attempt to promote resilience by fostering positive development in early childhood. The chapter begins with a review of the literature concerning early childhood development programs, and a discussion of several limitations of these programs. Virtually all the effective early childhood programs in the research literature that have demonstrated long-term positive adaptation have focused their interventions on high-risk children or young children with high-risk mothers. Several potential limitations of this individual risk approach are discussed in light of epidemiological measures of relative versus attributable risk. An alternative approach to resilience intervention is described; namely, a

universal intervention for all young children and their families living in high-risk neighborhoods. An early childhood intervention project based on this approach to resilience enhancement, the Better Beginnings, Better Futures Project, is described and the impacts on child, family and neighborhood development are discussed.

EARLY CHILDHOOD DEVELOPMENT

Within the last 15 years, there has been increased interest in the influence of the early years of life on children's subsequent health and development, readiness to learn, and social-emotional well-being. This interest in the importance of early childhood development appears to have been spurred by several factors. One is a growing public awareness of the importance of early experience on brain development and the potential long-term value to children and society of promoting healthy development during the period from birth to 6 years, especially among the most vulnerable children living in impoverished and dysfunctional families and communities (Cynader & Frost, 1999; McCain & Mustard, 1999; Shore, 1997).

Interest also has derived from longitudinal and epidemiological studies of children's social, emotional and behavioral disorders, demonstrating that: a) 15 to 20% of children between the ages of 4 and 16 suffer from one or more serious adjustment difficulties (Bradenberg, Friedman, & Silver, 1990; Costello, 1989; Offord et al., 1987); b) few of these children receive social and mental health services (Offord et al., 1987; Tuma, 1989); and c) children with early social and emotional problems, particularly those in low socioeconomic families, are at increased risk for displaying a wide range of adolescent and adult dysfunctions, including school failure/dropout, unemployment, social welfare dependence, and criminal behavior (e.g., Campbell, 1995; Loeber & Dishion, 1983; Lynam, 1996; Moffitt, Caspi, Dickson, Silva, & Stanton, 1996; Reid, 1993). A recent review of the literature (Hertzman & Wiens, 1996) also indicates the strong determining influence of early child development on adult health and disease.

A third influence has been concern over high and increasing rates of child and family poverty in the U.S. and Canada and the long-term effects of low socioeconomic status on child development through adolescence into adulthood, with subsequent effects on socialization of the next generation (Duncan & Brooks-Gunn, 1997; Willms, 2002).

This interest in early development has prompted renewed attention to the effects of intervention programs designed to facilitate positive development in children and their families, particularly those living in high-risk, socioeconomically disadvantaged neighborhoods. Questions

concerning the long-term effects of these programs are of particular interest to government policy makers, specifically the degree to which investments in early childhood programs have later effects on academic, health, and social functioning in children and their families, resulting in decreased rates of unemployment, delinquency, welfare participation, and use of health services.

An indication of the importance of these questions is the large number of reviews of early childhood development programs that have been carried out recently, primarily focusing on the state of knowledge concerning long-term effects on young children at high risk and their families (e.g., Durlak & Wells, 1997; Hertzman & Wiens, 1996; Karoly et al., 1998; Mrazek & Brown, 2002; Ramey & Ramey, 1998; Webster-Stratton & Taylor, 2001).

Effective Early Childhood Development Programs

These reviews report that few early childhood development programs have been adequately designed, particularly for children younger than 7 or 8 years old. Most of the programs either have not been evaluated at all, or the evaluations have such serious flaws that no meaningful conclusions can be drawn from them (Mrazek & Brown, 2002).

Most demonstration studies that have shown effects have employed small samples. For example, the High-Scope Perry Preschool Project (Schweinhart, Barnes, & Weikart, 1993) involved 58 preschool children in the intervention, the Carolina Abecedarian Project (Ramey & Campbell, 1984) involved 57 very high-risk children, and the Elmira Nurse Home Visitation Program (Olds, 1997; Olds et al., 1997), found that all the positive long-term outcomes occurred in a small sub-sample of 37 high-risk mothers and their children. Attempts to expand such small-scale “efficacy” trials to multiple sites and to more children have been disappointing (see, for example, the Comprehensive Child Development Project; St. Pierre, Layzer, Goodson, & Bernstein, 1997).

Few studies have followed the children and parents after the program ended to determine long term outcome effects. Further, costs of implementing programs for young children are seldom collected or reported (Karoly et al., 1998). This failure to provide long-term follow-up and economic analyses makes it particularly difficult for policy makers to make informed decisions. Several notable exceptions are the three studies noted earlier (the Perry Preschool Project, the Carolina Abecedarian Project, and the Elmira Nurse Home Visitation Project), as well as the Chicago Child-Parent Centers (CPC) Project (Reynolds, Temple, Robertson, & Mann, 2003). All four of these early childhood intervention studies have now reported economic analyses based on

follow-up data for children, and in some cases their parents, to the child's age of 15 (the Elmira project), 21 (Abecedarian and CPC Projects) and 35 (Perry Preschool project).

Another limitation is the narrow focus adopted by program models. In social policy discussions, there is much rhetoric about the potential importance of early childhood programs being comprehensive, holistic, ecological, community-based, and integrated. However, virtually no well-researched programs for young children have successfully incorporated these characteristics into the program model. In the few well-researched studies, focus has been predominately on children's cognitive and academic functioning, not on emotional and behavioral problems, social competence, or physical health. None of these projects has included activities designed to improve the quality of the local neighborhood for young children and their parents. Local community members have had little or no involvement in the development and implementation of the programs. Also, St. Pierre and Layzer (1998) report that few studies have examined the effects of prevention programs integrating with local service providing organizations.

The Risky Business of Risk in Early Childhood Programs

Virtually all of the well-researched early childhood development programs have adopted a targeted or high-risk approach. Studies have attempted to identify important risk factors or to implement targeted programs with children at high-risk for developmental problems (Karoly et al., 1998; Mrazek & Brown, 2002). A major issue facing programs targeted at high-risk children is the relative strength as well as the prevalence of the risk variables selected. Of interest here is the epidemiological concept of *population attributable risk*. The calculation of population attributable risk combines measures of relative risk and prevalence to indicate the maximum reduction in the incidence of a disease or disorder that could be expected if the effects of a causal risk factor could be eliminated (Rockhill, Newman, & Weinberg, 1998; Rothman & Greenland, 1998; Scott, Mason, & Chapman, 1999; Tu, 2003). For example, Offord, Boyle, and Racine (1989) identified five family risk factors and, based on an analysis of attributable risk, concluded that even if it were possible to eliminate these risk factors, the reduction in children's mental health problems would be only from 18% to 14%.

Also, Willms (2002) recently reported attributable risk analyses of the Canadian National Longitudinal Survey of Children and Youth (a large nationally representative sample of over 30,000 Canadian children and their families), begun in 1994 and following children from birth to their early 20's. Willms found that the five most important family

risk factors associated with children's cognitive, emotional, and behavior problems were low maternal education, teenage motherhood, low family income, single parenthood, and low paternal occupational status. However, the total cumulative attributable risk for these five risk factors was 19.2 percent. According to Willms (2002), this finding "... indicates that even if we could eliminate all the risk factors associated with family background, we would reduce childhood vulnerability by less than twenty percent." (p.90)

These findings suggest that the major risk factors that have been identified for compromised early childhood development (e.g., family dysfunction, low income, one-parent family) appear to have a low population attributable risk, presenting serious challenges to targeted, high-risk prevention interventions. Even if it were possible to eliminate these risk factors from society, the overall reduction in children's vulnerability would not be great. These results also indicate that 80% of young children manifesting serious cognitive, emotional and behavioral problems do not come from "high-risk" families, but rather from two-parent families with adequate income and parental education. Thus, targeted programs for only high-risk children or families, even if highly effective, may have little impact on the community rates of early childhood difficulties.

Given the limitations of high-risk, targeted programs for early childhood development, there is an increased interest in *universal* programs for young children and their families (McCain & Mustard, 2002; Offord, 1996; Offord, Kraemer, Kazdin, Jensen, & Harrington, 1998; Peters, Petrunka, & Arnold, 2003; Willms, 2002). From a universal perspective, all children are considered to be at risk or potentially vulnerable for developmental problems and therefore should be eligible to participate in programs designed to prevent them. This is similar to the public health approach to preventing many diseases in young children, such as polio and rubella where vaccinations are considered important for all children, not just those considered to be at "high risk" for contracting the diseases.

Two types of universal programs have been identified: those that focus on particular neighborhoods, or on particular settings such as a school or a housing project, and those programs that are state, province, or countrywide (Offord, 1996). There has been little research to date on either type, especially with young children (Mrazek & Brown, 2002; Offord, 1996; Webster-Stratton & Taylor, 2001).

To summarize, much of the current knowledge about positive long-term effects of early childhood development programs rests on a few small-scale programs carried out with extremely disadvantaged, high-risk children or their mothers. These programs have focused primarily on the intellectual and cognitive development of young children or on

improving the quality of life for their mothers. Few have reported cost data. There has been little reported attempt to integrate programs with other local services or organizations or to involve parents or other local residents in program planning or implementation. Finally, very few programs have been universal, e.g., focused on all children in a particular neighborhood. Rather, most projects have targeted very high-risk children and families employing risk variables that may have low population attributable risk with limited potential for reducing overall rates of childhood difficulties.

THE BETTER BEGINNINGS, BETTER FUTURES PROJECT

After reviewing these limitations of early childhood programs, the Ontario Government created a program called Better Beginnings, Better Futures (Government of Ontario, 1990), to discover effective ways of supporting the development of young children and strengthening family and community life in disadvantaged neighborhoods.

Project Description

Starting in 1991, funding was provided to eight disadvantaged neighborhoods in Ontario to develop and implement social, health, and educational programs for children from the prenatal period to age 4 in five *younger child* project sites and for children from ages 4 to 8 in three *older child* project sites.

These eight local communities were challenged to meet a combination of project goals: a) to improve the development and well-being of young children; b) to strengthen the abilities of parents to respond effectively to the needs of their children; c) to provide high-quality social, health, and educational programs for children and families that respond to the needs of the neighborhood; d) to develop the capacity of the local neighborhood to help itself by involving parents and other residents in the building of a local organization to deliver these programs; and e) to establish partnerships with other service organizations and coordinate programs to support young children and families in these neighborhoods.

Program Model

The Better Beginnings, Better Futures Project was designed to include the following characteristics in the program model:

Ecological. Programs are to recognize the many influences on the growing child, starting within the family, and expanding outwards to the local neighborhood and broader community;

Holistic. Programs should address all aspects of child development; that is, social, emotional, physical, and cognitive functioning;

Universal. All children in the age group living in the neighborhood and their families are eligible for program participation, not just those seen to be at highest risk;

Community-Based. The model allows the local eight sites considerable freedom and responsibility to tailor programs to local needs, within budget limitations and the overall mandate of the project;

Community-Led. Each site is to insure real and meaningful involvement by parents and other community residents in all aspects of local project development and implementation; and

Collaborative and Coordinated. This model program characteristic encourages partnerships among neighborhood and community organizations providing services for young children and families, and coordination among programs.

The Better Beginnings, Better Futures Project model, implemented in 1991, was unique in that it defined “high risk” by the characteristics of neighborhoods rather than by characteristics of children or their parents. The neighborhoods selected for project implementation were characterized by socioeconomic disadvantage, but all children in the designated age range living in the neighborhood and their families were eligible for program involvement. Thus, the Better Beginnings, Better Futures Project was designed as a universal intervention to foster resilience (i.e., improve developmental outcomes) in all children and their families living in a high-risk neighborhood environment.

Program Participants

Since the program model was universal, child- and family-focused programs were to be available to all children in the specified age range and their families living in the Better Beginnings neighborhoods. In the five younger child sites, the number of birth-to-4-year-old children averaged 600 per site, while in the three older child sites, the average number of 4-to-8 year olds was 500. This resulted in 4,500 children and families available for Better Beginnings programs across the eight project sites each year.

As mentioned previously, these eight neighborhoods were characterized by socioeconomic disadvantage. For example, 83% of the families in the younger child sites and 64% in the older child sites were

below Statistics Canada's Low Income Cut Offs. On average, 37% of the families were headed by a lone parent.

Program Activities

The Better Beginnings project model required each community to develop and deliver high quality programs that could be expected to produce positive child, family, and neighborhood outcomes. High-quality programs were defined as paying careful attention to: a) staff recruitment, training, adequate compensation, and participation in decision-making; b) favorable child-staff ratios; c) curriculum development relating program activities to goals and objectives; and d) providing time for all staff to develop close relations with the families and communities in which they work.

The younger child sites, focusing on children from birth to age 4, were required by the Government funder at a minimum to provide home visiting programs, plus supports to increase the quality of local child care, for example, through additional staff and resources to existing day-care and preschool programs and organizing playgroup programs. The older child sites were required to provide in-classroom or in-school programs, plus supports to increase the quality of local child care, through, for example, before and after school and summer holiday art and recreation programs.

In addition, the sites provided a wide variety of other programs tailored to local needs, either by themselves or in partnership with other education and service providers. Examples include parent-child drop-in programs and toy-lending libraries, parent training and support groups, nutrition supports, neighborhood safety initiatives, cultural awareness activities, recreation, and mentoring programs. The younger child sites provided an average of 26 different programs, whereas the older child sites provided an average of 16 different programs for the children, their families and the local neighborhood.

Of the five younger child sites, three invested over half their base government funding in home visiting programs. One of these sites, however, was unique in putting almost all its programming efforts directly into home visiting, perinatal and postnatal support, and child care programming. A fourth younger child site distributed its resources more evenly among the program areas, with strong emphasis on local leadership development as a prevention vehicle. The fifth site is the only Better Beginnings, Better Futures Project located within a First Nation. Stressing values based on traditional culture, it put more than half its base budget into community development and community healing activities. It combined home visiting and playgroup activities

with a pre-existing, high-quality child care center that was separately funded.

Of the three older child sites, two made substantial investments in school-based programming. Both of these sites funded classroom assistants who provided enriched support for children in Junior Kindergarten, starting at age 4, through Grade Two. The third site provided comparatively few in-school enrichment activities, concentrating more on before-and after-school and holiday arts and recreation programs, and emphasizing community and leadership development more than many of the other sites.

The Better Beginnings, Better Futures Project is neither a service nor a program. It is a project initiative for mobilizing disadvantaged neighborhoods to foster resilience; that is, promote positive functioning in young children, their families, and the neighborhood itself. According to ecological theory, young children, their families and the local neighborhood should be positively affected by the project through improved family and community environments and resources. In practice, some children and families were touched directly by these improved resources (e.g., home visitors, classroom programs, before and after school programs, parent training, play groups). Some attended programs on a regular basis, others on a very random or part-time basis. Some did not attend any programs but may have been touched indirectly; for example, by a neighbor who attended programs and offered advice/support, by safer streets and parks, or by increased community participation. Larry Schweinhart (personal communication, 2000), from the High-Scope Perry Preschool Project, has described the Better Beginnings, Better Futures Project as being not a program but a “meta-program” or general strategy for fostering resilience in children, families and communities.

Research Methods

A team of multidisciplinary researchers from seven Ontario universities and field researchers in each local site were responsible for the research design, and for data collection, analysis, and reporting. All research activities were coordinated by the Better Beginnings, Better Futures Research Unit with central offices at Queen’s University in Kingston, Ontario.

Qualitative, Descriptive Research on Project Development and Organization. Local site researchers were trained to write descriptive reports on program development and implementation at each site using a common protocol. These local site reports were summarized in comprehensive cross-site reports covering a) how the Better Beginnings

initiative was developed; b) how communities generated proposals for the original competition in 1990; c) how local residents were involved in project decision making; d) how local service providers and educators were involved in project decision making and resource provision; e) specific program activities and components, as well as staffing patterns; f) the formal and informal decision-making structures and values, committee structure, and management procedures in each project site; and g) personal stories from program participants, staff, and local residents concerning their experiences with the Better Beginnings Project.

Quantitative Outcome Research. Information about children, parents, families, and neighborhoods was collected in a variety of ways: annual 2-hour, in-home parent interviews carried out by local site researchers employed by the Research Coordination Unit; annual direct child measures also collected by Research Coordination Unit researchers; annual teacher reports; and federal and provincial databases (e.g., Statistics Canada Census data, Ontario Principals' Reports of Special Education Instruction).

Baseline information in the eight project neighborhoods was collected in 1992–93 before the Better Beginnings, Better Futures programs were fully operational. Extensive information was collected to determine how children at the upper age of the project window were developing before the programs were in place, as well as characteristics of their families and neighborhoods. This 1992–93 baseline measurement involved 350 *4-year-old children* and their families at the younger child sites, and 200 *8-year-olds* and their families in the older child sites. This baseline sample represented approximately 50% of the eligible children of that age living in the project site.

In 1992–93, three comparison sites were selected for the eight Better Beginnings project sites. These sites were selected, using Statistics Canada Census data, as being similar to the Better Beginnings sites in terms of average annual family income, single parent status, parent education and employment, and cultural identity.

In 1993–94, 1,400 children and their families in the eight project sites and in the three comparison neighborhoods agreed to participate in a longitudinal research group. At the younger child sites, these children were born in 1994. At the older sites, these children were 4 years old in 1993. Data on these longitudinal research groups of children and their families were gathered regularly over a 5-year period in the project and comparison sites. Outcome measures were gathered in the younger child sites when the children were 3, 18, 33, and 48 months of age, and in the older child sites every year from age 4 until the children turned 8 in 1997–98.

In 1997–98, the outcome measures collected from the longitudinal research groups were compared to the baseline information that had been collected in 1992–93. This allowed changes in the children, their families, and the local neighborhoods to be determined within each of the sites during the first 5 years of the project.

Information was gained from the parent interviews, direct measures of child development, annual teacher reports, and the use of neighborhood-level, provincial, and national databases.

Thus, two research designs were employed, resulting in two “views” of the impact of the project. The first (a within-site, before-after design) assessed what changes, if any, occurred between children and families in each of the eight neighborhoods after 5 years of Better Beginnings, Better Futures programming, compared to the baseline data. The second (a quasi-experimental control-group design) examined how changes in children and families in the longitudinal research group in the eight Better Beginnings neighborhoods over 5 years of programming differed from changes in those from the demographically similar comparison sites that were not receiving Better Beginnings, Better Futures funding.

Project Costs. Costs were collected using a common accounting system and software at each site. The cost data collected included both direct dollar expenditures and other costs of operating the programs, particularly volunteer time (so-called service-in-kind or opportunity costs). These latter costs typically have not been measured in projects of this sort.

RESULTS

The results presented in this section summarize the data collected from 1991 to 1998. For detailed reports of these data, see Peters et al. (2000), and Peters et al. (2003).

Child Outcomes

Child Emotional, Behavioral, and Social Functioning

A major reason for undertaking Better Beginnings, Better Futures was to prevent emotional and behavioral problems and promote adaptive social functioning in young children. The Ontario Child Health Study (Offord et al., 1987) had found that one in six children from age 4 to 16 suffered from an emotional or behavioral disorder and less than 20% were getting professional help for their problems.

From 1993 to 1998, Junior Kindergarten teachers reported a 27% decrease in emotional problems (anxiety and depression) in children at three of the five younger child sites. Home visiting and playgroups for children and their parents were particularly important programs offered in these sites.

Among these three sites, the largest decrease in children's anxiety and depression was found in the site that invested the greatest amount of program resources in home visiting and in child care by enriching local child care centers in the neighborhood and by providing many informal child care experiences. Junior Kindergarten teachers in this site also reported improvements in aggressive and hyperactive behaviors and school readiness in the children who lived in the Better Beginnings, Better Futures neighborhood. School readiness ratings reflected the child's cognitive, behavioral, and physical skills considered important for primary school success.

Ratings by Junior Kindergarten teachers were not available from one site because Junior Kindergarten was not provided by the local public Board of Education. The other site for younger children did not show improvements in children's emotional and behavioral problems at Junior Kindergarten.

Recent reviews of early childhood intervention studies described earlier found that few studies have reported improvements in social-emotional functioning of children before school entry. Two studies that did report positive effects (the Abecedarian Project, Ramey & Campbell, 1984; and the Infant Health and Development Project, McCarton et al., 1997) provided full-time, year-round, center-based child care for 3 to 5 years, and in both cases, the improvements faded after children entered school. Nor have studies of infant home visiting programs reported reduced social-emotional problems during the preschool years (Gomby, Culross, & Berman, 1999; Olds & Kitzman, 1993). This makes the results of the Better Beginnings, Better Futures project quite important, because healthy social and emotional development at kindergarten is a key indicator of future school success.

In the three older child sites, teachers reported a 7% decrease in children's anxiety, compared to a 45% increase in the comparison sites. Teachers also reported a 3% increase in children's self-control in the project sites, compared to a 9% decrease in self-control in the comparison neighborhoods. Parents reported improved cooperative behavior in their children. In the two sites that showed the greatest improvements in children's social and emotional behavior, educational assistants provided in-classroom individual and group support to children continuously from Junior Kindergarten to Grade 2.

Child Cognitive Development, Special Education, and School-Family Relations

In the younger child sites, there were no consistent cross-site improvements found in direct measures of cognitive or intellectual development on standardized tests. This finding should not be surprising. Other projects that have demonstrated intellectual improvements in preschoolers have provided intensive, center-based, educational programs to very high-risk young children (e.g., the Abecedarian, Perry Preschool, and CPC Projects described earlier).

In the older child sites, there were also no improvements found in cognitive development or school achievement. It is unlikely that the Better Beginnings, Better Futures in-school programs were intensive enough to improve children's scores on these measures, over and above the effects of regular classroom experiences.

However, in the older child sites, there was an interesting change in the area of special education where the number of students receiving special education services showed a significant decrease in schools in two of the three project sites, and an increase in schools in the comparison neighborhoods. The two Better Beginnings sites that showed improvements in special education provided programs in school classrooms while the major child-focused programs in the third site were outside the classroom and most were outside school hours.

Child Physical and Nutritional Health

Parents of children in the younger sites reported significantly more timely immunizations at 18 months, and also felt they had improved access to professionals, such as doctors, dentists, and social workers, for their children relative to parents in the comparison site.

In the older child sites, there was a general improvement in children's nutritional intake in the first 2 years of the project. There were also improved parent ratings of their children's general health. In the baseline data in 1993, 42% of parents rated their 8-year-old children as having excellent health; 4 years later, 61% of parents said their 8-year-old children had excellent health.

Summary of Child Outcomes

These results indicate a positive impact of the Better Beginnings, Better Futures Project on children's social-emotional functioning and physical health. There was little indication of positive project impacts

in the areas of cognition and academic performance except in the decreased special education rates in schools at two of the three older child Better Beginnings sites. The variation noted on positive outcomes across the project sites on child outcomes appears to be, at least in part, a result of the percentage of program resources that each local project dedicated to programs focused directly on children. More discussion of differential program effects appears later in the chapter.

Parent and Family Outcomes

At all of the project sites, there was reduced smoking by mothers. This finding is encouraging since smoking levels tend to be high in disadvantaged communities, and the long-term health effects of smoking are well known.

In the younger child sites, an average of 45% of the women interviewed smoked before the Better Beginnings, Better Futures Project began, compared to 28% of women of the same age across Ontario. After 5 years, the percentage of women smoking in the younger child Better Beginnings sites had dropped to 35%, much closer to the provincial average. The relative decrease was greatest among the heaviest smokers.

In the older child sites, 46% of the parents smoked before Better Beginnings, Better Futures programs began, and 26% smoked after 4 years of project implementation. The reduction in parent smoking rates in the Better Beginnings sites from 1993 to 1998 is impressive. National smoking rates for women of the same age only changed from 30% in 1994 to 27% in 1998. The change in smoking rates in Better Beginnings, Better Futures sites may be related to the fact that parents had increased opportunities to meet other parents, participate in support groups or committees, or to volunteer in community activities, especially if meetings and events were held in locations such as schools where smoking is restricted or discouraged.

There were no other consistent *cross-site* changes in measures of parent health and well-being. However, there were strong effects at one of the three older child sites where parents reported less tension juggling child care and other responsibilities, more social support, reduced alcohol consumption, increased exercise and reduced use of prescription drugs for pain. This combination of changes might be expected to reduce illness, particularly stress-related illness. Parents at this site also reported improved family relations as reflected in increased marital satisfaction, more consistent and less hostile-ineffective parenting, and increased parenting satisfaction.

It is difficult to specify the exact pathways through which the results in this site were achieved, but it is possible to point to a distinctive feature of the program that could have produced the difference between this site and others; namely, the consistent, ongoing attempts to involve parents in Better Beginnings programs and in school events. Project staff visited all the parents in the longitudinal research group regularly for 4 years, discussing how their children were coming along at school, issues in child-rearing, and questions about family living. Parents were encouraged by the staff to become involved in parenting programs and other activities at the school and informed about community resources that could help them. Overall, this group of parents and their children was the focus of more frequent, intensive, and wide-ranging attention from the Better Beginnings, Better Futures Project than those at any other site.

Neighborhood Outcomes

Neighborhood Quality of Life

In all of the younger child sites, parents reported increased safety when walking at night. Two of these five sites also perceived less neighborhood deviant activity (alcohol and drug abuse, violence and theft), and were more satisfied with the safety and general quality of their neighborhood.

In the three older child sites, parents reported greater satisfaction with the general quality of their neighborhood, and the condition of their housing. There was also a large increase in children using local playgrounds and recreational facilities in two of the sites. Thus, in all eight sites, there was some indication of parents perceiving an improvement in the quality of life in the neighborhood.

Local Project Development and Organization

An important goal of the Better Beginnings Project was to develop locally owned and operated Better Beginnings, Better Futures organizations. In all eight Better Beginnings Project sites across Ontario, low-income, highly stressed, and fractured neighborhoods have been able to build the organizations necessary to deliver locally appropriate programs for families and young children.

There were important findings from the qualitative research carried out during the project start-up phase from 1991 to 1993 concerning how the local projects developed their local organizations. The original

plan in 1990 was that this demonstration initiative would last for 5 years. The start-up phase was only expected to take a year. That turned out to be quite unrealistic, given the complex challenges facing these communities, including: a) gaining the confidence and trust of parents and other residents who were distrustful of a government initiative; b) building local organizations with at least 50% resident participation in the governing structure; c) developing quality programs focused on children in the specific age groups (0–4 or 4–8 years), their families, and the neighborhood tailored to local needs; d) creating partnerships with other service organizations already operating in the community; and e) enhancing community capacity and developing local leadership.

Time and Support. Communities needed time to build trust and develop programs. Residents were initially wary of the initiative, and had little or no experience with a neighborhood-driven project like Better Beginnings, Better Futures. It took about 3 years before structures, procedures, and programs were stable. During this time, the sites received some assistance from the government funders with planning and organizational development.

Resident Involvement. The project's requirement that there be significant and meaningful local resident involvement was translated into the "50% rule," where every important planning and implementation committee was expected to include at least 50% local residents.

Local Control. It is ordinarily very difficult to achieve substantial resident involvement in high-risk neighborhoods. A major incentive for local participation was the high level of control given to the local organization. Residents participated in allocating budgets, deciding which programs to fund, writing job descriptions, and sitting on hiring committees.

Ground Rules. Although there was considerable flexibility in how the sites implemented programs locally, there were some requirements imposed by government funders. These included the requirement that all younger child sites implement home visiting and child care enrichment programs and all older child sites implement child care enrichment and school-based programs. However, it was not always clear as to what these requirements were and how they were to be implemented. It may have been more helpful to have been very clear from the start what the ground rules were, and what specific programs were required.

Program Focus. In this project, with its multiple goals and community control, local organizations had to choose where to put their prime program emphasis. In some sites, a stronger focus of programs on support for parents or community development may have diluted the focus of programs for children.

PLANS FOR LONGER-TERM RESEARCH

Supported by funding from the Ontario Ministry of Health and Long-term Care, the research team for Better Beginnings, Better Futures is continuing to follow the longitudinal research group of 1,900 children and their families from both the project and comparison sites to find out how well they are doing as the children develop into adolescence and early adulthood. This follow-up research will study the long-term costs and benefits of Better Beginnings, Better Futures for the research group of children, using measures of academic progress and secondary school graduation rates, use of health and special education services, employment, use of social assistance, and criminal justice system involvement.

This long-term research is also designed to answer important questions concerning the sustainability of the local projects over time, and their ability to maintain stable organizational structures with solid resident involvement, effective service system partnerships, and a range of child, family and neighborhood programs.

CONCLUSION

The hallmark of the Better Beginnings, Better Futures Project is the successful establishment of eight locally operated, community-based organizations. Faced with an extremely broad and complex mandate, high expectations, and relatively little explicit direction, each of the communities developed an organization characterized by significant and meaningful local resident involvement in all decisions. This alone represents a tremendous accomplishment in neighborhoods where 15 years ago, many local residents viewed government programs and social services with skepticism, suspicion, or hostility. In developing their local organizations, Better Beginnings projects have not only actively involved many local residents, but also played a major role in forming meaningful partnerships with other service organizations. They have developed a wide range of programs, many designed to respond to the locally identified needs of young children and their families, and others to the needs of the neighborhood and broader community. As they strengthened and stabilized over the 7-year demonstration period from 1991 to 1998, each Better Beginnings project increasingly gained the respect and support not only of local residents, service-providers, and community leaders, but also of the Provincial Government which, in 1997, transferred all projects from demonstration to annualized funding, thus recognizing them as *sustainable*.

The short-term findings from these projects reported in this chapter are encouraging, and provide a unique foundation for determining the extent to which a universal, comprehensive, community-based strategy can promote the longer-term resilience of young children, their families and their local neighborhoods.

ACKNOWLEDGMENTS

This research was funded under contract by the Ministries of Health and Long-Term Care, Education and Training, and Community, Family and Children's Services, Ontario, Canada.

This article reflects the views of the author and not necessarily those of the Ministries.

Requests for reprints should be sent to Ray DeV. Peters, Queen's University, 98 Barrie Street, Kingston, Ontario, Canada K7L 3N6. E-mail: petersrd@psyc.queensu.ca.

REFERENCES

- Bradenberg, H. A., Friedman, R. M., & Silver, S. E. (1990). The epidemiology of childhood psychiatric disorders: Prevalence findings from different studies. *Journal of the American Academy of Child and Adolescent Psychiatry*, *29*, 76–83.
- Campbell, S. (1995). Behaviour problems in preschool children: A review of recent research. *Journal of Child Psychology and Psychiatry*, *36*, 113–149.
- Costello, E. J. (1989). Developments in child psychiatric epidemiology. *Journal of the American Academy of Child and Adolescent Psychiatry*, *28*, 836–841.
- Cynader, M. & Frost, B. J. (1999). Mechanisms of brain development: Neuronal sculpting by the physical and social environment. In D. Keating & C. Hertzman (Eds.), *Developmental health and the wealth of nations* (pp. 153–184). New York: Guilford Press.
- Duncan, G. J., & Brooks-Gunn, J. (Eds.) (1997). *Consequences of growing up poor*. New York: Russell Sage Foundation.
- Durlak, J. A., & Wells, A. M. (1997). Primary prevention mental health programs for children and adolescents: A meta-analytic review. *American Journal of Community Psychology*, *25*, 115–152.
- Garmezy, N. (1971). Vulnerability research and the issue of primary prevention. *American Journal of Orthopsychiatry*, *41*, 101–116.
- Garmezy, N. (1991). Resilience in children's adaptation to negative life events and stressed environments. *Pediatrics*, *20*, 459–466.
- Gomby, D. S., Culross, P. L., & Berman, R. E. (1999). Home visiting: Recent program evaluations—analysis and recommendations. *The Future of Children*, *9*, 4–23.
- Government of Ontario. (1990). *Better Beginnings, Better Futures: An integrated model of primary prevention of emotional and behavioural problems*. Toronto, Canada: Queen's Printer for Ontario.
- Hertzman, C., & Wiens, M. (1996). Child development and long-term outcomes: A population health perspective and summary of successful interventions. *Social Science and Medicine*, *43*, 1083–1095.

- Karoly, L., Greenwood, P., Everingham, S., Houbé, J., Kilburn, M., Rydell, C., et al. (1998). *Investing in children: What we know and don't know about the costs and benefits of early childhood interventions*. Santa Monica, CA: RAND.
- Loeber, R., & Dishion, T. (1983). Early predictors of male delinquency: A review. *Psychological Bulletin*, *94*, 68–99.
- Lynam, D. R. (1996). Early identification of chronic offenders: Who is the fledgling psychopath? *Psychological Bulletin*, *120*, 209–234.
- McCain, M. N., & Mustard, J. F. (1999). *Early Years Study: Reversing the real brain drain*. Toronto, Ontario: Ontario Children's Secretariat; www.childsec.gov.on.ca.
- McCain, M. N., & Mustard, J. F. (2002). *The Early Years Study three years later. From early development to human development: Enabling communities*. Toronto, Ontario: Founders Network; www.founders.net
- McCarton, C., Brooks-Gunn, J., Wallace, I., Bauer, C., Bennett, F., Bernbaum, J., et al. (1997). Results at age 8 years of early intervention for low-birth-weight premature infants: The Infant Health Development Program. *Journal of the American Medical Association*, *277*, 126–132.
- Moffitt, T., Caspi, A., Dickson, N., Silva, P., & Stanton, W. (1996). Childhood-onset versus adolescent-onset antisocial conduct problems in males: Natural history from ages 3 to 18. *Development and Psychopathology*, *8*, 399–424.
- Mrazek, P. J., & Brown, C. H. (2002). An evidenced-based literature review regarding outcomes in psychosocial prevention and early intervention in young children. In C. C. Russell (Ed.), *The state of knowledge about prevention/early intervention* (pp. 42–144). Toronto, Canada: Invest in Kids Foundation; www.investinkids.ca.
- Offord, D. R. (1996). The state of prevention and early intervention. In R. DeV. Peters & R. J. McMahon (Eds.), *Preventing childhood disorders, substance abuse and delinquency* (pp. 329–344). Thousand Oaks, CA: Sage.
- Offord, D. R., Boyle, M. H., Szatmari, P., Rae-Grant, N. I., Links, P. S., Cadman, D. T., et al. (1987). Ontario Child Health Study. II: Six month prevalence of disorder and rates of service utilization. *Archives of General Psychiatry*, *44*, 832–836.
- Offord, D. R., Boyle, M. H., & Racine, Y. A. (1989). *Children at risk*. Toronto, Canada: Ontario Ministry of Community and Social Services.
- Offord, D. R., Kraemer, H. C., Kazdin, A. E., Jensen, P. S., & Harrington, R. (1998). Lowering the burden of suffering from child psychiatric disorder: Trade-offs among clinical, targeted and universal interventions. *Journal of the American Academy of Child and Adolescent Psychiatry*, *37*, 686–694.
- Olds, D. L. (1997). The Prenatal Early Infancy Project: Preventing child abuse in the context of promoting maternal and child health. In D. A. Wolfe, R. J. McMahon, & R. DeV. Peters (Eds.), *Child abuse: New directions in prevention and treatment across the lifespan* (pp. 130–156) Thousand Oaks, CA: Sage.
- Olds, D. L., & Kitzman, H. (1993). Review of research on home visiting for pregnant women and parents of young children. *The Future of Children*, *3*, 53–92.
- Olds, D. L., Eckenrode, J., Henderson, C. R., Kitzman, H., Powers, J., Cole, R., et al. (1997). Long-term effects of home visitation on maternal life course, child abuse and neglect, and children's arrests: Fifteen year follow-up of a randomized trial. *Journal of the American Medical Association*, *278*, 637–643.
- Peters, R. DeV., Arnold, R., Petrunka, K., Angus, D., Brophy, K., Burke, S. et al. (2000). *Developing capacity and competence in the Better Beginnings, Better Futures communities: Short-term findings report*. Kingston, Canada: Better Beginnings, Better Futures Research Coordination Unit Technical Report; <http://bbbf.queensu.ca>.
- Peters, R. DeV., Petrunka, K., & Arnold, R. (2003). *The Better Beginnings, Better Futures Project: A universal comprehensive, community-based prevention approach for*

- primary school children and their families. *Journal of Clinical Child and Adolescent Psychology*, 32, 215–227.
- Ramey, C. T., & Campbell, F. A. (1984). Preventive education for high-risk children: Cognitive consequences of the Carolina Abecedarian Project. *American Journal on Mental Deficiency*, 88, 515–523.
- Ramey, C. T., & Ramey, S. L. (1998). Early educational intervention and early experience. *American Psychologist*, 53, 109–120.
- Reid, J. B. (1993). Prevention of conduct disorder before and after school entry: Relating interventions to developmental findings. *Development and Psychopathology*, 5, 243–262.
- Reynolds, A. J., Temple, J. A., Robertson, D. L., & Mann, E. A. (2003). Age 21 cost-benefit analysis of the Title I Chicago child-parent centers. *Educational Evaluation and Policy Analysis*, 24, 267–303.
- Rockhill, B., Newman, B., & Weinberg, C. (1998). Use and misuse of population attributable fractions. *American Journal of Public Health*, 88, 15–19.
- Rothman, K. J., & Greenland, S. (Eds.). (1998). *Modern epidemiology*. New York: Lippincott, Williams, & Wilkins.
- Rutter, M. (1979). Protective factors in children's responses to stress and disadvantage. In M. W. Kent & J. E. Rolf (Eds.), *Primary prevention in psychopathology: Social competence in children* (Vol. 8, pp. 49–74). Hanover, NH: University Press of New England.
- Schweinhart, L. J., Barnes, H. V., & Weikart, D. P. (1993). *Significant benefits: The High-Scope Perry Preschool Study through Age 27*. Ypsilanti, MI: High/Scope Press.
- Scott, K. G., Mason, C. A., & Chapman, D. A. (1999). The use of epidemiological methodology as a means of influencing public policy. *Child Development*, 70, 1263–1272.
- Shore, R. (1997). *Rethinking the brain: New insights into early development*. New York: Families and Work Institute.
- St. Pierre, R. G., & Layzer, J. I. (1998). Improving the life chances of children living in poverty: Assumptions and what we have learned. *Society for Research in Child Development Social Policy Report*, 12, 1–25.
- St. Pierre, R. G., Layzer, J. I., Goodson, B. D., & Bernstein, L. S. (1997). *National impact evaluation of the Comprehensive Child Development Program: Final report*. Cambridge, MA: Abt Associates.
- Tu, S. (2003). Developmental epidemiology: A review of three key measures of effect. *Journal of Clinical Child and Adolescent Psychology*, 32, 187–192.
- Tuma, J. M. (1989). Mental health services for children: The state of the art. *American Psychologist*, 44, 188–199.
- Webster-Stratton, C., & Taylor, T. (2001). Nipping early risk factors in the bud: Preventing substance abuse, delinquency, and violence in adolescence through interventions targeted at young children (0–8 years). *Prevention Science*, 2, 165–192.
- Werner, E. E., & Smith, R. S. (1989). *Vulnerable but invincible: A longitudinal study of resilient children and youth*. New York: Adams, Bannister, Cox (originally published by McGraw Hill, 1982).
- Werner, E. E., & Smith, R. S. (2001). *Journeys from childhood to midlife: Risk, resilience, and recovery*. Ithaca, NY: Cornell University Press.
- Willms, J. D. (Ed.) (2002). *Vulnerable children*. Edmonton, Canada: The University of Alberta Press.