

FOCUS On EXCEPTIONAL children

Child Care for Infants and Toddlers with Disabilities and Chronic Illnesses

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The need for integrating infants and toddlers with special needs¹ and their peers without disabilities into regular child care settings has increased greatly within the last few decades. Public Law 99-457, Discretionary Programs for Handicapped Children, was reauthorized in 1991 as PL 102-119 and is now known as the Individuals with Disabilities Education Act (IDEA). Part H of that law, Services for Infants and Toddlers Birth through Two, specifically mandates early intervention programs in publicly funded, integrated settings for children with chronic conditions and disabilities. A dichotomy of sorts prevails because the majority of all child caregivers² in this country lack the specialized training needed to care for infants and toddlers with chronic conditions and disabilities in integrated settings with children who do not have disabilities. The solution lies in interdisciplinary programs relating to disabilities that are accessible to all child care workers. We describe one such program, First Start, later in this article.

RATIONALE FOR CHILD CARE

Currently the greatest demand in child care is for infant and toddler services (Gamble & Zigler, 1986; Hignett, 1989). Gotts (1988) defined this care as a system in which paraprofessionals care for children and, concurrently, help them with their developmental needs. However, little child care for infants is available (Children's Defense Fund, 1990, as cited in Petersen, 1990; Ewing, 1990). Certain factors come to bear on the present need for child care. Of all new mothers, 63% reenter the workforce within 6 months after they give birth. Between 1980 and 1985, 66% of all new jobs created by the American economy were filled by women, 4.6 million of whom had children ages 3 and younger—the most rapidly growing group in the workforce, according to Zigler (1983). In fact, an estimated 75% of all mothers with children under age 3 work outside the home (Barglow, Vaughn, & Molitor,

¹The terms *special needs*, *disabilities*, and *chronic conditions* are used as synonyms throughout this article, although disabilities and chronic conditions have certain medical distinctions.

²No definite term describes the adult who offers child care; therefore, we use *caregiver*, *paraprofessional*, *teacher*, *worker*, and like terms synonymously.

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1987; and Urban Institute, 1980, as cited in Vaughn, Deane, & Waters, 1985). In addition, the U.S. Census Bureau (1986, as cited in Pechenik, 1988; Stipek & McCroskey, 1989) estimated that in 1990, 48% of all American children had a one-parent home, attributable in part to the 50% divorce rate, and that 50% of these children were enrolled in child care as a result of their mothers' working.

Additional factors contribute to the increasing need for child care. Many more teenage women—45% of whom are unwed—are having babies. More U. S. adolescents, between ages 15 and 19—half a million in 1985—have babies than do teenagers in any of the other industrialized countries (Edelman, 1987; Stipek & McCroskey, 1989). Because illegitimacy has less stigma now, most of these single mothers are deciding to rear their children; only 5% select adoption as an alternative (Barret & Robinson, 1986; Granger, 1985). In addition, many women in their mid- and late-30s have opted to beat "the biological clock" by becoming mothers while remaining unmarried (Granger, 1985).

According to an Ad Hoc Day Care Coalition projection (1985, as cited in Eheart & Leavitt, 1989), four of five children under a year of age will have a working mother by the

year 2000. As a result, the need for more child care services is increasing as a growing number of mothers leave their traditional roles to enter the workforce (Bryant, Ramey, Sparling, & Wasik, 1985; Edwards, Logue, Loehr, & Roth, 1986; Ewing, 1990; MacKinnon & King, 1988; Osborne & Stauss, 1988; Peterson & Peterson, 1986; Schenk & Grusec, 1987; Stipek & McCroskey, 1989).

At the same time, the greater number of two-parent wage-earner families has created a demand for child care (Hoffman, 1989; Roopnarine & Hempel, 1988). Pechenik (1988) stated more specifically that nine of every 10 families now have two adult wage earners. Therefore, working parents—whether single or married—urgently need child care for their infants and toddlers.

Congress recently passed the Act for Better Child Care (ABC) and Part H of IDEA, which affects the lives of all infants and toddlers. As of January, 1993, however, regulations have not been written for either. ABC, the child care legislation Congress passed in 1990 after years of debate, provides only minimal financial assistance to upgrade current services by allowing tax credits to parents who utilize child care and sums of money to the states to be used for providing day care slots. Bernstein (1990) described the ABC legislation as inadequate. Referring also to ABC, Wishon (1990) criticized the continued reduction in federal social service entitlement programs to the benefit of defense programs.

Part H of IDEA, through provision of funds, encourages states to offer services to infants and toddlers with special needs. Gamble and Zigler (1986) argued that the federal government has a responsibility to provide good child care for infants and toddlers just as it already assumes responsibility for product and airline safety. Kontos (1990) asserted that government subsidies based on a sliding fee-for-service basis is essential and that the government must honor its mandate to legislate for the well-being of infants and toddlers. Congress enacted the Family and Medical Leave Act of 1993 (PL 103-3), which includes provisions for parental and maternity leaves and other family requirements. However, a comprehensive child care program, as called for by Ewing (1990) and Kontos (1990), is still lacking.

Economy and demographics indicate that child care has become a part of American life (Feeg, 1987). Pechenik (1988) urged that community, business, government leaders, and officials make a major effort to maintain child care services. Ewing (1990) and Shimon and Ferguson (1992) warned that services first must exist to a greater extent than they presently do.

KINDS OF CHILD CARE

Wong (1986) and Young and Zigler (1986) offered definitions for different types of child care:

FOCUS ON Exceptional children

ISSN 0015-511X

FOCUS ON EXCEPTIONAL CHILDREN (USPS 203-360) is published monthly except June, July, and August as a service to teachers, special educators, curriculum specialists, administrators, and those concerned with the special education of exceptional children. This publication is annotated and indexed by the ERIC Clearinghouse on Handicapped and Gifted Children for publication in the monthly *Current Index to Journals in Education (CIJE)* and the quarterly index, *Exceptional Children Education Resources (ECER)*. It is also available in microfilm from Xerox University Microfilms, Ann Arbor, MI. Subscription rates: Individual, \$27 per year; institutions, \$36 per year. Copyright © 1993, Love Publishing Company. All rights reserved. Reproduction in whole or part without written permission is prohibited. Printed in the United States of America. Second class postage is paid at Denver, Colorado. **POSTMASTER:** Send address changes to:

Love Publishing Company
Executive and Editorial Office
1777 South Bellaire Street
Denver, Colorado 80222
Telephone (303) 757-2579

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1. *Family day care*³ is provided to five or fewer children including children of the caregivers.
2. *In-home care* is offered in the home of a child or that of a caregiver, usually a relative.
3. *Center-based care* is provided for about 6 hours during the 24-hour day.
4. *Day care*, unlike facilities such as nurseries, is privately owned; federally funded; or associated with a neighborhood project, a corporation, or an educational center.

Family day care can be classified according to three types or models: In the *extended family model* caregivers bring infants and toddlers into the regular household routine and provide them with toys but do not plan activities around them. In the *extended family with planned activities model*, child-oriented activities and trips take precedence over household routines. Caregivers in the *minischool model* provide organized learning patterned after certain early childhood methods (Jones & Meisels, 1987). Other kinds of child care are *respite care* (Cobb, 1987) and *nanny care* (Curbow, 1990; Perlmutter, 1988); these are fairly recent types of *in-home care*.

Child Care Centers

Family day care accounts for 37% of the child care: in-home settings, 31%; organized care centers, 23% (Trotter, 1987). Corporate-based child care centers complement the child care centers that have existed for several decades. Noncorporate child care centers, usually located in or near residential areas, provide environments in which children learn and play (Gudemi, 1990; Honig and Lansburg, 1990; Minter, 1988).

In corporate and private child care centers alike, parents maintain control over their children and share knowledge with caregivers on how to rear and care for their children. This parental authority usually gives an impression of family unity (Berg & Reed, 1983; Hicks & Powell, 1983; Leu & Osborne, 1990).

In contrast to family care providers, center caregivers have more professional training (King & MacKinnon, 1988; MacKinnon & King, 1988; Leu & Osborne, 1990). Unlike those in family centers, children's activities are structured and group-oriented, and television watching does not substitute for caregiving (Clarke-Stewart, 1989; Goelman & Pence, 1987, as cited in King & MacKinnon, 1988; Leu & Osborne, 1990; MacKinnon & King, 1988; Smith & Greenberg, 1981). In addition, 33% to 48% fewer serious injuries occur to children in child care centers than at home or in other non-day-

care locations (Rivara, 1987; DiGuiseppi, Thompson, & Calonge, 1989, as cited in Snow, Teleki, & Cline, 1992).

Family Care Centers

Wong (1986) wrote that during the last three decades, with more and more mothers working, fewer children are being cared for in in-home settings and more children are attending centers. At variance with Wong, the following said the major source of child care for infants and toddlers is family care, not center care: Endsley & Bradbard (1987), Frank & Lang (1987), Granger (1985), Halpern (1987), Jones & Meisels (1987), Krause-Eheart & Levitt (1986), Leu & Osborne (1990), McCartney & Galanopoulos (1988), Nelson (1990), and Stipek & McCroskey (1989). Approximately 5.5 million children of varying ages receive family care (Kontos, 1988). An estimated 2 million children ages birth through 3 are in family care (Granger, 1985). They comprise part of the 30% of infants and toddlers in child care (Sells & Paeth, 1987).

Although it is the most frequently utilized form of child care, family child care is the most criticized by parents and authorities (Colbert & Enos, 1975; Eheart & Leavitt, 1989; Endsley & Bradbard, 1987), for major reasons. Three fourths of these family care centers do not have licenses or are not required by state law to have licenses (Halpern, 1987; Leu & Osborne, 1990; Machida, 1990; Stipek & McCroskey, 1989). Lack of licensing and its concomitant restrictions means that most of these centers fail to meet minimum safety regulations (Leu & Osborne, 1990; Machida, 1990). The homes lack any educational and planned components for the children (Colbert & Enos, 1975; Eheart & Leavitt, 1989; King & MacKinnon, 1988; Machida, 1990). The caregiver rather than the child is the central figure in the family-care setting (Colbert & Enos, 1975; King & MacKinnon, 1988). Jones and Meisels (1987) stated that the personality of the family caregiver—usually a woman—reflects itself in the family-care setting. Most paraprofessionals do not have any child development training (Leu & Osborne, 1990; Machida, 1990). These criticisms were refuted by Kontos (1988). Eheart and Leavitt (1986), however, admonished that, because this form of child care significantly impacts millions of infants and toddlers, family caregivers must improve the quality of care they provide to children.

Employment-Based Child Care

The current increase in corporate, city, and university child care centers near workplaces illustrates the importance of having centers to which parents may bring their children (Hicks & Powell, 1983; Pechenik, 1988). Child care programs provided by employers have increased (Lydenberg, 1986). In 1978, 110 programs were provided; by 1982, 600;

³The term *day care*, now considered obsolete, has been replaced by the terms *child care* and *early education*. We use "day care" in this article because of its prevalence in the literature.

and by 1985, 2,500 (Lydenberg, 1986). The number has grown since then. Stipek and McCroskey (1989) stated that 2,500 (the number reported by Lydenberg) of 6 million companies in this country is extremely low.

About 2,000 employers, such as the Zale Corporation and the Polaroid Corporation, offer on-site centers that have alleviated much of the stress associated with combined work and child rearing that many parents, especially mothers, experience (Dillin, 1986; McNeely & Fogarty, 1988; Meredith, 1986). The number of corporate centers, however, remains relatively small considering that more than 44,000 companies in the United States employ more than 100 workers each (Lydenberg, 1986). The deterrent to developing more child care programs evolves from the delusion on the part of government and business leaders, as well as the public, that the traditional family form still prevails (Meredith, 1986). This perception of the "traditional family" is an extension of a similar view promulgated after World War II, when women were encouraged to relinquish their jobs and return to their homes and children (Ackerman-Ross & Khanna, 1989; Ewing 1990; Garwood, Phillips, Hartman, & Zigler, 1989; McNeely & Fogarty, 1988).

Hicks and Powell (1983) and Ewing (1990) asserted that businesses, in the public and private sectors alike, have responsibilities for providing child care to their employees. Pardeck, Pardeck, and Murphy (1987) urged that labor unions get involved in securing child care for their members. Advantages beyond just financial benefits accrue to the companies and the families. Families commute to and from work together. Mothers return to work much sooner after the births of their infants and have opportunities to nurse these infants. During breaks or lunch hours parents visit the centers, eat and talk with their children and ascertain from center paraprofessionals how their children are doing (Weissbourd, 1985). This milieu enables parents to work more efficiently during the day, fostering on-the-job productivity and satisfaction (Gotts, 1988; Hicks & Powell, 1983; Pardeck, Pardeck, & Murphy, 1987).

On-site centers also facilitate parents spending more time at work and fewer days at home with sick children. As noted, the United States now has a family leave policy, the Family and Maternal Leave Act of 1993. But its impact upon employment and parenting presently remains a moot point. *Fortune Magazine* (as cited in Pechenik, 1988) reported on a Bank Street College of Education survey indicating that more than 40% of parents lose at least one day of work every 3 months because of a child's illness; 10% lose 3 to 5 days in that time period. Although some sick child care centers exist, most child care centers do not permit a child with an infectious illness to attend. Other centers have a special area where a sick child is cared for by a caregiver (Bell et al., 1989; Fredericks, Hardman, Morgan, & Rodgers, 1986; Sterne, 1987; Wilson & Bess, 1986). The Act should alleviate some problems associated with illness and work. In addition to less

absenteeism, on-site centers deter worker tardiness and promote job concentration (Hicks & Powell, 1983). Work and family life are closely related, according to Pardeck, Pardeck, and Murphy (1987), who stated that by incorporating child care into the workplace, employers can help avert the social fragmentation that now threatens the familial system. Ewing (1990), however, reported that corporate child care policies have not remained current with societal changes.

Respite Care

Respite care programs for parents of children with special needs have appeared during the last few decades (Mallory, 1986), because of the movement toward deinstitutionalization and the concurrent emphasis on family care of children with disabilities (Betz, Unger, Frager, Test, & Smith, 1990; Mallory, 1986). The number of such programs, however, remains inadequate (Schell, 1982).

Although respite care programs vary in structure, they serve several purposes (Cobb, 1987; Mallory, 1986; Rimstidt, 1983):

1. They ease the strain on family relationships.
2. They allow parents to strengthen their marriage ties.
3. They permit parents to get involved in their communities.
4. They give parents a break from the stress associated with caring for children with special needs.
5. They allow parents to spend more time with siblings without disabilities.

Cohen (1982, as cited in Mallory, 1986) discerned certain benefits that accrue from respite care, including stronger family unity, more optimism about the future, better attitudes toward the children with disabilities, and better parental coping abilities.

The several respite care models range from family child care outside the children's homes to state institutions that offer respite care for former residents (Upshur, 1982, as cited in Mallory, 1986). Most respite care takes place within the child's home (Mallory, 1986), but many families form co-ops (Ferguson, Lindsay, & McNeese, 1983); these parents take turns caring for children with special needs. In addition, co-ops provide a vehicle for exchange of information and support among families.

Nanny Care

Nannies have been a tradition in Great Britain for nearly a century. Introduced into this country more than a decade ago, nannies provide a unique type of *in-home care* for children and their parents as an alternative to traditional kinds of child care (Bell, 1983; Perlmutter, 1988). Consisting mainly of women in the 18- to 25-year-old group, these nannies are

trained in nanny schools and community colleges, focusing primarily upon the complete care of children without disabilities (Perlmutter, 1988). Depending upon the schools they attend, some nannies also learn about children with special needs ranging from Down syndrome to allergies. They know about the grieving process parents go through upon learning their child has a disability or a chronic illness and working toward acceptance (A. Entsminger, M.A., R.N., personal conversation, January 31, 1991).

The major differences between caregivers and nannies involve their salaries and perquisites (discussed later in this article). Nannies earn between \$14,000 and \$18,000 a year and receive board and room, workers' compensation, and medical insurance (Bell, 1983; Perlmutter, 1988). Often they travel with the children and their parents. Only a fraction of the working mothers with infants and toddlers with special needs (Urban Institute, 1980, as cited in Vaughn, Deane, & Waters, 1985) can afford nannies. Extensive research of the literature reveals little, if any, material about the number of nannies presently caring for infants and toddlers with special needs.

THE NEED FOR CHILD CARE OF INFANTS AND TODDLERS WITH DISABILITIES

Chronic conditions and disabilities affect 10–15% of all children (Chang & Teramoto, 1987; Hagen, Anderson, & Barclay, 1986; Hayden & Beck, 1982). More than 11 million children have chronic conditions (Betz, Unger, Frager, Test, & Smith, 1990; Hobbs, Perrin, & Iveys, 1985). Yet, almost as a direct contradiction to these percentages and numbers, no true definition of this population of children exists (Butler, McManus, & Newacheck, 1986). Life-threatening conditions such as spina bifida and cystic fibrosis are at one end of the continuum, and hay fever and other mild conditions at the other (Butler et al., 1986; Walker, 1986).

Children with serious special needs usually require early intervention programs (McCollum, 1987). These programs—often adjuncts of integrated child care (Grant, 1988)—consist of required and applicable developmental services intended to meet the needs of infants and toddlers with disabilities and chronic conditions (Garwood, Fewell, & Neisworth, 1988; Turnbull & Turnbull, 1990). These services represent the multidisciplinary areas of physical, cognitive, language and speech, psychosocial, and self-help skills (Garwood et al., 1988). Specially trained professionals forming a multidisciplinary team provide the services and also do the requisite assessments.

The developmental outcomes of children with chronic conditions and disabilities are influenced greatly by the kinds of care they receive (Dyson & Dyson, 1981). Care received during the first two years of life is particularly important because it directly affects infant development (Beyerbach, 1982; Cluff, 1985; Dyson & Dyson, 1981; Eheart & Leavitt, 1986;

Krajicek, Robinson, & Moore, 1989; Schell, 1982; Weissbourd, 1985). This care must include play—the major part of all social, emotional, cognitive, language, cultural, and physical development, and abilities of infants and toddlers with special needs, just as it must for children without disabilities (Anastasiow, 1981; Bryant, Ramey, Sparling, & Wasik, 1987; Cassidy, Kimes-Myers, & Benion, 1987; Guddemi, 1990; Honig & Lansberg, 1990; McLean & Hanline, 1990). Moss and Brannen (1987) and Belsky (1984, as cited in Eheart & Leavitt, 1989) have determined that child care experiences with continuity assume major importance in the children's development. Child care also serves as a forceful indicator of the later social development of children (Howes & Hamilton, 1992).

The demand for child care for infants and toddlers with disabilities and chronic conditions continues to grow. Despite the steadily increasing need, however, little child care for infants with special needs exists (Fewell, 1986, as cited in Petersen, 1990). Even fewer child care providers offer early intervention programs in conjunction with day care (Klein & Sheehan, 1987).

Several rationales for the growing demand are proposed. Specifically cited reasons include realization of the need for and the benefits of early intervention for children with special needs (Beckman & Burke, 1984; Dunst et al., 1987, as cited in Kontos et al., 1987; McLean & Hanline, 1990; Sells & Paeth, 1987). Early integration is important also because it aids the normalization process at a young age (Bagnato, Kontos, & Neisworth, 1987). And early intervention serves as the initial preparation for integration as adults (Mallory, 1986; Turnbull & Turnbull, 1990). These rationales reflect social and economic changes as well as medical and technological advances in the United States (Gamble & Zigler, 1986).

Because of these advances, approximately 10 to 15% of the infants and toddlers ages birth through 3, who, prior to the last two decades, would have died, have disabilities and chronic conditions (Barret & Robinson, 1986; Chang & Teramoto, 1987; Ensher, 1986; Hagen et al., 1986; Hayden & Beck, 1982; Scheer & Groce, 1988; Trahd, 1986; Yoos, 1987). Of these, 1 to 2% have severe disabilities (Chang & Teramoto, 1987; Crowley, 1990; Hagen, Anderson, & Barclay, 1986; Hayden & Beck, 1992). As a result, approximately 1.5 million working parents require child care for young children with disabilities and chronic conditions (Fewell, 1986, as cited in Bagnato et al., 1987; McLean & Hanline, 1990; Urden, 1987). The number of these infants and toddlers exceeds 5 million (U.S. Bureau of Census, 1987, as cited in Crowley, 1990). Approximately 40 to 50% of the mothers of infants and toddlers with special needs have jobs outside the home (Klein & Sheehan, 1987). These mothers usually work because of the added financial burdens associated with children who have special needs (Bagnato et al., 1987; Betz et al., 1990; Crowley, 1990;

Hartley, White, & Yogman, 1989; Scarr, Phillips, & McCartney, 1989; Urden, 1987).

INTEGRATING INFANTS AND TODDLERS WITH SPECIAL NEEDS INTO CARE CENTERS

In 1975 Neisworth and Madle (as cited in Bagnato et al., 1987) were among the first professionals to stress the importance of integrating children with disabilities and chronic conditions into regular child care with children without disabilities. Now IDEA, Part H, requires integration into care centers whenever appropriate and ideates the viability of offering early intervention services within child care centers (Miller, 1992; Turnbull & Turnbull, 1990). Delineation by the U.S. Department of Education clarifies the concept:

[I]t is important that efforts be made to provide early intervention services in settings and facilities that do not remove the children from natural environments (e.g., *day care centers* [italics added], or other community settings). Thus it is recommended that services be community-based, and not isolate an eligible child or the child's family from settings or activities in which children without handicaps would participate. (*Federal Register*, 1989, p. 26313).

IDEA further defines this least restrictive environment (LRE):

Where group settings are utilized, the infant or toddler with a disability should be placed in groups with age peers without disabilities, such as playgrounds, *day care centers* [italics added], or whatever typical setting exists for infants and toddlers without disabilities . . . [and] to the maximum extent appropriate, [is] provided in natural environments, including the home, and community settings in which children without disabilities participate. (Walsh, 1992, p. 5)

Integration of children with special needs is important because it furthers the essential socialization process that enables children to interact with peers without disabilities in diverse settings (Berk & Berk, 1982; Crowley, 1990; Grant, 1988; Hagen, Anderson, & Barclay, 1986; Miller, 1992; Odom & McEvoy, 1990; Pardeck, Pardeck, & Murphy, 1987). Grant suggested the importance of this social integration results from a tendency to reject people who deviate from the norm. Even infants, as they learn about their world and the world around themselves, tend to classify others as "like me" and "not like me" (Begley & Carey, 1981; Fortier & Wanlass, 1984). Therefore, children without disabilities seem to acquire stigmatizing tendencies while they are still quite young (Crowley, 1990; McLean & Hanline, 1990; Seigelman, Miller, & Whitworth, 1986). Early integration mitigates against this rejection, and differences become acceptable (Crowley, 1990; Fortier & Wanlass, 1984; Grant,

1988; Ipsa & Matz, 1978, as cited in Demchak & Drinkwater, 1992; Radonovich & Houck, 1990, as cited in Demchak & Drinkwater, 1992).

Children with special needs also must acquire social interaction skills so reverse stigmatizing does not occur (Strain, 1984, as cited in Demchak & Drinkwater, 1992). Structured planning is required to achieve integration and interaction between children with and without disabilities (Beckman & Burke, 1984; Grant, 1988).

Sells and Paeth (1987) wrote about the growing realization of the need for and the benefits of early integration for children with disabilities. Still, we have made little progress in integrating infants and toddlers with special needs into regular child care centers, although the number of these children continues to increase along with the number of their parents who work (McLean & Hanline, 1990; Odom & McEvoy, 1990; Rule, Killoran, Stowitschek, Striefel, & Boswell, 1985).

In a 1982 survey of 70 day care centers, Berk and Berk (as cited in Krajicek et al., 1989) learned that only 58% of the centers expressed any interest in accepting children with special needs. Many of these centers had requirements that effectively excluded infants and toddlers with disabilities and chronic conditions; 23 centers required that children be toilet-trained, and 10 that children be mobile. Only 13 of the 70 centers had no admittance requirements. From results of another study, Crowley (1990) delineated major factors that preclude acceptance of children with disabilities and chronic conditions: deficient facilities and equipment, inadequately trained staff, nonexistent support services, and fear of children with disabling conditions emanating from staff and other parents and children.

In a survey of 26 centers, Chang and Teramoto (1987) found that only 5 evinced any interest in accepting children with special needs. Of the total 1,590 children enrolled in these centers, only 25 children with special needs attended—1.3% of the total enrollment. Chang and Teramoto concluded that children with disabilities and chronic illness probably are not served adequately by child care centers.

Even so, benefits derive from effective integration. Survey findings indicate that providing services for children with special needs and children without disabilities in integrated settings proves time- and cost-effective; children without disabilities serve as role models for children with special needs; and caregivers, parents, and children without disabilities learn about chronic conditions and disabilities (Berk & Berk, 1982; Crowley, 1990; Demchak & Drinkwater, 1992; Galloway & Chandler, 1977, as cited in Petersen, 1990; Neisworth & Madle, 1975, as cited in Bagnato et al., 1987). Petersen perceived that integration provides a demanding, complex environment—an advantage—for infants and toddlers with special needs; without such an environment, children with disabilities often fail to acquire the needed sensory interaction. To be ef-

fective, though, integration must be structured (Crowley, 1990; McLean & Hanline, 1990). Fewell and Oelwein (1990) and Odom and McEvoy (1990) believe that child care in integrated settings offering quality programs that focus upon developmental gains and skills acquisition obtain these benefits.

Although effective intervention is beneficial to infants and toddlers with and without special needs, caregivers must show discretion. Too much stimulation resulting from large, chaotic groups often has negative effects on children (Honig, 1988; Honig & Lansberg, 1990).

One major deterrent to integrated child care that has received little emphasis in the literature relates to barrier-free facilities, whether in the homes of family caregivers or in centers (Crowley, 1990; Demchak & Drinkwater, 1992; Guddemi, 1990; Jambor, 1990; Shimoni, MacLean, & MacWilliams, 1990; Monahan & Fusco, 1982). Another problem concerns transportation for infants and toddlers with certain special needs. Odom and McEvoy (1990) alluded to these problems.

SHORTAGE OF AND NEED FOR SPECIALLY TRAINED CAREGIVERS

Interaction of caregivers with infants and toddlers having special needs is important to the children's developmental outcomes (Beyerbach, 1982; Dyson & Dyson, 1981; Jacobson & Owen, 1987; Ramey & Baker-Ward, 1982, as cited in Beckman & Burke, 1984; Schell, 1982; Schwartz, 1983; Weissbourd, 1985). The basic relationship between infants and their caregivers develops during infancy (Ainsworth, Blehar, Waters, and Wall, 1978, as cited in Klein, 1983; Honig & Lansberg, 1990). Thus, workers must strive to enhance the developmental potential of all children, and particularly that of infants and toddlers with special needs (Cherry & Carty, 1986).

Caregiver Attitudes

Many child care workers, however, are afraid to care for children with disabilities (Berk & Berk, 1982; Crowley, 1990; Roessler & Bolton, 1978). Some have negative attitudes toward these children that are difficult to change. Studies indicate that caregivers' attitudes correlate positively with their perceptions of success in caring for infants and toddlers with disabilities (Gillis-Olson & Olson, 1985; Jones & Meisels, 1987; Phillips & Whitebook, 1986; Roessler & Bolton, 1978; Rule et al., 1985; Safilios-Rothchild, 1977). Research also indicates that attitudes change with difficulty (Aldridge, 1990). According to Klein and Sheehan (1987), negative attitudes are a significant impediment to successful integration. Donaldson (1980) and Safilios-Rothchild (1977) said the fears will persist until they are dispelled through various techniques.

Reasons for negative attitudes of paraprofessionals range from discomfort and anxiety about disabilities (Crowley, 1990; Hahn, 1988; Jambor, 1990; Routberg, 1986) to previous ineffective integration efforts, feelings of incompetence (Machida, 1990), and lack of adaptive materials and toys for infants and toddlers with special needs (Crowley, 1990; Rule et al., 1985). Caregivers' attitudes and behaviors directly affect the integration of the children into centers and homes with infants and toddlers without disabilities (Rule et al., 1985). Positive attitudes by providers is important to effective integration (Odom & McEvoy, 1990). Workers may feel more comfortable with some types of disabilities than others (Miller, 1992; Odom & McEvoy, 1990). Caregivers often refuse to accept infants and toddlers with special needs because of the additional responsibilities equated with their care (Berk & Berk, 1982; Moore, 1985). After training, however, caregivers often say that children with disabilities should be integrated into child care centers and that integration is beneficial to both infants and toddlers with special needs and to their counterparts without disabilities (Gillis-Olson & Olson, 1985; Strain, 1990, as cited in Demchak & Drinkwater, 1992).

Caregiver Training and Education

Just as most child care workers need instruction in altering negative attitudes toward children with disabilities, they require training to care for infants and toddlers with special conditions (Beckman & Burke, 1984; Berk & Berk, 1982; Chang & Teramoto, 1987; Crowley, 1990; Klein & Sheehan, 1987; Phillips & Whitebook, 1986; Rule et al., 1985). Jones and Meisels (1987) referred to the paucity of research about caregivers and their training. Currently the training focuses on offering support services to caregivers and on elevating their sense of professionalism and reducing their isolation (Jones & Meisels, 1987; Machida, 1990). Child care workers need firsthand experience with a variety of community resources, including health care providers (Crowley, 1990). This knowledge helps facilitate identification and treatment of children with disabilities (Aldridge, 1990; Anastasiow, 1983; Klein & Sheehan, 1987). Many caregivers, however, are in rural areas where they lack ready access to information and health professionals (Machida, 1990).

Child care workers also need special training in detecting and handling possible child abuse (Russell & Clifford, 1987). According to Madden-Barber (1983), when caregivers participate in this training, they become more involved in preventive activities such as parental education and support and referral of high-risk families. Abuse often occurs because parents have inappropriate expectations for children with special needs. When the children fail to meet these expectations, some parents become abusive (Beyerbach, 1982; Hopper & Zigler, 1988; Schell, 1982).

As stated, care during the first two years of life is important because it relates to developmental outcomes (Beyerbach, 1982; Dyson & Dyson, 1981; Eheart & Leavitt, 1986; Honig & Lansburg, 1990; Krajicek et al., 1989; Schell, 1982; Weissbourd, 1985). Paraprofessionals function with the children in interdependent roles as their "playmates, teachers, managers, and caregivers," and caregivers provide children with "emotional and physical caregiving" (Howes & Hamilton, 1992, p. 859). Caregivers must understand and work with the handicapping conditions and the levels of severity. They also must have a general understanding of the various medical and health problems and the physical adaptations that some children must make (Walker, 1986). And they must be prepared to work with the parents (Beckman & Burke, 1984; Gargiulo & Graves, 1991; Klein & Sheehan, 1987; Miller, 1992).

Approximately 95% of paraprofessionals have acquired their knowledge about child development primarily from their own experiences of growing up and in parenting. Much of this knowledge comes from opinion rather than fact (Eheart & Leavitt, 1989). The National Day Care Study survey (Allen & Catron, 1990; Ruopp, Glantz, & Coelen, 1979, as cited in Klein & Sheehan, 1987) indicated that caregivers have an education ranging from 12 to 16 years; many states require only a high school diploma and minimal additional training for these caregivers. Paraprofessionals have average intelligence. One-eighth have a learning disability, 2% are gifted or talented in certain areas, 75% have average communication skills, and approximately 50% read at or below the 12th-grade level (First Start, 1988). The National Child Care Staffing Study (Whitebook, Howes, & Phillips, 1989, as cited in Petersen, 1990) indicated that the amount of formal education caregivers acquired established the most significant elements of their performance: more sensitive, less harsh, less detached.

Turnover and Work Satisfaction

Child care workers have a higher turnover rate than any other profession because the workers are underpaid and undervalued (Curbow, 1990; Haverkamp & Everts, 1992; Kaplan & Buéscher, 1986; Lyon & Canning, 1990; Machida, 1990; Marshner, 1988; Miller, 1992; Modigliani, 1988; Moss & Brannen, 1987; Nelson, 1990; Pettygrove, Whitebrook, & Weir, 1984; Phillips & Whitebook, 1986; Willer, 1990). According to Nelson (1990), the turnover rate of center and family caregivers continues to increase; Haverkamp and Everts (1992) termed the rate "epidemic" (p. 28). The average caregiver earns \$3,500–\$6,000 a year. Such inadequate recompense lures only marginal workers, according to Pardeck, Pardeck, and Murphy (1987). These negative factors directly impact program quality and produce lower developmental

achievement levels in socialization and language skills in the children (Willer, 1990). In separate studies, Curbow and Nelson found that family providers experience job dissatisfaction because the children's parents fail to take relationships with them seriously. Curbow cited additional stressors such as underutilization of abilities, low social status, and work overload.

A study by Stremmel and Powell (1990) refuted some of the statements by Pardeck, Pardeck, and Murphy (1987), Curbow (1990), and others. Stremmel and Powell indicated that workers do experience satisfaction from personal growth opportunities, a sense of accomplishment, satisfactory work hours, and respect from others. Another study (Whitebook, Howes, Phillips, & Pemberton, 1989b, as cited in Haverkamp & Everts, 1992) showed that child care staffs found fulfillment in their work by furthering the growth and development of children, establishing positive relationships with co-workers, and maintaining job autonomy. Other studies indicated that job fulfillment in child care settings is related to positive interactions among paraprofessionals and directors (Jorde-Bloom, 1988; Powell & Stremmel, 1989; Whitebrook, Howes, Darrah, & Friedman, 1982, all as cited in Haverkamp & Everts, 1992).

Nevertheless, a growing shortage of qualified caregivers prevails (Allen & Catron, 1990). Many workers are not licensed as required by law (Odom & McEvoy, 1990). Many child care centers and home care providers hesitate to accept children with disabilities and chronic conditions because the caregivers lack licensing and training in specific areas (Baginato, Kontos, & Neisworth, 1987; Gillis-Olson & Olson, 1985; Odom & McEvoy, 1990).

Machida (1990) and Snow (1982) wrote, in separate publications, that family caregivers in particular seem intimidated by in-service and other types of training. Yet, educating paraprofessionals about the care of infants and toddlers with disabilities and child center staffing with specially trained workers can greatly enhance the lives of these children and their families. Child care programs that provide educational and associated health services and extend intervention programs have been prescribed by therapeutic diagnostic centers (Clements, Smith, Spain, & Watkeys, 1982; Machida, 1990). The child care center offers many opportunities for constructive interaction. With the support of educational community health personnel and social and developmental service providers, child care workers can be effective providers of intervention (First Start, 1985; Gould, 1990; Klein & Sheehan, 1987).

FAMILY INVOLVEMENT

Jones and Meisels (1987), Klein and Sheehan (1987), Pardeck, Pardeck, and Murphy (1987), and Schwartz (1983) cited the plethora of journal articles referring to the need for child care, the effects of child care, the quality of child care,

and the concurrent dearth of articles about the child care needs of children with disabilities and chronic conditions and the effects of child care upon the families. The importance of parental involvement remains undisputed (Shimoni & Ferguson, 1992).

Prior to the birth of a child with a disabling condition or a later diagnosis, most parents have had little or no direct experience with these conditions (Darling, 1988; Routberg, 1986). Their exposure has been derived from the media, strangers, and stereotypes (Darling, 1988). They tend to think it happens only to other parents (Fortier & Wanlass, 1984). Yet, parents can have significant roles during the developmental period of infants and toddlers with special needs (Bagnato, Kontos, & Neisworth, 1987; King, 1990; McCollum, 1987; Miller, 1992). Before parents can become effective resources, however, they must overcome their own fears and know the goals their children can attain (Darling, 1988; Hobbs, Perrin, & Iveys, 1985; Routberg, 1986; Schell, 1982).

Schell (1982) cited factors affecting the adjustments of parents to their children's disabilities as (a) severity of the disability, (b) active family support systems, and (c) active external support systems. These factors are interdependent and significantly affect the ways families interact (Hobbs, Perrin, & Iveys, 1985; Schell, 1982). Darling (1988) wrote that most parents, after they and their children have achieved normalized lives, become committed. These parents assert themselves, get involved in formal and informal groups, and challenge the authority of professionals.

Much of the research does not indicate whether parents of children with special needs differ from other parents on the bases of age, race, and socioeconomic status (Vincent & Salisbury, 1988). Other data show that in families earning \$10,000 or less a year, approximately 26.3% of the children have activity restrictions, whereas only 8.5% of those whose parents earn \$35,000 or more yearly have limitations (1983-85 National Health Interview Survey by LaPlante, as cited in Kraus, 1989). These data imply that differences do exist.

Most parents know what type of child care their children with special needs require (Gargiulo & Graves, 1991). They also recognize that early intervention has long-lasting effects (Cartwright, 1981; Demchak & Drinkwater, 1992). Parental involvement in the care of children with disabilities entails (Bagnato et al., 1987):

- ☐ support
- ☐ information
- ☐ parent/child relationship
- ☐ social activities
- ☐ an educational partnership process

This involvement can be achieved through individual and group parent meetings, including social gatherings and other activities and written and oral communications (Bagnato,

Kontos, & Neisworth, 1987; Shimoni & Ferguson, 1992). Young and Zigler (1986) suggested establishing a partnership between parent and caregiver, giving parents the *right* [italics added] to take part in all aspects of the child care program and mandating progress reports from caregivers to parents. Despite the need for and the benefits derived from parental involvement, many parents tend not to commit themselves (Clements et al., 1982; Cluff, 1985).

Part H of IDEA calls for an individualized family service plan (IFSP) that delineates long-range developmental goals and supplementary short-term behavioral objectives for each child (discussed later in this article). The parents are expected to become active in planning these goals and objectives (Cook, Tessier, & Armbruster, 1987, as cited in Petersen, 1990; Gargiulo & Graves, 1991; Petersen, 1990). As more early intervention programs are established within child care settings, parents of infants and toddlers with disabilities must perceive the principles upon which their commitment and involvement are based.

Dedicated parents of infants and toddlers with special needs know that good child care is essential because:

1. It lessens the conflict between working and rearing children with disabilities.
2. It offers time for parents to find themselves again (Schell, 1982).
3. It allows them to reintegrate into the community.

IDEA, PART H, AND SPECIAL NEEDS PROGRAMS

Child care for infants and toddlers with chronic conditions and disabilities must take into consideration the physical setting, the group size, the child-staff ratio, and the staff training requirements (Kaplan & Buescher, 1986). The most important qualities, however, are the promotion of healthy psychological development and the well-being of these children through proper interaction with caregivers (Shimoni, McLean, & MacWilliams, 1990).

IDEA, Part H, mandates that infants and toddlers with disabilities and chronic conditions age birth through 2 receive early intervention in all areas of their lives, including integrated child care (Fewell & Oelwein, 1990). Aldridge (1990) and Hutchins and McPherson (1991) wrote about ways in which child care providers and centers can help children with special needs. Part H "allow[s] for a system of differential funding for states to 'provide rewards for those States that are on schedule and at the same time allow States that would have dropped out of the program to stay in the program'" (Walsh, 1992, p. 6).

Through Part H, states receive funds to implement early intervention services for children with chronic conditions and disabilities age birth through 2. The legislation is an exten-

sion of earlier laws that provided for children age 3 and older. The new legislation provides early intervention services to infants and toddlers with developmental delays as defined by the various states and to children exhibiting conditions that may result in such delays. In addition, states can offer services to infants and toddlers who do not yet manifest delays and to children thought to be at risk for delays. Part H requires comprehensive, multidisciplinary evaluations of all infants and toddlers with developmental delays, case management, and development of individualized family service plans (IFSPs); all of these services emanated originally from mandatory state lead agencies and interagency councils and filter down through service delivery system programs (Aldridge, 1990; Hutchins & McPherson, 1991; Walsh, 1992).

According to Hartley, White, and Yogman (1989), states can effectively and efficiently utilize Part H funds for the implementation of early intervention programs by combining them into integrated child care settings. This implementation is advantageous to agencies charged with overseeing the programs. It proves to be practical as well to caregivers, parents, and intervention educators and therapists.

Early intervention services are expensive (Linder, 1983, as cited in Petersen, 1990); Child care is costly, too; yet, as noted earlier, caregivers receive minimal wages (Curbow, 1990; Kaplan & Buescher, 1986; Machida, 1990; Marshner, 1988; Modigliani, 1988; Moss & Brannen, 1987; Nelson, 1990; Pettygrove, Whitebrook, & Weir, 1984; Phillips & Whitebook, 1986; Willer, 1990) and usually lack formal training (Ruopp, Glantz, & Coelen, 1979, as cited in Klein & Sheehan, 1987). This results in the high turnover rate in caregivers (Pardeck, Pardeck, and Murphy, 1987), limiting the quality of care (Willer, 1990). Even so, the quality can improve if workers acquire the requisite expertise needed to participate in early screening and "child find" (Petersen, 1990).

PL 99-457, now known as IDEA, is multidisciplinary in nature and has the following purposes (Gallagher, 1989):

1. Enhancing the development of infants and toddlers with special needs and minimizing their potential for developmental delay.
2. Reducing the educational costs to society by minimizing the need for special education and related services after infants and toddlers with special needs reach school age.
3. Minimizing the likelihood of institutionalization of individuals with disabilities and maximizing the potential for their independent living in society.
4. Enhancing the capacity of families to meet the special needs of their infants and toddlers.

By adhering to these purposes, several programs, funded by various sources, offer early intervention training to child care workers that enables them to care for children with special needs in integrated settings. One program, the *Educational*

Home Model Outreach Project (EHM), at the University of Montana in Missoula, identifies and trains caregivers in rural areas. Mulligan, Green, and Morris (1990) cited the *EHM* areas in which workers receive individualized training: "(a) developing integrated programs for children, (b) meeting individual needs of children, (c) arranging the physical environment, (d) managing health and safety issues, (e) involving parents and families, (f) encouraging community coordination, (g) effective management of an integrated program" (p. 3).

Kontos et al. (1987) described *Project Neighborcare*, developed to provide intervention services to infants and toddlers with disabilities in family home care settings. By providing training, consultation, and supervision in six workshops, caregivers augmented their child care knowledge and skills. According to Kontos, this project offers a viable solution to early intervention services in day care environments.

The *Family Day Care Training Project (FDCTP)*, a 3-year federally funded project, had the major goals of instructing caregivers about the characteristics of children with special needs, strengthening interactions among providers and all of the children under their care, increasing caregivers' knowledge about developmental milestones, and planning integrated environments and activities for children with disabilities and those without (Jones & Meisels, 1987). Child care workers participated in the FDCTP four-part training component that included: (a) 13 half-day workshops on information relating to general child development and to children with special needs (b) biweekly home visit consultations by a special services coordinator, (c) meetings with other providers and professionals, and, (d) involvement of several children with special needs in the training. Participants in FDCTP significantly improved after training, but caregivers' attitudes toward disabilities did not change much. FDCTP proved most effective with child care workers who had previous child development training (Jones & Meisels, 1987).

In the *Technical Assistance Program (TAP)*, day care center providers received training from an early intervention agency (Klein & Sheehan, 1987). The agency assumed responsibility for planning, implementing, and evaluating center staff development. Caregivers learned how to adapt their present methods to accommodate children with special needs and supplement rather than replace the existing early intervention programs. According to Klein and Sheehan, TAP offered individualized training that benefited children with disabilities and their families. TAP also was advantageous to the children without special needs because caregivers generalized the information they acquired to all the children, sought advice from TAP consultants, and thought of themselves as being more professional than they had prior to TAP training.

Bruder, Diener, and Sachs (1990) reported on the development and operation in Connecticut, Delaware, and Mas-

sachusetts of federally funded, statewide programs that provide special needs child care training and service. Caregivers in the Connecticut programs receive free training from the university through workshops, small-group sessions, and individualized aid. The program teaches how to integrate children with disabilities and chronic conditions into regular child care settings. It focuses upon projects that allow expansion of early intervention programs into community child care centers. In Delaware, family caregivers and centers obtain special services training in the care of infants and toddlers with special needs. Child care workers in the Massachusetts centers get training from state-subsidized special educator or developmental specialist liaisons. The workers receive the same types of training as caregivers do in the Connecticut and Delaware programs.

The success of early intervention in an integrated child care center has been demonstrated (Joan Gitchell, R.N., M.S., personal correspondence, February 4, 1991). The JFK Child Care Center at the University of Colorado Health Sciences Center (UCHSC) in Denver provides care to infants and toddlers with and without special needs. These children, whose parents are university faculty and staff members and students, receive day care in the same setting. Early intervention educators, nurses, therapists, and child care workers cooperate to evaluate and meet the needs of each child in the Center. Paraprofessionals and professional health care specialists receive additional training when necessary.

FIRST START

The First Start program has received grants from the University of Colorado Health Sciences Center, School of Nursing; the U. S. Department of Education, Office of Special Education and Rehabilitative Services; and the Colorado Department of Education, Special Education Services Unit. First Start provides preservice training in the care of infants and toddlers with chronic conditions and disabilities to caregivers in both public and private child care facilities. The relevance of First Start as it relates to IDEA is supported through the requirement by law that more and better services be provided for infants and toddlers with special needs. The need for these services has been documented by the benefits to be derived from early intervention by knowledgeable caregivers (Trohanis, 1986). Although they may not recognize the importance of their roles, child care paraprofessionals trained through First Start in the care of infants and toddlers with special needs from birth through age 3 can effectuate the purposes of IDEA.

- Developed at the UCHSC School of Nursing in Denver, First Start, and its concomitant system of dissemination to localities nationwide, offers high quality education with built-in quality control through participant and course evaluation measures.

This program makes a significant contribution toward increasing the number of paraprofessionals prepared to give direct care to infants and toddlers with special needs (First Start, 1985).

In addition, certain benefits have accrued to caregivers who completed the university medical center-based interdisciplinary course, as well as the care and home centers. These benefits include (First Start, 1985):

1. An increase in knowledge of disabling conditions and chronic conditions, methods of providing direct care and intervention services, emergency measures and special procedures, and skills in communicating with professionals and parents.
2. An increase in the number of accessible and available care facilities staffed by qualified child care workers.
3. An expansion of child care facilities to include children with special needs.

First Start consists of a two-tiered program. At the first level, professionals from their state agencies meet at UCHSC in Denver for a week-long workshop utilizing a training-of-the-trainer model. They learn how to coordinate the 45-hour First Start course for child care workers in their own states. At the second level, the professionals initiate First Start training courses for caregivers in their states.

First Start is unique in its interdisciplinary approach, which includes seminars and laboratories. The seminars utilize interactive lectures and media including slides, transparencies, and tapes. The latter contains audiovisual aids to complement the curriculum, including videos on positioning children with special needs, home oxygen therapy, and cardiopulmonary resuscitation, and a slide series on adaptive equipment. The laboratories implement hands-on clinical training incorporating adaptive aids for various disabling conditions. Students are encouraged to visit agencies or settings in which children with special needs are cared for.

The curriculum content deemed essential for providing optimal care to children was identified by parents, providers for infants and toddlers with special needs, professionals from various disciplines, and a wide variety of agencies. The professionals involved in teaching First Start classes include nurses from community health agencies and local hospitals; social workers from family service agencies; early childhood educators who work with special needs children; physical, occupational, and speech therapists; and physicians. They inform students about the services provided by their agencies, expanding students' awareness of available community services.

In addition to personal input from the aforementioned professionals, the curriculum contains subject matter from the fields of dentistry, psychology, and nutrition. Course content also covers normal and delayed growth and development, disabling and chronic conditions, special care needs of children with disabilities and chronic conditions, communication, and

family dynamics (Feeg, 1987), along with special training in detecting and handling child abuse and neglect. These problems are more common in families with children who have chronic conditions and disabilities than in families with children without special needs (Beyerbach, 1982; Russell & Clifford, 1987).

Infants and toddlers who have conditions such as visual and auditory impairments, cerebral palsy, spina bifida, cleft lip and palate, and asthma, or who need oxygen therapy, and their parents participate in First Start classes when appropriate, to provide hands-on interactions and communication between students and children. The parents discuss the special needs of their children, the community resources they have used, and the difficulties they have encountered. They also demonstrate some of the special procedures and positions their children need, and they answer student questions.

This interaction between parents of children with special needs and First Start students has been one of the most successful aspects of the course and probably has had the most influence in favorably changing student attitudes toward children with disabilities. This parent-student interaction helps caregivers see how they can work together with parents and support one another in providing quality care for children.

First Start Competencies

According to Anastasiow (1983), child care services for children from birth to age 3, given by specially trained workers, greatly enhance the lives of infants and toddlers with disabling conditions and their families. These child care programs offer training in how to utilize educational and associated health services and thus extend intervention programs that have been prescribed by therapeutic diagnostic centers.

Through First Start, child care workers learn that quiet babies with developmental delays need to be talked to and factually stimulated rather than being ignored and described as "good" babies. The students are taught about the need to frequently change the physical position of babies with low muscle tone and about effective behavior modification techniques to use with children who have hyperactivity and retardation (Young & Zigler, 1986).

These experiences enable child care workers to advise parents about where to find help when normal infant growth and development are suspect. Identification and treatment of children with disabling conditions is facilitated by interaction among professionals and child care providers (Anastasiow, 1983). With the support of the educational community and health personnel such as pediatric nurses and others, child care workers can competently intervene. A continuing network is necessary to maximize intervention strategies that affect infant and toddler care needs (Krajicek et al., 1989).

After completing First Start training, caregivers have acquired competency in four program objectives: (a) direct

care, (b) teaching and communication, (c) coordination with interdisciplinary services, and (d) advocacy. Student participation in First Start enables caregivers to offer emotional support to infants and toddlers with special needs and their families. It also helps alleviate the fears and uncertainties that many child care workers have about caring for children with chronic conditions and disabilities.

First Start Handbook

The *Handbook for the Care of Infants and Toddlers with Disabilities and Chronic Conditions* (First Start, 1991) evolved from the Student Manual used by First Start students. Rather than being a textbook, the *Handbook* is a resource for information about specific needs and situations pertaining to children with special needs. Intended primarily for caregivers who have little training in the care of infants and toddlers with disabilities, the *Handbook* also is a convenient reference for professionals, parents, and others involved with children and their care. It has four major sections: (a) human development, (b) chronic conditions, (c) care needs, and (d) communication and community support.⁴

SUMMARY

Societal changes have created a need for more infant and toddler child care and for a national child care policy. Little infant care exists. Moreover, most federal officials remain uncommitted to an inclusive child care program.

Various kinds of child care include *family day care*, *in-home care*, *center-based care*, and *day care*, among others. Three family day care models are the *extended family model*, the *extended family with planned activities model*, and the *minischool model*. Two recent kinds of in-home care are *respite care* and *nanny care*.⁵ The most widely used but most consistently criticized form is family day care.

Ten to 15% of all children have chronic illnesses and disabilities. The care they receive, especially infants during the first two years of life, directly affects their developmental outcomes. Unfortunately, little child care and even fewer early intervention programs in conjunction with child care exist for infants with special needs. These programs are important because they prepare for integration as adults. For approximately two decades child care experts have promulgated the advantages of integrating infants and toddlers with special needs into caregiving settings with nondisabled children. Before passage of IDEA, few centers accepted children with special needs despite their growing numbers and increasing needs for child care. Integration promotes socializa-

⁴The *Handbook* can be purchased from Learner Managed Designs, 2201 K West 25th St., Lawrence, KS 66047.

tion and discourages prejudices. Successful integration, however, requires caregiver-structured interaction.

Few center facilities accept children with special needs, primarily because most child caregivers lack the requisite training to care for these children. At the same time, the turnover among paraprofessionals has reached epidemic proportions. Underpaid and undervalued, they also contend with underutilization of abilities and lack of cooperation from parents. Most workers acquire their training through personal experiences. Further, most do not want to care for infants and toddlers with special needs, they feel stress from special in-services, and they lack knowledge of early intervention services. Yet, caregivers play important roles in children's development during the first two years of life, and the kinds of care all children receive depend upon the training and education of their caregivers.

Although the involvement of parents in the child care of children with special needs is known to be important, it does not occur until parents have adapted to the children's disabilities. Not all parents adjust. Those who do become committed to all facets of the care of their infants and toddlers with special needs. These parents realize the benefits that they and their children alike derive from quality child care.

Part H of IDEA mandates that children with special needs receive early intervention programs. With proper networking of multidisciplinary health professionals and child care paraprofessionals, these programs can be incorporated into child care centers and homes in which infants and toddlers with special needs are integrated with children without disabilities and in which caregivers have received training in the care of children with chronic conditions. Several model programs demonstrate the viability of combining early intervention programs into child care and the benefits that accrue to all participants from integrated child care. A university medical center-based interdisciplinary course, First Start, consists of two tiers. At the first level, agency professionals meet for a week-long workshop incorporating a training-of-the-trainer model. The professionals then initiate, at the second level, training courses for caregivers in their states. The uniqueness of First Start lies in its interdisciplinary approach. Interaction between parents of children with special needs and First Start students positively changes attitudes toward children with disabilities. Caregivers obtain competency in four program objectives: direct care, teaching and communication, coordination with interdisciplinary services, and advocacy.

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