RUNNING HEAD: PARENTING EDUCATION PROGRAMS FOR POOR, YOUNG CHILDREN

Parenting Education Programs for Poor Young Children:

A Cross-National Exploration

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Introduction

Around the world, diverse social service programs provide parents with skills and resources that help enhance the health, nutrition and safety of their children. In some instances, these efforts also focus on promoting parent competencies and resources that enhance the language and literacy skills, emotional and behavioral regulation, and social skills of preschoolers. *Parenting education* may be defined, then, as the set of programs, resources, or services whose goal is to increase parents' capacities to foster children's health, development, and/or education. Beyond varying in their content focus, parenting education programs also vary in the way they deliver services and supports to parents; they may be quite informal or they may be structured.[1] Structured parenting education programs, though delivered in a variety of settings, are usually quite specified, replete with formal curricula, clear and sequenced activities, and proscribed numbers of parental contact hours. Informal parenting education programs are ubiquitous and take many forms, but they are distinguished by their episodic, relaxed, and more highly-individualized strategies that seek to improve parent behavior (Harkness & Super, 2002; Kagan & Lowenstein, 2006). Informal or structured parenting education efforts are often part of comprehensive programs that address many aspects of child and adult health and wellbeing (e.g. increasing child immunizations, regular attendance at school). In this paper, we review both categories of parenting education programs currently taking place in a variety of settings and nations. We include parenting education programs that are home-based and center-based (e.g. preschool intervention with a home-based component), as well as programs that are components

[1] This distinction between didactic and behavioral, or formal and less-formal, parenting education programs is not made in all scholarly work on parenting education (see Henderson, 1987 for a review; see also Becker, 1984; Donnelly, 1997; Kagan & Lowenstein, 2006).

of community-based interventions addressing multiple needs of at-risk, low-income families (e.g. health, poverty, education).

Most specifically, however, this paper focuses on parenting education programs for poor families with preschool-aged children in both advanced nations and less-developed countries (LDCs). Advanced nations are wealthier, have benefited the most from scientific and technological advances, and are able to maximize the use of technology in many applications; these include the United States, Canada, Western European countries, and many Far Eastern countries (Silberglitt et al., 2006). In addition to being burdened by unstable political systems, a lack of resources or infrastructure, and/or class disparities, LDCs are among the nations least able to maximize the use of technology; relevant LDCs include Fiji, the Dominican Republic, Georgia, Nepal, Pakistan, Egypt, Iran, Jordan, Kenya, Cameroon and Chad (Silberglitt et al., 2006).[2]

Significant socioeconomic differences exist between advanced and less-developed nations.[3] In developing nations, one billion people, or ten percent of the world's population, live on less than USD $1 per day. However, UNDP (2005) found that substantial progress has been made in eliminating child poverty in the Nordic countries (e.g. Denmark, Sweden, the Netherlands, Finland, Iceland, Norway), all of which have child poverty rates of less than five

[2] The level of development in some countries may also be considered "proficient," wherein countries are able to make simple advances or are poised to take advantage of modestly sophisticated technology applications but have not yet been able to implement these advances (e.g. Mexico, India, Turkey, Brazil, Colombia, Indonesia, South Africa and Chile) (Silberglitt et al., 2006).

[3] In the U.S., the official poverty threshold is frequently used to assess families' economic status. This absolute threshold, which was originally developed in 1959, is based on expected food expenditures (i.e., thrifty food basket) for families of varying sizes and adjusted annually for cost of living (Consumer Price Index). In other developed countries belonging to the Organization for Economic Cooperation and Development (OECD), poverty is measured relatively not absolutely. Relative poverty is measured against a threshold based on the median income of a country at any time. Many OECD countries use fifty percent of the median income (although in some cases, countries are using sixty percent of the median income).

percent. Child poverty rates in other populous Western countries range from five percent to 15 percent. The exception is the United States. Today, 17% of American children under age 6 live below the (absolute) poverty line—a level that makes children more likely to be poor than any other age group (Proctor & Dalaker, 2003) and largely surpasses rates of other industrialized countries. Despite a decline from 22% in 1993 (Proctor & Dalaker, 2003), child poverty rates in the U.S. are higher when using the relative poverty threshold: comparisons of relative child poverty rates among industrialized countries suggest that the U.S. outranks only Mexico, with approximately 30 percent of its young children living in poverty (UNDP, 2005).

While some poverty exists in most nations, LDCs, with over 300 million preschool-aged children, have commanded a great deal of attention. The international community actively supports programs that enhance the wellbeing and development of these children, most notably those preschool-aged children who live in poverty (UNDP, 2005). Often, these programs focus on the health and safety of young children (Pollitt, 1994); such is the case with parenting education, where the primary focus in LDCs has been placed on development of informal health and behavioral efforts (Boocock, 1995; Gomby et al., 1995). Fairly recently, however, many in the international policy community have begun to focus on enhancing the development and education of young children (rather than just focusing on health, as previously; Kagan & Lowenstein, 2006). This new focus is the catalyst for our paper. We are most interested in explicating formal and less formal program strategies that are being implemented (or might be implemented) in LDCs in order to provide parenting education for families of young children.

This paper is divided into four sections. First, we briefly discuss the links between parenting behaviors and child development in order to establish the need for parenting education

programs. Second, parenting education programs within the U.S. will be considered. In the third section of this paper, we discuss similar programs that have been implemented in developing countries. In the fourth section, we look to see which aspects of parenting education programs for low-income, at-risk families in developed countries might be worthwhile to pursue in LDCs; conversely, we also examine what developed countries might learn from LDCs with respect to parenting education programs. We hasten to add that that any programmatic transference between countries and cultures, whether it be from developing to developed nations or vice versa, demands careful consideration of goals, resource capacities, and, above all, cultural variation. Our aim is to extract valuable lessons for each country's consideration. Indeed, we believe that the most promising approaches are based on identifying and prioritizing goals of parenting programs within a specific community or countries prior to developing the actual content and delivery system of any parenting program.

The Influence of Parenting on Child Development

Associations between parenting behaviors and child development are well-established. While it seems intuitively obvious that parents and what they do matters, extant research has begun to unpack how much of parenting-child links are due to genetics, environment, or a combination of the two (Collins et al., 2000; Harris, 1999). This question does not arise when looking at child health outcomes, since young children, when provided adequate sanitation, nutrition, immunizations, and toxin-free settings, are relatively healthy. However, when considering educational and developmental outcomes, we need to know, for example, whether the amount that parents talk to or read to their children is associated with language comprehension or pre-literacy. If such links are not found, or are not robust, then parenting

programs focusing on language are unlikely to be effective. The same logic could be applied to emotional regulation and behavior problems; if harsh discipline is not linked to behavior problems, then parenting programs to reduce such practices, or replace them with other culturally-accepted strategies, would not result in changes in children's behavior.

Several reviews suggest that parenting behaviors, or changes in parenting behaviors, are associated with child development (Collins et al., 2000; Brooks-Gunn & Markman, 2005). While a thorough review of this evidence is beyond the scope of this paper, readers are encouraged to review experimental studies that attempt to isolate genetic and environmental influences on child development (Brooks-Gunn & Markman, 2005; Caspi et al., 2004; Duyme et al., 1999; Singer et al., 2004). Such studies have shown that within each society, certain parenting behaviors are more strongly linked with positive child outcomes. That is, while parenting dimensions may be universal, parenting behaviors and patterns are culture-bound (Harkness & Super, 2002). The goal of parenting education programs, historically, has been to assist parents in their efforts to prepare their children for life in their own cultural context. With the advent of globalization and new research, this focus may be shifting.

Parenting Education Programs in the United States

In this section, we review two types of parenting education programs described earlier: (1) structured and (2) informal. Exemplars of each program type will also be discussed, as well as the evidence for the effectiveness of these programs.

Structured parenting education programs. In this section, we review exemplars of three types of structured parenting education programs: universal, nurse home-visiting, and center based interventions with parenting education component.[4]

Universal parenting education programs. Parenting education programs within the U.S. have gained widespread acceptance in the past few decades. For example, while most U.S.-based home-visiting programs are not universal and target at-risk families (in which parents are poor, have little education, are young or are unwed), there are now several notable exceptions. One example is the Parents-as-Teachers Program (PAT), a parenting education program that is designed to begin prenatally or at birth and can continue through children's first three years. PAT parent educators have backgrounds in early childhood education, special education, elementary education, social work, counseling, and nursing. Parent educators receive feedback on a routine basis by supervisors trained in reflective supervision and meet on a monthly basis to discuss individual case management, identify professional development needs and share resources. During home visits, the parent educator reinforces positive parenting skills, provides learning activities, administers developmental screenings, and connects parents to resources. Each visit is usually 45-60 minutes in length, and visits are typically offered once a month. However, individual family needs are assessed during regularly scheduled supervision meetings and families may be visited more than once each month if there is an identified need. Evaluations of local PAT programs, targeting teenage mothers or low-income, minority populations, have demonstrated small and inconsistent positive effects on parent knowledge and

[4] Due to space constraints, highly structured family literacy programs with specific curricula and training standards for program staff (such as the Home Instruction for Parents of Preschool Youngsters program, HIPPY) and the Whitehurst program of dialogic reading) were not included. Readers are encouraged to consult Whitehurst et al. (1994) and Westheimer et al., (2003) for further information on these programs. In addition, readers are encouraged to review extant research on other less structured parenting education programs not included in this paper, such as the Comprehensive Child Development Program (CCDP; St. Pierre & Layzer, 1999).

behaviors, and no effects on child development outcomes (Wagner & Clayton, 1999). These analyses point to the importance of more intensive and comprehensive service provision for at-risk groups. An exemplar of a less formal universal parenting education program will be discussed later in this section.

Nurse Home Visitation Program (NHVP). Perhaps the most successful structured parenting education program in the U.S. is the Nurse Home Visitation Program (NHVP), designed by Olds and colleagues (2002) in the late 1970s and replicated done in the 1980s and 1990s. To date, the NHVP has been implemented in 30 states by their respective Departments of Health for low-income, at-risk families (Olds et al., in press). The primary goal of this program is to help mothers understand how their behavior influences not only their own health, but their babies health and development, as well. Since 1977, this program has been tested in three randomized controlled trials (Elmira, New York; Memphis, Tennessee; Denver, Colorado) with low-income European-American families, African-American families and Hispanic families. In each of the trials, women were randomly assigned to either home-visiting during pregnancy and the first two years of their children's lives or comparison services that consisted of some combination of free transportation for prenatal and well-child care and sensory and developmental screening and referral of children for potential problems (Olds et al., in press). This program is categorized as more structured because the "program model consists of a clear delineation of the target population, program content, methods of engaging and bringing about adaptive behavior change, and the importance of employing nurses in serving families during pregnancy and the early years of the child's life" (Olds et al., in press, p. 34). The NHVP was found to improve a host of maternal and child outcomes, including women's prenatal health-related behaviors, pregnancy outcomes, state-verified reports of child abuse and neglect, the

quality and safety of home environment, and maternal employment during pregnancy and the first four years of delivery (Olds et al., 2002). Effects of program participation were also larger for high-risk participants, or mothers who shared multiple risk factors (e.g. low-income, unmarried or young/teenage). Finally, study results suggested that home visits by paraprofessionals had no effect on women's prenatal health behavior, maternal life course, or child development. However, paraprofessional-visited mothers did exhibit a greater sense of mastery over life events, increase their sensitivity and responsiveness to children, and create home environments that were supportive of children's early learning.

Center-based interventions with a parenting education component.

The Carolina Abecedarian Program. The Carolina Abecedarian Program is an example of a highly-structured early childhood intervention with a formal parenting education component. The program evaluation was a carefully controlled study in which treated families received full-time, high quality child care and intensive parenting education via home visiting (about 55 low-income African-American families in the treatment and control group; Campbell et al., 2002). Intervention children participated in this educational intervention from infancy through age 5. The home-visiting component was offered weekly beginning after birth and twice a month through age 5. During the first three years of primary school, additional home visits were also provided. The teacher provided an individually tailored curriculum for each child, setting a target of at least 15 minutes per day of supplementary activities for the parents. This home-school teacher also served as a liaison between the ordinary teachers and the family and interacted with the parents and the teachers every 2 weeks. She also helped the parents deal with other issues to improve their ability to care for the child, such as finding employment, navigating the bureaucracy of social services agencies, and transporting children to appointments.

Abecedarian used a systematic curriculum consisting of educational “games” incorporated into the child's day. Activities focused on social, emotional, and cognitive areas of development but gave particular emphasis to language (specifically, Abecedarian curricula included Learning Games and Problem-Solving; see Sparling & Lewis, 1985 for more detail). Results from follow-up evaluations of the Abecedarian program effects suggest that participation in the preschool intervention was associated with long-lasting benefits for mothers and their children. For example, mothers whose children participated in the Abecedarian program achieved higher educational and employment status than mothers whose children were not in the program (Campbell & Ramey, 1994).

Project Care. Researchers at the University of North Carolina (Chapel Hill) also conducted an intervention called Project CARE (Carolina Approach to Responsive Education), which focused on isolating the effects of parenting education on child and adult outcomes during the preschool years (Wasik et al., 1990). Home visits during the fourth and fifth years depended on parents’ preferences. The intervention began one month after birth with home visits. Participants were randomly assigned to three groups: educational daycare plus home visiting/family education; only home visiting/family education; and no services/control group. The educational daycare component was organized according to a systematic developmental curriculum and emphasized intellectual and social development. The family education component was intended to help parents foster both the cognitive and social development of their child. Home visitors provided families with various supports, information, advice, and referrals. They emphasized problem-solving methods as well as components of the same basic child curriculum used by the daycare center. Home visitors were traditionally teachers, social workers, and nurses. In general, the largest impacts in cognitive development were reported for

the educational daycare plus family education/home visiting group. However, the family education component, whether combined with the educational daycare or alone, did not appear to have a significant impact on measured child and adult outcomes. Wasik and her colleagues (1990) hypothesized that the absence of effects could be due to delay in program initiation (i.e. CARE initiated home visiting services after pregnancy rather than earlier), as well as maternal characteristics (e.g. over 60 percent of mothers were first-time mothers and older, with an average age of 22 years). Moreover, home visitors for Project CARE received less intensive training and supervision that home visitors in more successful programs (see Powell & Grantham-McGregor, 1989). Finally, the number of home visits administered to families participating in Project CARE fell short of the design, averaging less than 3 per month (Wasik et al., 1990). The importance of these parenting education program characteristics on maternal and child outcomes will be discussed in greater detail later in this paper.

The Infant Health and Development Program (IHDP). Initiated in 1985, the IHDP served low birthweight, premature infants upon their discharge from the hospital (Brooks-Gunn et al., 1994; Olds et al., in press). It offered services during children's first three years of life, only. Infants and their families received medical, developmental, and social assessments and referrals for services such as health care, home visits, enrollment in a child development center and parent group meetings. Beginning at age 12 months, children attended child development centers for five days per week. Modeled after Abecedarian, the curricula for the home visiting and preschool components consisted of educational games and activities. Parent groups began meeting when infants were 12 months old. Parents met every two months and were provided with information on such topics as health, safety, and childrearing. However, the parent support groups were offered irregularly; in fact, relatively few parents attended these meetings. In

contrast, the home-visiting component of the IHDP was offered consistently. Home visits occurred weekly during the first year and biweekly for the next two years. During home visits, parents were provided with information on their child's health and development to facilitate self-identification of problems; they were also taught a series of games and activities to use to promote their child's cognitive, language, and social development.

At the end of the program, an experimental evaluation showed that IHDP had positively impacted cognitive and motor skills in children, particularly those from the most at-risk families and those who had been born at the "heavier" side of the low-birth-weight range (IHDP, 1990). Furthermore, positive IHDP impacts for heavier low-birth-weight infants were particularly long lasting (Brooks-Gunn et al., 1994; McCarton et al., 1997; McCormick et al., 2003). IHDP also had significant impacts on mothers, who created cognitively stimulating environments for their children, used less harsh discipline on boys, were more sensitive and responsive to their children, and were more likely to maintain employment (Smith & Brooks-Gunn, 1997; Spiker et al., 1993). In sum, while program effects were similar for children of both programs, more parenting effects were found for participants of the IHDP than for Abecedarian program. Researchers have attributed the magnitude of the effects of IHDP on children and mothers to program intensity—that is, the families who benefited the most in this study also received the most service (Brooks-Gunn et al., 1994**;** Hill et al., 2002).

Informal parenting education programs.

Early Childhood Family Education Program. An example of a less formal universal parenting education program in the U.S. is Minnesota's Early Childhood Family Education Program (ECFE). ECFE is a voluntary family support and education program for all families with children between the ages of birth and kindergarten entrance (Mueller, 1996). The program

is offered through the public school system to 360 school districts and the four existing tribal schools. While the Minnesota state legislature provides basic guidelines for program operation, the day-to-day content and process behind the program are determined by local practitioners to meet the needs of the communities they serve. Most programs contain the following components: parent discussion groups, play and learning activities for children, parent-child activities, home visits, early screening for potential children's health and developmental problems, community resource information for families and young children, and libraries of books, toys, and other learning materials (Mueller, 1996). The curriculum allows for flexibility in local community implementation and incorporates input from parents. An evaluation of the ECFE program involving over 700 families, with an additional 150 families participating in in-depth interviews, found that ECFE makes a positive difference in parenting approaches, parent-child relationships, and children's behavior (Mueller, 1996).[5] In interviews with staff members, parents indicated that they felt less isolated, gained new information on child development, and felt more integrated into their children's schools. Mueller (1996) also found that the approach utilized by ECFE was found to be effective with many different families (e.g. those with diverse demographic characteristics, different risk levels, and different amounts of social support).

The High/Scope Perry Preschool Project. The Perry Preschool program is an example of a parenting education program that employs less structured program characteristics. It assessed whether high-quality preschool programs could provide both short- and long-term benefits to

[5] This evaluation included use of outside evaluation experts working collaboratively with state and local ECFE staff in determining the evaluation purpose and design (Mueller, 1996). Twenty-eight ECFE staff members from the 14 school district ECFE programs involved served as data collectors. All site evaluators were trained in interviewing, observation, videotaping, and analysis. Site evaluators also participated in the pilot phase of the evaluation and helped revise data collection strategies. Support available to these evaluators included detailed evaluation guides prepared for each round of data collection, access to evaluation consultants for technical assistance, and evaluation workshops held four times during the evaluation. Training and technical assistance for staff involved in this study were provided by the outside evaluator and the state level program coordinator.

children living in poverty and at high risk of failing in school (Schweinhart & Weikart, 1993). Beginning in the 1960s, the study followed 123 African-American children in Ypsilanti, Michigan into adulthood. The youngsters participating in the study were randomly divided into a program group, who attended a half-day, high-quality preschool program and received home visits, and a no-program group, who did not receive any services. The home visiting component included 90-minute weekly home visits by certified public school teachers in order to discuss and practice activities for parents to carry out with their children. These visits were conducted throughout the 30-week school year. In addition, monthly parent group meetings with other parents facilitated by program staff both promoted the strengthening of parent-child relationships and increased parent involvement in the educational process. While participation in center-based child care and consistent contact with parents was required, the preschool curriculum did not include defined subject matter. Rather, teachers actively worked with students to extend learning activities to developmentally appropriate experiences. Children who participated in this program demonstrated a number of positive cognitive and behavioral outcomes (Schweinhart & Weikart, 1993). In addition, the effectiveness of the High/Scope Perry Preschool model extended to their parents. Study results suggested that participation in the weekly home visits and monthly parent meetings empowered parents by bringing them into full partnership with teachers in supporting their children's development (Schweinhart & Weikart, 1993).

In sum, experimental evaluations of both structured and less formal U.S.-based parenting education programs, can and do alter parental behavior (e.g. increase parental nurturance and warmth towards their children, reduce parental negativity and spanking toward their children; Brooks-Gunn & Markman, 2005). When examining the effects of center-based, home-based, or community-based parenting education programs, home-visiting programs seem to be most

successful in altering parenting behaviors. Very few home-based programs have significantly altered child outcomes (Brooks-Gunn & Markman, 2005; Olds et al., 2002), however, or, if they have, have not altered child outcomes consistently (the NHVP being a notable exception). Scholars have hypothesized several explanations. For example, most home visiting programs may not have been intensive enough to change behaviors of at-risk parents. A second explanation may be that the curriculum does not tap the most relevant dimensions of parent behavior. Finally, it is also possible that most home visitors do not have enough training in early childhood intervention. These factors will be discussed later in this paper. It is also important to highlight the cultural and contextual influences of parenting education programs within the U.S. Factors such as resource availability, a highly-devolved state structure, a large capacity for evaluation, and episodic funding have all played important roles in the development of parenting education efforts in the U.S.

Parenting Education Programs in Less-Developed Countries (LDCs)

In this section, we provide examples of programs in LDCs that parallel the types of programs developed for poor parents of young children in the U.S.: structured and informal. Because published work involving randomized experiments with parenting education programs in LDCs is relatively sparse, less can be said about the impact of these efforts, thereby limiting our discussion to select examples of program types (Powell & Grantham-McGregor, 1989; Victoria et al., 2003).

Structured parenting education programs.

Jamaica. Although preschool programs with parenting education components have been offered in many developing countries, relatively few have been rigorously evaluated. Powell and Grantham-McGregor (1989) conducted two randomized control trials of a home-visiting

program for poor, urban children in Jamaica. The goals of the intervention were to improve the development of young, poor children and teach their mothers how to be more effective parents. In addition, the program sought to improve the quality of maternal-child interactions and the self-esteem of both mothers and children. Care was also taken to ensure cultural relevance of the home-visiting curricula. For example, indigenous songs and games were included in prescribed parent-child activities. Additionally, all pictures and books were depicted using local scenes and people (Powell & Grantham-McGregor, 1989). The purpose of these two experiments was to determine (1) if varying frequencies of home visits had differential impacts on children's developmental levels and (2) the feasibility of integrating a home visiting program into the health care system of the Jamaican government. The intervention was conducted by health paraprofessionals who were supervised by nurses at local health care centers. Results from the first study suggest that the frequency of home visits was positively associated with children's development; that is, as instructional home visits increased from once a month to twice a month, the benefits of program participation for young children and their mothers increased as well.[6] In the second study comparing children and caregivers who were visited weekly versus those who were not visited, weekly-visited children showed marked improvements on two of the three developmental subscales (performance, hand and eye coordination), while children in the no-visit comparison group exhibited a decrease in scores on these subscales during the first year of the intervention. Homes in the weekly-visit group were also more conducive to children's learning and development; moreover, caregivers in this group were more responsive to their children's needs. In sum, the results of these two studies highlight the need for regular home visits if program benefits or changes in parenting are to take hold.

[6] While the test was not standardized locally, the hearing and speech subtest was modified for usage in Jamaica (Powell & Grantham-McGregor, 1989).

Turkey. An example of a successful, structured center-based early childhood intervention with a parenting education component in the developing world is the Turkish Early Enrichment Program (TEEP) (Kagitcibasi et al., 2001). TEEP consisted of a four-year intervention conducted in five low-income districts of Istanbul, Turkey with young children and their mothers (most of who had a primary school education, were from rural backgrounds, and worked in factory settings). By 2003, TEEP served over 240,000 mothers and was replicated in over 70 Turkish provinces (Kagitcibasi, 2005).[7] In its first year, the intervention focused on the social, emotional, and cognitive development of participating children (three to five years of age) and the childrearing attitudes, self-concepts, and world views of their mothers. In the second and third years of the intervention, training was provided to a randomly selected group of 90 mothers. (In total, 255 families participated in the study.) This training lasted 60 weeks and had two components: a cognitive component and a maternal support component. Results from an assessment conducted during the fourth year of the TEEP intervention pointed to significant differences in the cognitive development of treatment and control group children (as evidenced by Stanford-Binet IQ scores, school grades, standardized tests of academic achievement, and subtests of the Wechsler Intelligence Test; Kagitcibasi et al., 2001). Mothers also reported higher levels of self-efficacy because they were able to act as their children's teachers; specifically, they were able to interact more effectively with their children, be less punitive, and be more responsive and cognitively stimulating (Kagitcibasi et al., 2001). The second experiment on TEEP, conducted six years after the intervention ended, established long-term effects of program participation on children and their parents. For example, parental participation in the training program was associated with greater interest in their children's

[7] An extension of the TEEP program called the Mother-Child Education Programme (MOCEP) was recently developed and adapted for use with Turkish and other ethnic minority families in Europe and the Arab countries.

schooling and higher educational expectations for their children. In sum, TEEP illustrates how developmental science can contribute to the promotion of human capital and competence within LDCs and more advanced nations (Kagitcibasi, 2005).

Informal parenting education programs.

ICDS. With over 40,000 centers nationwide, India's Integrated Child Development Services (ICDS) comprise the world's largest integrated early childhood program (Gupta & Sharma, 2006). The program was conceived in 1975 and has since expanded with the technical and financial assistance of UNICEF and the World Bank despite great difficulties in adapting to the vastly different local circumstances found on the Indian subcontinent (Gupta & Sharma, 2006). The primary aim of this community-based program is to lay the foundation for proper physical and psychological development in children through positive changes in maternal attitudes and behaviors. However, ICDS does not achieve this goal through consistent home visits with trained visitors or prescribed curricula. Instead, ICDS provides a variety of center-based programs designed to support at-risk, low-income families: health, nutrition, and hygiene education to mothers and adolescent girls; non-formal preschool education for children aged 3 to 6 years; supplementary feeding for all children and pregnant and nursing mothers; growth monitoring and promotion; and linkages to primary healthcare services, such as immunization and vitamin A supplements (Gupta & Sharma, 2006). These extensive services are delivered to several million children and mothers by paraprofessionals in childcare center group settings called *anganwadis* (Gupta & Sharma, 2006).

Program evaluation work on the ICDS has found that, despite unevenness in the quality of services provided to participating children and their parents, the ICDS program has had a significant positive impact on the survival, growth, and development of young children. Results

also suggested that the ICDS program had a significant impact on the psycho-social development of both boys and girls (Gupta & Sharma, 2006). Chaturvedi and colleagues (1989) compared the effects of ICDS participation on children and their caregivers in one of the oldest project areas in India with non-participants in an adjacent area. The results of this experiment demonstrate that the ICDS program has indeed altered the attitudes of mothers towards their children's education, health, and development. However, mothers of ICDS children were more likely to have positive attitudes towards their child's health, education, and play behavior. Results from the child assessments showed that program children were significantly better than non-ICDS children in school attendance, academic performance in school examinations, and general behavior in school, as rated by their teachers. A follow-up national study on program effects confirmed these findings (Chaturvedi et al., 1989; Gupta & Sharma, 2006).

In sum, parenting education programs in LDCs have achieved success comparable to that of programs in developed nations by employing both structured and less formal approaches to service delivery. Program evaluation work has also pointed to significant operational challenges that mitigate the potential impact of early childhood interventions with parenting education components on young children and their primary caregivers (often mothers). For example, inadequate *anganwadi* worker skills, poor supervision of the *anganwadi* centers, equipment shortages, and weak monitoring and evaluation each pose substantial challenges for ICDS practitioners (Gupta & Sharma, 2006). Such challenges are not uniquely Indian and are commonplace among early childhood intervention programs in the Western world. In the next section, we discuss what practitioners of parenting education programs in advanced nations and LDCs can learn from each other.

Parenting education approaches and principles: What is transportable?

In this section, we reconsider the evidence presented from experimental evaluations of parenting education programs for poor families in the U.S. and developing nations to discern what lessons these countries can learn from each other. We discuss four program characteristics in particular: program intensity, program staffing, duration of intervention, and program curricula. We conclude this section with lessons that practitioners of parenting education programs in advanced nations such as the U.S. have learned from parenting education efforts in LDCs.

Program intensity. While experimental evidence does not point to exact answers on program timing and intensity, it is clear that programs targeting at-risk families in advanced or less-developed countries need to facilitate enough contact between parent educators and families to establish close working relationships. Intensive interventions pose a significant challenge for practitioners in LDCs, who often lack the staffing and funds necessary to create large-scale, comprehensive interventions for at-risk families who face multiple stressors. A notable exception to this is the Jamaican intervention reviewed earlier in this paper. There, researchers were able to manipulate program intensity to test the association between home visit frequency and child and caregiver outcomes; study results pointed to a positive association between these variables (Powell & Grantham-McGregor, 1989). Moreover, because the Jamaican program was implemented within an existing government health clinic, it stands as a cost-effective model for practitioners in other developing countries who seek to provide comprehensive services for low-income, at-risk families. More frequent home visits and lengthier programs permit home visitors to understand families' needs and help families change the living conditions and behavioral patterns that interfere with parent and child health (Olds & Kitzman, 1993). To this end, while a

modicum of intensity must be maintained for changes in parenting to take hold and maintain their effectiveness, parenting education programs targeting low-income, at-risk families should also be designed flexibly so that the frequency of contact can be adjusted to parents' needs.

Program staffing. Within the U.S., the effects of early interventions for low-income families are largest when such programs are staffed by nurses or other professionals. In a review of 19 U.S.-based home visiting programs aimed at improving the health and wellbeing of children born to low-income families, Olds and Kitzman (1993) found that, of the six programs that produced positive effects on children's intellectual functioning, five employed professionals or highly-trained staff such as nurses, professional teachers, or psychology graduate students. This does not mean that paraprofessionally-staffed programs have no chance of changing parenting behavior or producing positive effects; rather the evidence suggests that most paraprofessionally-staffed programs examined in randomized trials have consisted of narrowly-focused programs which are typically less successful (Olds & Kitzman, 1993; Olds et al., in press). In fact, Olds and his colleagues (in press) assert that because paraprofessionals employed by early childhood interventions are usually from the same community as the participants and share their social characteristics, they more readily empathize with the challenges facing low-income, at-risk parents.

Within LDCs, parenting education programs staffed by health paraprofessionals have also achieved positive results (Powell & Grantham-McGregor, 1989). For example, Powell and Grantham-McGregor (1989) found that, in the Jamaican intervention, community health aides sometimes did not understand the point of an activity or fully grasp the theoretical concepts behind the program. These problems were overcome only by constant supervision and training. These findings highlight the importance of partnerships between paraprofessionals and

professionals to reduce program costs and support capacity building efforts within LDCs and indeed more advanced nations. Because paraprofessionals are less costly than graduates of health and education programs, and because the cost of implementing or replicating successful parenting education programs on a broader scale is prohibitive in all nations, employing paraprofessionals in concert with some professionals may be an effective alternative for practitioners to consider (Powell & Grantham-McGregor, 1989).

Duration of intervention. The duration of interventions for low-income, at-risk children and their parents is important, and research within advanced and less developed nations has endorsed interventions through at least the first grade of primary school to avoid fade-out of effects (Olds et al., in press; Powell & Grantham-McGregor, 1989). For U.S.-based home-visiting programs, the most effective inception of early interventions appears to be during pregnancy. The majority of experimental evidence on home-visiting parenting education programs shows that frequent and regular home visits beginning prenatally and continuing through the first two years of life are more beneficial to low-income children and their parents. For example, in the Elmira trial of the NHVP, Olds and his colleagues (in press) tested the effects of program initiation during pregnancy versus initiation post-partum. Larger effects on maternal and child health outcomes were found for those mothers who participated in the intervention while pregnant (Olds & Kitzman, 1993). However, programs that only involve home-visiting during pregnancy do not produce significant developmental gains for children, nor do they produce short-term post-natal outcomes on caregivers (Weiss, 1993). For center-based interventions, however, program evaluations have not pointed to clear patterns in terms of the importance of program timing for child and adult outcomes. For example, programs such as the IHDP and Abecedarian, which provided participating children with full-day educational daycare, found significant positive

effects on children's cognitive outcomes. While effects were similar for children of both programs, greater parenting effects were found for participants of the IHDP than for Abecedarian program. One explanation may be the difference in program duration, as these programs did not begin at the same time; children were 12 to 14 months of age when they began IHDP and 6 to 8 weeks of age when they enrolled in Abecedarian's educational daycare program (Brooks-Gunn et al., 1994; Campbell et al., 2002).

Within LDCs (and, indeed, advanced nations such as the U.S.), the challenge is to find cost-effective ways to create long-term interventions that can be initiated during pregnancy and carried out through the beginning of primary school. One potential solution is gleaned from India's ICDS program. The overall annual program cost per child is low (U.S. $10 - U.S. $22/per year), perhaps because the intervention was implemented from existing medical and educational centers (Gupta & Sharma, 2006). Despite some difficulties adapting the program model to the needs of local populations across India, the ICDS serves as a model for practitioners in other LDCs who seek to develop comprehensive programs with a parenting education component that span infancy and early childhood and are inclusive of multiple domains (e.g. health and development).

Program curriculum. In their review of U.S.-based, home-visiting programs for low-income, at-risk families, Olds and his colleagues (in press) found that narrowly-defined programs were often less successful than more comprehensive programs with clearly specified curricula. However, program evaluations on programs within the U.S. have not been able to completely disentangle the effects of curricula and other program characteristics, such as program intensity, staffing, and duration on maternal and child outcomes. For example, though Olds and Kitzman (1993) found that U.S.-based home-visiting programs that failed to produce positive effects were narrowly

focused on some form of parenting education (e.g. parental cognitive stimulation of the child, provision of toys or books for the child, provision of social support and information for the parent when requested), they only examined programs staffed by paraprofessionals. Scholars agree that in order to draw firm conclusions on the effects of key program characteristics on maternal and child outcomes, a larger array of home-visiting and center-based interventions (wherein such characteristics can be manipulated) is needed.

Practitioners in both developing and developed nations have two options: (1) to adapt or modify existing program curricula from known interventions or (2) to develop curricula from the ground up. In either case, the resultant curricula must be culturally relevant and meet the needs of the population which it serves. The Jamaican intervention discussed earlier in this paper is a model for adapting Western materials and practices to suit the needs of the local population, while India's ICDS is an example of using existing resources within the communities to build programs from the ground up. A third alternative might merge the two approaches. Whichever strategy is used, we suggest that nations first think carefully about their national values and their national conceptions of childhood, along with what they want their young children to know and be able to do. Parenting education curricula may then be contoured to match resultant expectations for young children and their families.

Research on early childhood interventions targeting poor, at-risk families in both advanced and less-developed nations underscores the importance of parenting education, including the finding that the more intensely parents are involved, the greater the impact on parenting behaviors and the accrual of cognitive and noncognitive benefits to children. While the preponderance of rigorous program evaluation has been conducted on programs within the U.S. and other advanced nations, researchers and practitioners must take care to acknowledge

and respect work done in LDCs as we can learn much about parenting education from them. In conclusion, we offer five goals of successful parenting education programs: (1) honoring the local culture; (2) flexibility to mount programs despite far less than optimal resources; (3) a commitment to using parenting education as a mainstream delivery mode and a regard for parenting education that does not relegate it to a program "appendix"; (4) a clear recognition of the importance of parenting education even in societies where formal education is modest; and (5) a commitment to taking what exists (e.g. cultural variables, resource limitations) and creating interventions that have the potential to render direct assistance that significantly alters perspectives on and commitments to parenting. As parents of the world have much to teach and much to learn from one another, so do nations. A plurality of high quality, culturally-respectful parenting education programs is both a goal and a strategy to this end.

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