II. DEVELOPMENT OF ADOPTED CHILDREN WITH HISTORIES OF EARLY ADVERSITY

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This chapter first presents a review of research on the development of adopted children, focusing on meta-analytic evidence and highlighting comparisons between adopted children with and without histories of early adversity. Some methodological issues arising from this literature are considered as well. Second, 7 longitudinal studies of adopted children's development are described, and the convergence of findings across the longitudinal studies and with the cross-sectionally based meta-analytic evidence is discussed. Third, the role of the adoptive family in supporting adopted children's development is explored.

Adopted children's social-emotional and cognitive development may be affected by preadoption adversities, including neglect during institutional care. But their development is also likely influenced by postadoptive processes and experiences, such as adoptive family characteristics, interactions within and outside the family, and the child's growing understanding of being abandoned and being adopted. The special circumstances of children with adverse early experiences who later are adopted into nurturing and stimulating families have brought about research projects aimed at answering several relevant questions. How do institution-reared children develop after adoption compared to adopted children without institutional experiences and typically developing nonadopted children? Are there differences between mildly deprived and severely deprived adopted children? Which adopted children show developmental delays and problems and which children are resilient and competent? What do longitudinal adoption studies reveal? Does

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the structure and function of the adoptive family make a difference? A summary of the main empirical findings addressing these questions is presented below.

The chapter begins with a review of research on the development of adopted children, focusing on the meta-analytic evidence and highlighting available comparisons among adoptees with and without severe deprivation (for a historical review of adoption research, see Palacios & Brodzinsky, 2010). We consider a number of methodological issues arising from this literature including the overlap between international adoption, institutional care, and severe adversity as well as a number of historical changes in adoption policy and practice that may have introduced cohort effects. In the second section of the chapter, seven longitudinal studies of adopted children's development are described, and the convergence of findings across the longitudinal studies and the cross-sectionally based meta-analytic evidence is discussed. In the third section of the chapter, the role of the adoptive family in supporting adopted children's development is explored.

Meta-Analytic Studies

In the domain of *attachment*, a meta-analysis (17 studies; N= 772 adopted children) found a significant risk of insecure attachment assessed in observational procedures (Strange Situation Procedure or Attachment Q-sort [AQS]) for children adopted after their first birthday (Van den Dries, Juffer, Van IJzendoorn, & Bakermans-Kranenburg, 2009). A risk of insecure disorganized attachment was also found regardless of age at adoption. The reader is referred to Chapter III for an extensive description of attachment and indiscriminate social approach.

In the domain of *cognitive development*, a series of meta-analyses were conducted to examine intelligence (IQ), school achievement, language, and learning problems in adopted children (62 studies; N=17,767 adopted children; Van IJzendoorn, Juffer, & Klein-Poelhuis, 2005). Adopted children were not at risk with respect to intelligence. Children adopted after their first birthday showed significantly less optimal school achievement than children adopted in their first year of life (see Chapter VI for a discussion of developmental timing effects). A significant effect was also found for preadoption adversity (neglect, malnutrition, abuse): Studies including adopted children with severe deprivation showed larger delays in school achievement than studies including adopted children without such deprivation. For language development, a small but significant negative effect was found. Adopted children also showed significantly more learning problems.

In another series of meta-analyses among 15,790 adoptees, international adoptees showed more *behavior problems* than nonadopted comparisons, but effect sizes were small (Juffer & Van IJzendoorn, 2005). International adoptees

showed fewer total, externalizing, and internalizing behavior problems than domestic adoptees. Recently, a direct comparison of international and domestic adoptees showed that, relative to internationally adopted adolescents, domestic adoptees had higher odds of having externalizing problems (Keyes, Sharma, Elkins, Iacono, & McGue, 2008). The meta-analysis (Juffer & Van IJzendoorn, 2005) also showed that adopted children were overrepresented in mental health services, while international adoptees were less often referred (moderate effect size) than domestic adoptees (large effect size).

In the meta-analysis (Juffer & Van IJzendoorn, 2005), international adoptees with severe preadoption adversity showed more externalizing behavior problems than international adoptees without such backgrounds. Contrary to expectations that adopted children's behavior problems would increase when they start questioning their adoption and identity during adolescence (Hawk & McCall, 2010; Hjern, Lindblad, & Vinnerljung, 2002; Verhulst, Althaus, & Versluis-den Bieman, 1990a), the meta-analysis revealed that international adoptees presented fewer total behavior problems in adolescence compared to early and middle childhood. The meta-analysis also found that children who had been with their adoptive family for more than 12 years showed fewer externalizing and total behavior problems than children who had been with the family for less than 12 years. The higher risk in middle childhood may point to the influence of a shorter exposure to the adoptive environment or to specific issues particularly salient for this phase of development. For example, because of their different looks and skin color, internationally adopted children may have greater awareness of their adoptive status at an early stage and this may result in concerns and behavior problems in middle childhood (Brodzinsky, 2006; Juffer, 2006).

In the domain of *self-esteem*, a series of meta-analyses were completed involving 88 studies and 10,977 adoptees (Juffer & Van IJzendoorn, 2007). No difference in self-esteem was found between adopted and nonadopted children, and this was equally true for domestic, international, and transracial adoptees. Preadoption adversity was not related to the effect sizes of the studies. The hypothesis that adoptees struggle with low self-esteem particularly during adolescence was not supported: there was no difference between the self-esteem of adopted adolescents and nonadopted adolescents.

The meta-analyses described above included domestic as well as international adoptees and tested for differences between those two groups (Van IJzendoorn & Juffer, 2006). If no differences were found, the two groups were combined. If possible, the meta-analyses tested the moderating influence of "adversity." This was based on evidence in the published study of severe preadoption neglect, abuse, and malnutrition in at least 50% of the sample. This moderator is a proxy variable for the most severe experiences of deprivation, such as the extreme rearing circumstances in Romanian and Russian institutions some years ago. Furthermore, although in many studies

in the meta-analyses preadoption adversity mainly consisted of institutional deprivation, the two constructs are, of course, not identical.

Therefore, an exploratory analysis was conducted for the meta-analysis of behavior problems to estimate whether the results converged for the two categories of "presence of severe adversity" and "adopted from institutional care." Very similar outcomes were found for the two categories, even though the two moderator categories did not include exactly the same studies. For example, the Verhulst et al. (1990a) study was not included in the institutional care category, whereas it was included in the adversity category. This exploratory analysis suggests that the moderator "severe adversity" used in the meta-analyses provides an adequate estimation of having a background of deprived or institutional care in adopted children in terms of the limited range of outcomes studied.

As an aside, it should be noted that several meta-analyses cited above included many studies and consequently considerable "fail-safe numbers" (Rosenthal, 1991). For example, many studies would be needed to change the significant combined effect size for behavior problems into a nonsignificant outcome. This implies that simple replications of general studies on behavior problems in similar populations of adopted children will not add new knowledge to the existing body of research. A more promising avenue will be to further elaborate and scrutinize these rather broad domains of child functioning for (subsamples of) adoptees. As an example, some studies (Gunnar & Van Dulmen, 2007; Kreppner et al., 2007) suggest that the two broadband categories for behavior problems—externalizing and internalizing problems—may not fully capture or may even obscure relevant issues for (postinstitutionalized) adopted children. Particularly attention problems (which are subsumed in the externalizing band) may be elevated in adopted children who experienced severe early adversity, leading to higher incidence of the diagnosis of attention-deficit/hyperactivity disorder (ADHD) (Audet & Le Mare, 2010; Sonuga-Barke & Rubia, 2008). In the same vein, recent studies on adopted children's cognitive development (e.g., Colvert et al., 2008; Tarullo, Bruce, & Gunnar, 2007) indicate that they may have elevated levels of problems with theory of mind or other aspects of executive functioning. Furthermore, the developmental timing of the emergence of different types of problems requires further scrutiny with some suggesting that both early onset and later onset problems may be seen in adopted children (Sonuga-Barke, Schlotz, & Kreppner, 2010).

Generations of Adopted Children and Adoptive Parents

Topics that may complicate the interpretation of adoption research findings are the uncertainty of the backgrounds of many adopted children and the existence of cohort effects. Particularly in the early days of international

adoption (1960s-1980s), children were often adopted to new families overseas without much information about their backgrounds. In many cases, reports with medical and social-emotional information on the child (including whether the child had been in institutional care and for how long) were lacking or, in some cases, appeared to be incorrect (e.g., incorrect ages were reported, several children were reported to have an identical background). Nowadays, adoption agencies and adoption regulations and policies (Chapters VII and VIII), for example, the Hague Adoption Convention (the Hague Convention of May 29, 1993 on Protection of Children and Co-operation in Respect of Intercountry Adoption), emphasize that all available information about the child's background should be provided when a child is placed for adoption. Thus, one might assume that the information about adopted children's backgrounds has been reported more accurately during the last decades. However, an additional issue is that much of the background information available to researchers is based on parent report with unknown reliability.

Moreover, adoption practices and generations of adopted children and adoptive parents have changed since more information and pre- and postadoption services have become available. Nowadays adoptive parents may offer more adequate and adapted care to the children they adopt compared to the earlier days when support and counseling were not yet available. Of course, countries may vary substantially in what they (can) offer to (prospective) adoptive parents (see below).

With respect to the adopted children's background, more preadoption foster care as an alternative to institutional care appears to be used now for prospective adopted children (e.g., in China; Van den Dries, Juffer, Van IJzendoorn, & Bakermans-Kranenburg, 2010) compared to the early years of international adoption (i.e., 1970s and 1980s). Still, from many countries, the majority of the children likely experienced institutional care before adoption. For example, in two recent surveys on more than 1,200 children adopted from China (mean age at assessment 7 years) and more than 400 children adopted from India (mean age at assessment 10 years), 89% of the children from China and 95% of the children from India had been in institutional care for some time (Juffer & Tieman, 2009).

Another example of historical change pertains to the countries from which adoptees originate (see also Selman, 2009a). Some countries (e.g., Indonesia, Bangladesh) ended international adoptions in the 1980s, whereas Romania and China did not start international adoption on a large scale until the 1990s. Other countries have continued to place their children for international adoption since the 1950s (Korea) and 1970s (e.g., India). Although the numbers of international adoptions from some countries are now decreasing (Selman, 2009b), a greater percentage involve special-needs adoptions. The changing scenarios of international adoption may imply large heterogeneity

in children's backgrounds and experiences of institutionalization. For example, children from Romania, Ukraine, and Russia usually experienced high levels of institutional deprivation (Chapter I) and have greater risk for delays and difficulties after adoption (see the longitudinal studies below), whereas children adopted from Korean institutions generally show adequate or even quite good outcomes (e.g., Andresen, 1992; Frydman & Lynn, 1989; Kim, 1995; Stams, Juffer, Rispens, & Hoksbergen, 2000), suggesting less severe institutional adversity. Of course, other factors may also be relevant here, such as genetics, pre- and perinatal care, possible selection of healthier children for international adoption, and varying reasons for relinquishment or abandonment (e.g., unwed motherhood in Korea vs. extreme poverty, alcohol abuse, or delinquency in Romania, Ukraine, and Russia). The longitudinal studies of widely varying groups of adoptees described below offer an additional opportunity to examine adopted children's development after a broad range of experiences before adoption.

Changing Experiences

Children adopted from Romanian or Chinese orphanages before or near the time that media reports (e.g., the Dying Rooms, 1995) from these institutions shocked the world likely experienced the severest of institutional deprivation including nutritional, cognitive, social, and emotional deprivation, potentially affecting all aspects of their development. To date, many orphanages have improved their nutritional and health care (partly based on income resources from international adoptions), and children adopted from these improved institutions may show better physical growth and health (Van den Dries et al., 2010; Van Schaik, Wolfs, & Geelen, 2009) and more optimal development than children adopted from institutions in the past. Nevertheless, deficits in care—particularly the provision of stable and sensitive caregiving—remain issues of concern. It may be hypothesized that in the earlier years of international adoption, more institutions were included at the first level (global deprivation) identified by Gunnar (2001); probably, nowadays more are included in the second (good physical care, poor stimulation, and relationships) or even third levels (good physical care and stimulation but lack of adequate and stable relationships). The reader is referred to Chapter I for an extensive description of institutional care and its effects on child development.

The meta-analyses described earlier attempted to control for possible cohort and generation effects by using year of publication—coded into decades—as a moderator, but no significant differences were found in the pertinent analyses. This may suggest that although countries, policies, and services have changed throughout the years, the meta-analytic outcomes provide an adequate estimation of adopted children's development. Perhaps an

exception should be made for the most recent years, since the latest studies (e.g., Gunnar & Van Dulmen, 2007) have not been included in the meta-analyses on cognitive and behavioral adjustment (both published in 2005). For the future, two contrasting trends may be hypothesized. First, due to improved preadoption care (e.g., more foster care instead of institutional care, improved institutional care) and greater availability of postadoption services (e.g., more support and help available for adoptive families), adopted children will have better prospects for development than in the past. But second, due to changing policies in the countries of origin (e.g., increased numbers of domestic adoptions and foster care placements consistent with principles of the Hague Adoption Convention), special needs and older children may constitute a larger percentage of children available for international adoption. This may result in more difficulties and delays in internationally adopted children studied in the future than in the past.

Longitudinal Studies

Although cross-sectional studies and meta-analyses shed light on adopted children's development, valuable additional information can be obtained from longitudinal adoption studies. In contrast to meta-analysis in which the same participant can be included only once, multiple assessments of the same participants are examined in prospective longitudinal studies. Therefore, longitudinal studies allow for evidence on how adopted children in specific samples and subsamples (e.g., from various countries of origin; adopted in earlier or later years of international adoption; predominantly children adopted from institutional care or not) develop from (early) childhood into adolescence and adulthood. Moreover, these studies allow for the examination of longitudinal relations and predictions, moving us closer to discovering underlying processes and mechanisms of child development. Several longitudinal studies have examined adopted children's social-emotional and cognitive development in the past, and in many studies, the participants have been followed until today. Seven studies are discussed here: Three studies involved domestic adoptions and four studies involved international adoptions (Table 1).

United Kingdom: Tizard and Hodges Study

In a pioneering study, Tizard and her colleagues followed a group of children in the United Kingdom who had experienced institutional care for the first years of their lives. Most of them were then adopted, fostered, or restored to their biological parents between the ages of 2 and 7 (Hodges & Tizard, 1989a, 1989b; Tizard, 1977; Tizard & Hodges, 1978; Tizard & Rees, 1975). The children received adequate physical care in the institutions, but

(Continued)

1ABLE 1 Seven Longitudinal Adoption Studies

Country/Shidy/	Domestic /		Developmental		Developmental
Year Study	International	Preadoption	Stage at Start		Domains
Started	(from)	Adversity	Study (Age)	Age at Follow-Up	Assessed
UK: Tizard and	Domestic	Institutional care in United	Early childhood	2, 4, 8, and	Social development
Hodges study;		Kingdom in infancy	(24 months)	16 years	Cognitive development
1968/1969					Behavior problems
UK: ERA study; 1993	1. Domestic	1. Early adopted	Early childhood	4, 6, 11, and	Physical/neurobiological
	2. International	2. Extreme deprivation in	(4 years) with	15 years	development
	(Romania)	Romanian institutions	retrospective		Social development/
			assessment of status		Attachment
			at age of entry		Cognitive development
					Inattention/Overactivity
					Emotional and conduct
					behavior
Canada: Romanian	1. International	1. Extreme deprivation in	Early childhood	11 months after	Physical development
Adoption Project;	RO (Romania)	Romanian institutions >	(RO: \pm 35 months	adoption;	Attachment/
1992	2. International	8 months	EA: ± 13 months)	4.5, 10.5, and	Indiscriminate
	EA (Romania)	2. Deprivation in Romanian		17.5 years	friendliness
	3. Nonadopted CB	institutions and hospitals			Cognitive development
		< 4 months			Inattention/Overactivity
		3. Nondeprived birth homes			Behavior problems

TABLE 1
CONTINUED

Country/Study/ Year Study Started	Domestic/ International (from)	Preadoption Adversity	Developmental Stage at Start Study (Age)	Age at Follow-Up	Developmental Domains Assessed
Spain: Adoption from institutional care study; 1995	Domestic	Institutional care in Spain	Middle childhood (7.6 years)	7.5 and 13.5 years	Cognitive development Behavior problems Emotional development School achievement Life satisfaction
Greece: Metera study; 1996	Domestic	Institutional care in Greece in infancy	Infancy (13 months)	11–18 months; 3.7–4.7 years and 13 years	Physical development Attachment Cognitive development Temperament Behavior problems Emotional development School achievement
Netherlands: Rotterdam longitudinal study; 1986	International (from several countries)	Heterogeneous group; age at adoption ranged from 0 to 10 years; mixed preadoption care	Childhood (10–15 years)	10–15 years; 14–18; 24–29; 29–33 years	
Netherlands: Leiden longitudinal study; 1985	International (Sri Lanka, Korea, Colombia)	Relatively favorable preadoption care	Infancy (5 months)	5, 6, 12, 18, 30 months; 7 and 14 years	Physical development Attachment Social development Cognitive development Behavior problems

staff turnover and staff policy gave them little opportunity to form close, stable relationships with an adult (Hodges & Tizard, 1989a).

By the age of 8, it was found that children adopted before 4.5 years of age scored well above the average and above later-placed children in IQ and reading attainment. According to their parents, at 8 years the postinstitution-alized children did not present more problems than a comparison group who had never been institutionalized. However, according to the teachers, more of them showed problems, notably attention-seeking behavior, restlessness, disobedience, and poor peer relationships (Tizard & Hodges, 1978).

At age 16, the findings confirmed the results from earlier stages of the study (Hodges & Tizard, 1989a). First, institutional rearing did not have the devastating long-term effects described in some early studies (Goldfarb, 1945), as evidenced by children's normative intelligence. Importantly, different placements were associated with different IQ gains. The largest IQ gains were apparent in children placed in adoptive homes between the ages of 2 and 4.5, gains that were maintained over the following 12 years. But "restoration at the same age to biological parents did not have the same effect; it was the type of family, rather than mere removal from institution to family, which mattered" (Hodges & Tizard, 1989a, p. 71). The authors found no evidence to suggest that selective placement could account for the differences in IQ between the adopted and restored children (Hodges & Tizard, 1989a).

By age 16, the difficulties of restlessness and poor peer relationships had decreased, but the postinstitutionalized children still showed more difficulties than comparison groups. The restored children showed more problems at school than the adopted children. Also, the majority of restored children had considerable problems at 8 years and none had improved substantially, while improvements occurred in most of the adopted children who had many problems at age 8 (Hodges & Tizard, 1989a).

There were also important outcomes with respect to social and family relationships (see also Chapter III). Hodges and Tizard (1989b) described that in the institution there was an explicit policy against allowing too strong an attachment to develop between the caregivers and the children. At the age of 2, children seemed to be "... attached to a large number of adults. That is, they would run to be picked up when anyone familiar entered the room, and cry when they left. At the same time, they were more fearful of strangers than home-reared comparisons" (Hodges & Tizard, 1989b, pp. 77–78). However, at age 4, they were no longer shy of strangers. About a third were markedly attention seeking and "overfriendly" to strangers. At the age of 8, overfriendliness and a great desire for adult attention were still common in the postinstitutionalized group. Although the overfriendliness no longer seemed a problem at age 16, the postinstitutionalized adolescents were more often oriented toward adult attention and approval than comparison adolescents (Hodges & Tizard, 1989b).

United Kingdom: The English and Romanian Adoption (ERA) Study

The ERA study provides information on a broad set of outcome measures in a sample of 165 children adopted from Romania suffering severe institutional deprivation of varying durations (up to 42 months). The Romanian children were assessed at ages 4, 6, 11, and 15 and there was a comparison group of early- adopted UK adoptees. Developmental outcomes were categorized into the domains of deprivation-specific problems and general problems of conduct and emotion (Rutter et al., 2007a, 2010).

Four outcomes were established as specific effects of early deprivation: inattention/overactivity (Stevens et al., 2008), quasi-autism (Rutter et al., 2007c), disinhibited attachment (Rutter et al., 2007b), and intellectual impairment (Beckett et al., 2006; Croft et al., 2007). These outcomes showed an early onset and persistent pattern (at least into midadolescence), and there were significant individual continuities in these outcomes. They were associated with deprivation of more than 6 months. Those adopted before 6 months on the whole showed no effect of institutionalization relative to the comparison group, and those over it showed the same degree of risk regardless of the actual number of months in institutional care. Because they were the most distinctive (unusual in form) of the deprivation-specific outcomes of the four and given their significant level of co-occurrence and longitudinal trajectories (Kreppner et al., 2010; Kumsta et al., 2010), quasi-autism and disinhibited attachment have been argued to represent the core of the pattern of impairment in this sample, with cognitive impairment and inattention/overactivity as subsidiary but nevertheless important features. Deficits persisted to age 15 in all four domains despite noticeable improvements for some children (most clearly in the reduction of cognitive impairment in the most severely affected children) and changes in the nature of the problems (especially with regard to quasi-autism and disinhibited attachment). Some children with the most extended duration of deprivation were completely unaffected, although this was rare. Subnutrition, as measured in terms of severely reduced weight and height when leaving the institution, was common in this sample (Sonuga-Barke, Schlotz, & Rutter, 2010), but it did not appear to be the main factor driving these outcomes (Sonuga-Barke et al., 2008). Even children with normal growth at entry into the United Kingdom were at risk for negative outcomes if they had experienced extended deprivation, although it has been acknowledged that these children may have had more subtle deficits in micronutrients needed for normal brain growth (Chapter I; see also Sonuga-Barke, Schlotz, & Rutter, 2010).

Problems in the domains of general behavioral conduct and emotion were considered separately (Colvert et al., 2008; Sonuga-Barke, Schlotz, & Kreppner, 2010). Effects of deprivation were weak for general conduct problems. Although levels were raised at ages 6, 11, and 15, these effects were

statistically marginal and seemed linked to the presence of prior problems especially in terms of inattention/overactivity. Emotional problems on the other hand showed a distinctive late onset pattern—with a significant increase in problems between 6 and 11 years that persisted to 15 years. This effect seemed to be a more general response to prior problems in the deprivation-specific domain, with quasi-autism, disinhibited attachment, inattention/overactivity, and cognitive impairment at age 6 all predicting later emotional problems. These conduct and emotional problems were also reflected in peer relationship difficulties—the effects of which were stronger than for both emotional and conduct problems.

In sum, findings from ages 4 through 15 suggest the persistence of negative effects of institutional deprivation on rather specific (i.e., quasi-autism, disinhibited attachment, inattention/overactivity, and cognitive impairment) outcomes in a majority of children who experienced more than 6 months of institutional care, although a minority showed no long-term adverse effects. The emergence of emotional problems in early adolescence may constitute a response to prior deprivation-specific problems.

Canada: The Romanian Adoption Project

Seventy-five children adopted from Romania in 1990 and 1991 by Canadian families have been followed from shortly after their adoptions in early childhood to age 17. There are two groups: (1) the Romanian Orphan (RO) group, which at the outset of the study included 46 children who were abandoned at birth and adopted from institutions at 8 months of age or older (mean age at adoption: 24 months) and (2) the Early Adopted (EA) group, which consisted of 29 Romanian children adopted prior to 4 months of age (mean age at adoption: 2.5 months) primarily from orphanages or hospitals. All EA children were relinquished by their birth parents and all would have been institutionally reared had they not been adopted. A third group consists of 46 never-institutionalized nonadopted Canadian-born (CB) children living with their birth parents. Comprehensive assessments have occurred at four times (11 months after adoption; then at ages 4.5, 10.5, and 17.5).

In the domain of attachment, 11 months after adoption the RO children scored significantly lower on a parent-report measure of security than did their matched comparisons in both the CB and EA groups, while the CB and EA groups did not differ from one another (Ames, 1997). At ages 4.5 (Chisholm, 1998) in a modified Strange Situation and at 10.5 years (Fernyhough, Audet, & Le Mare, 2002) on a projective measure, significantly fewer RO than CB or EA children were categorized as securely attached. The CB and EA groups did not differ in percentages of children who were securely attached. Moreover, at 4.5 years significantly more RO than CB or EA children displayed

atypical (disorganized) patterns of attachment. Despite these differences, at ages 10.5 and 17.5, children's self-reports of trust in, communication with, and alienation from their parents did not differ between the RO, CB, and EA groups.

Comparisons of the RO, EA, and CB groups on IQ reveal a similar pattern of differences among groups at both ages 4.5 (Morison, 1997) and 10.5 (Le Mare, Vaughn, Warford, & Fernyhough, 2001), with the RO group having a significantly lower average IQ than both the EA and CB groups, and the EA group having a significantly lower average IQ than the CB group. At 4.5 years, the RO children also had significantly lower school readiness scores and problem solving abilities than the CB and EA children (Ames, 1997), and at 10.5 years, they scored significantly lower in school achievement than the EA group who in turn, scored significantly lower than the CB group (Le Mare et al., 2001). Individual differences in IQ scores were very stable over time in all groups.

Differences among groups in terms of behavior problems have consistently indicated significantly more problem behavior in the RO group. Eleven months after adoption the RO children had higher total problem scores and internalizing problem scores than both the EA and CB groups, who did not differ from one another. At 4.5 years, the RO children had significantly higher externalizing problem scores than both the CB and EA children. These differences remained at the later assessments.

In addition, two specific kinds of behavior that have been examined in greater detail are indiscriminate friendliness (IF; Chisholm, 1998; Fernyhough, 2003) and inattention/overactivity (Audet & Le Mare, 2010). IF is affectionate and friendly behavior to all adults, even those with whom the child is unfamiliar (see also Chapter III). At the first assessment 11 months after adoption and at ages 4.5 and 10.5, the RO children displayed significantly more indiscriminately friendly behavior than either the EA or CB groups, who did not differ from each other (Chisholm, 1998; Fernyhough et al., 2002). The RO children were just as indiscriminately friendly at age 4.5 as they had been almost 1 year after adoption, and 90% of parents reported no improvement in this behavior over that period of time (Chisholm, 1998). Moreover, IF at 4.5 years was significantly correlated with IF at 10.5 years in the RO group, suggesting stability in IF over 6 years.

At ages 4.5 and 10.5, the RO children had significantly higher inattention/overactivity scores than the CB and EA groups, who did not differ from one another. This difference was corroborated by reports at 10.5 years that 34% of the RO children had received a clinical diagnosis of either attention-deficit disorder (ADD) or ADHD, while only 2.5% of the CB and 9% of the EA children had either diagnosis. At age 17.5, both the RO and EA groups were significantly higher in inattention/overactivity than the CB group. The RO and EA groups did not significantly differ from each other.

Overall, the RO group has consistently shown the poorest outcomes across all domains, the CB group has presented the most positive outcomes, and outcomes for the EA group have tended to fall intermediary to those in the RO and CB groups. Significant differences have nearly always been found between the RO and CB groups, indicating that as a group, the RO children are not developing as well as typical nonadopted children. Differences between the EA and CB groups have rarely been statistically detectable suggesting that the prenatal and family backgrounds (including adoption) of these Romanian adoptees had minimal effect on their developmental outcomes. Differences between the RO and EA groups have also nearly always been statistically detectable indicating a significant and lasting negative effect of highly deprived early institutional rearing on developmental outcomes.

Spain: Adoption From Institutional Care Study

In this project, 273 adoptive families were studied in Spain, first in 1995 and again in 2001. The mean age at adoption was 1.8 years. One third of the adopted children had no institutional experience (basically, infants adopted right after birth), 42% were in an institution for less than a year, and the rest experienced longer exposure to institutional care. A second group consisted of children living in institutions, and a third group was made up of non-adopted current classmates of the adoptees. Only the adopted children have been followed longitudinally with the same children seen at all assessments (Palacios & Sánchez-Sandoval, & Sánchez, 1997).

At the time of the first data collection, Spanish institutions had already made the transition from large centers to smaller ones. An institution with more than 30 children would be considered to be big and many housed less than 20 children. The centers were generally well staffed, but with rotating professionals. Children spent a large amount of time outside the institution, mainly because they attended schools in the community.

Data collected at the first assessment (children's mean age: 7.6 years) showed that school performance and school motivation were poorer for the children in institutions than for the other two groups. For example, according to their teachers, 65% of the institutionalized children were performing poorly at school, while the same was true for 32% of the adoptees and 22% of their classmates. No significant differences were found between the adopted children and their classmates.

Regarding behavioral problems studied with the Rutter behavioral scales (Hogg, Rutter, & Richman, 1997), no significant differences were found among the preschool children. However, for older children, institutionalized children had higher scores on total problems and the anxious-fearful

and antisocial subscales. On the hyperactivity-distractibility subscale, no differences were found between institutionalized and adopted children, and both groups scored higher than the classmates. But the group of adopted children was not a homogeneous one. Those who were never institutionalized and those with less than a year of institutional life did not differ from their current classmates in hyperactivity distractibility, but those with longer institutional experience scored significantly higher than their classmates and did not differ from the institutionalized children. No significant differences in self-esteem were found between the children in the institutions and the other two groups.

Six years after the first data collection, the same adopted children and two matched groups of children who were living in institutions and who were the current classmates of the adoptees were studied (Sánchez-Sandoval, 2002; Palacios & Sánchez-Sandoval, 2005). School performance and school motivation again were significantly poorer among the group of children who were in institutions compared with the other groups that did not differ from one another. The teachers also rated children's intelligence, task orientation, independence from teachers, extraversion, and consideration of others. They gave the lowest scores to the children in institutions, while adopted children and their current classmates were also significantly different, the last ones obtaining the highest scores. Some teachers probably knew that these children were living in institutions and this could have had a halo effect on their ratings, although the overall picture provided is quite consistent with what is known about these children's behaviors, as shown in this chapter as well as in Chapter I.

Institutionalized children (especially boys) showed more behavior problems than the adoptees, while the adoptees' classmates were the ones with the fewest problems. No significant differences were found between adopted and institutionalized children in the domain of hyperactivity, and only minor differences were found regarding emotional problems. In the group of adoptees, no differences were found depending on the level of early institutional exposure. Self-esteem and life satisfaction (self-reported) were significantly lower in institutionalized children than in the other groups.

In terms of Gunnar's (2001) classification (see Chapter I), the institutions in which these children were growing up were not globally depriving centers and could probably be classified in the third level of quality (good physical care but lack of adequate and stable personal relationships). However, it is clear that the children living in institutions fared less satisfactorily in basically all of the areas considered when compared with adopted as well as with nonadopted community children (hyperactivity scores being the exception in the comparison between adopted and institutionalized children). From these data, it cannot be concluded that the institutions where the children were living were the cause of the problems, but it is clear that children did

not find solutions to their difficulties in these environments. The data on life satisfaction in adolescence (institutional care was associated with lower life satisfaction, Cohen's d effect size 0.98 for boys and 1.28 for girls) were particularly striking.

Greece: The Metera Study

Vorria et al. (2006) followed 100 children in Greece from infancy to the age of 4. Sixty-one of the children, 32 boys and 29 girls, spent their first 2 years of life in the Metera Babies Center (Chapter I) and were then adopted. The adopted children were compared to 39 children, 20 boys and 19 girls, reared in their own two-parent families and who attended a day care center from infancy.

The study investigated the development of infants who had formed an attachment relationship (secure, insecure, or disorganized) with their caregiver in Metera Babies Center and who, by the age of 2, were separated from this caregiver when they moved from the institution to the adoptive family. The adopted children were separated from their biological mothers, the majority of them from birth, and they were reared in an institution, which was understaffed and did not offer adequate emotional, social, and cognitive stimulation (see details in Chapter I and Vorria et al., 2003). The children were adopted by psychologically healthy parents—the adoptive mothers had fewer problems of anxiety, somatic symptoms, and depression than the comparison mothers—and the adoptive parents highly desired the children. The study provided an opportunity to examine whether children who have been institutionalized and then adopted catch up in various domains of development.

At the first assessment in infancy, the majority of the institutionalized infants (66%) had formed a disorganized attachment relationship (see Chapter III) with their caregiver, while they also lagged behind in cognitive development compared to the family-reared infants. Institutionalized infants also were more often shy, expressed more negative affect, and were less active and sociable than the family-reared infants.

The institutionalized children were adopted at a mean age of 20 months and were followed up after an average of 28 months in their adoptive homes. At the age of 4, adopted children were less shy, while they did not show behavioral problems or problems in their relationships with their teachers. However, regarding cognitive development, some of the differences between adopted and comparison children found in infancy remained, perhaps because the children did not have enough time to recover and had not yet reached their full cognitive potential. Other studies also have shown that differences in cognitive development between adopted and comparison children continued during the preschool years and eventually disappeared during the school years (Hodges & Tizard, 1989a).

Adopted children whose attachment type was classified in infancy as disorganized had on the AQS at 4 years higher security scores compared to those classified as securely attached in infancy. A possible interpretation of this finding could be that those infants who managed to form a secure attachment with their caregiver, under the difficult conditions of the institution, subsequently lost their attachment figure at a critical age, and this disruption might have undermined their ability to trust the adoptive parent. On the other hand, once children who had a disorganized attachment in the institution were placed in a family with competent adoptive parents who desired to form a close attachment to their adopted child, they might have taken full advantage of this opportunity and were freer to start a new and balanced relationship with their adoptive parent. Of course, this interpretation is highly speculative and awaits empirical tests in further research. One has to take into account that the sample size was small (16 children were securely attached and 35 had a disorganized type of attachment in infancy) and that the attachment measure at the follow-up (AQS) did not include disorganized attachment. It should also be noted that the AQS mean score was much higher than the average AQS security score across all studies using this measure (Van IJzendoorn, Vereijken, Bakermans-Kranenburg, & Riksen-Walraven, 2004). The follow-up study of these children in their adolescence, which is currently in process, might provide answers about the continuity of attachment relations.

Furthermore, adopted children were less able to understand emotions than family-reared children (Vorria et al., 2006), which was an expected outcome because understanding emotions is associated with family experiences and participation in discussions about feelings and relationships (Dunn & Hughes, 1998). It is interesting to note that cognitive development, emotional understanding, and security of attachment were independent of age at adoptive placement or time spent in the adoptive home.

Recently, the children were assessed in a follow-up study in adolescence. The preliminary results showed no differences between the adopted and the nonadopted comparison adolescents regarding attachment and cognitive development. However, adopted adolescents had lower school achievement and presented more problems at school, compared to the adolescents reared in their biological families.

The Netherlands: Rotterdam Longitudinal Study

The behavioral development of 2,148 international adoptees from late childhood into adulthood has been studied by Verhulst and his colleagues since 1986. The original target sample consisted of all children born outside the Netherlands and subsequently adopted by nonrelatives in the Netherlands between 1972 and 1976. Children were sampled from the central adoption

register of the Dutch Ministry of Justice. At the initial assessment, the adoptees were aged 10–15 and were assessed again in 1990 (adolescence) and 1999–2002 (adulthood).

Age of the adopted child at placement ranged from a few days to $10 \, \mathrm{years}$, with half of the sample adopted before the second birthday. The adoptees came from over $50 \, \mathrm{countries}$ of origin including Korea (32%), Colombia (15%), India (9.5%), Indonesia (8%), Bangladesh (7%), Austria (5%), and Lebanon (5%). Prior to adoption, many of the adoptees had been in institutional care and many had experienced early adversities. In total, 45% had experienced neglect, 13% abuse, 54% multiple preadoption placements, and 43% had poor health at arrival. The proportion of girls (52%) slightly outweighed that of boys. The mean occupational level of the adoptive parents was relatively high.

At the first two assessments (late childhood and adolescence), parents were requested to fill out questionnaires. In adolescence, the adoptees themselves were also asked to complete self-report questionnaires, and in adulthood, adoptees were asked to participate in a standardized psychiatric interview.

In late childhood and adolescence, the adopted children showed more internalizing and externalizing problem behavior than nonadopted children (Verhulst et al., 1990a; Versluis-den Bieman & Verhulst, 1995). In general, adopted boys had higher risks than adopted girls, and children who were older at the time of assessment had higher risks than younger children. Moreover, it was found that early neglect, abuse, or multiple placements before adoption increased the risk for later maladjustment. Age at placement, as such, did not predict later problem behavior independent of the influence of early adverse circumstances (Verhulst, Althaus, & Versluis-den Bieman 1990b, 1992). From late childhood into adolescence, problem behavior increased in adoptees in contrast with nonadoptees. Early adversities and racial difference with adoptive parents were not responsible for this increase (Verhulst & Versluis-den Bieman, 1995).

In adulthood, adoptees were more likely to have psychiatric disorders, such as anxiety disorders, mood disorders, and substance abuse or dependence than nonadoptees from the general population (Tieman, Van der Ende, & Verhulst, 2005). This was especially true for those adoptees who had experienced *multiple* adversities (Van der Vegt et al., 2009), a result consistent with a cumulative risk perspective (Rutter, 1990). Again, higher risks for males were found; adopted men were nearly four times more likely to have a mood disorder than nonadopted men, while adopted women had no higher risk than nonadopted women. Adoptees who were searching for their birth parents were found to be more likely to have psychiatric problems than those who did not search or had no interest in their background (Tieman, Van der Ende, & Verhulst, 2008).

Longitudinal analyses revealed that from childhood into adulthood internalizing behaviors slightly increased in adoptees, whereas in the general population these problems remained stable. Externalizing behaviors decreased in both groups, but the decrease was smaller in adoptees. So, over time differences between adoptees and nonadoptees increased (Tieman, Van der Ende, & Verhulst, 2006a). Furthermore, trajectories of problem behaviors were found to be associated with abuse, neglect, and number of preadoption placements (Van der Vegt, Van der Ende, Ferdinand, Verhulst, & Tiemeier, 2009).

Regarding school performance, adopted children performed somewhat less well than nonadopted children. Moreover, the proportion of adopted children attending special education (13.2%) was much higher than for nonadopted children (4.4%; Verhulst et al., 1990a). However, in adulthood, the adoptees reached the same educational and professional levels as those of nonadoptees (Tieman, Van der Ende, & Verhulst, 2006b).

For social functioning, a mixed picture was found. In late childhood, adopted children were more skillful in sports and nonsports activities and were more active participants in organizations and nonsports activities. At the same time, however, they showed poorer social skills (Verhulst et al., 1990a). In adulthood, adoptees were less likely to have intimate relationships than nonadoptees. However, adult adoptees were not impaired in their social contacts, and their daily social functioning was at par with the general population (Tieman et al., 2006b).

In sum, this longitudinal study found elevated risks for behavior problems and poor school performance in international adoptees. However, it should be stressed that the majority of the adoptees did not show psychiatric problems in childhood, adolescence, and adulthood. This is remarkable given the early adverse circumstances the majority of them had experienced. What is more, despite the somewhat elevated risk of psychiatric problems, adult educational achievement and daily social functioning were at par with those of the general population.

The Netherlands: Leiden Longitudinal Adoption Study

In this prospective longitudinal study, 160 internationally adopted children (75 boys and 85 girls) were followed from infancy to age 14 (Juffer, 1993; Juffer & Van IJzendoorn, 2009; Rosenboom, 1994), and a follow-up in young adulthood is currently being conducted. The adoptive families were randomly recruited through Dutch adoption organizations, and the adopted children were not selected based on present or expected future problems. The children were adopted from Sri Lanka (n = 86), South Korea (n = 86), South Korea (n = 86)

49), and Colombia (n = 25) and placed in adoptive families at a mean age of 11 weeks. The adoptive families were predominantly from middle-class backgrounds.

In the first stage of the study, a short-term attachment-based intervention was tested, starting at the child's age of 6 months. The intervention was aimed at enhancing parental sensitivity, with the ultimate goal of promoting secure infant-parent attachment relationships. The intervention with video feedback (in 50 of the 160 families) appeared to be effective in promoting parental sensitivity and reducing infant disorganized attachment (Juffer, Bakermans-Kranenburg, & Van IJzendoorn, 2005, 2008a).

The children were followed from the time that they were 6 months with several assessments during early childhood, again at age 7, and then at the age of 14. By examining children who were adopted at the earliest possible time without severe preadoption adversities, the effects of adoption could be estimated. Children from Sri Lanka had not been in institutional care—they stayed with their birthmother until the adoption—while the children from Korea and Colombia came from relatively favorable children's homes supported by Western adoption agencies. In addition, these children were adopted very early (mean 11 weeks). Therefore, this longitudinal study may show the effects of international adoption per se, without accumulative deprivation. As such, this study could serve as a contrast for the previous longitudinal studies including adopted children with histories of more prolonged institutionalization.

The adopted children appeared to show normative development and functioning regarding infant attachment security and attachment disorganization (Juffer et al., 2005), cognition, and self-esteem (Stams et al., 2000). However, the adopted children, particularly the boys, showed significantly more behavior problems in middle childhood (Stams et al., 2000) and adolescence compared to nonadopted norms for internalizing as well as externalizing problems. Comparable with meta-analytic findings (Juffer & Van IJzendoorn, 2005), the adoptees in this longitudinal study showed fewer behavior problems at age 14 than at age 7 (Jaffari-Bimmel, Juffer, Van IJzendoorn, & Bakermans-Kranenburg, 2004).

The finding that the early-placed adoptees in this longitudinal study showed more internalizing and externalizing behavior problems than their nonadopted peers (especially in middle childhood) suggests that—apart from potential pre- and perinatal risks and subsequent deprivation—the process or features of international adoption itself may be involved in the etiology of behavior problems. We indeed found some evidence that adopted children's problem behavior in middle childhood, assessed by mother and teacher report, was predicted by the presence of the wish of the adoptees to be White and the wish that they were born in the adoptive family (Juffer, 2006). An explanation for these wishes "not to look or to be different" may be found

in attachment theory. A common theme in both wishes may be that internationally adopted children feel frustrated in their tendency to identify with their adoptive parents, which is a normative tendency in middle childhood and a logical consequence of early (adoptive) parent–child attachment relationships (Bowlby, 1982).

Concluding, the longitudinal studies described earlier suggest a near-normative adjustment in children adopted at a young age and those not reared in institutional care. In contrast, all evidence points to a negative and significant impact of exposure to institutional life in the first year(s) of life, with effects on specific developmental domains (e.g., attachment disorganization; inattention/overactivity) and with long-term consequences, even into adulthood. Around the world, children have entered institutions at different ages, remained in them for shorter or longer periods of time, and have been exposed to different levels of deprivation. Probably, for most children, their problems and difficulties did not start on the day they entered an institution, as risk factors (genetic, pre-, peri-, and postnatal) may have been already present in their lives. However, consistent with a cumulative risk framework (Rutter, 1990), the institution may have provided an environment that not only failed to resolve existing problems, but may have exacerbated previous difficulties and created additional ones.

Meta-Analytical and Longitudinal Studies Compared

The evidence from the meta-analytical research and the longitudinal studies largely converge. Normative rates of secure attachment were reported for children adopted before their first birthday in a meta-analysis (Van den Dries et al., 2009) and for the children in the Leiden longitudinal study and the EA group in the Canadian study who had been adopted at a very young age. The meta-analysis reported a higher risk of disorganized attachment, which was also found in the longitudinal Metera study. Another meta-analysis found lower than normative school achievement for adopted children with severe preadoption adversity (Van IJzendoorn et al., 2005), and several longitudinal studies reported converging evidence (the ERA study, the Romanian project in Canada, the Spanish study, and the Rotterdam study). Converging evidence was also found for behavior problems: both meta-analytic evidence (Juffer & Van IJzendoorn, 2005) and almost all longitudinal studies point to more behavior problems in adopted children, even in children adopted in early infancy in the Leiden study. A decline in the rate of problem behavior between middle childhood and adolescence was found in the meta-analysis as well as in the pioneering adoption study by Tizard in the United Kingdom and in the Leiden study, although in some other studies problem behaviors emerged or increased during adolescence (ERA study and Rotterdam study). Finally,

a converging picture for self-esteem was found in the meta-analytic (Juffer & Van IJzendoorn, 2007) as well as in the longitudinal research: adopted children showed normative levels of self-esteem, whereas children growing up in institutional care reported lower than optimal self-esteem (Spanish study).

The available meta-analyses did not examine problems such as disinhibited attachment, quasi-autism, and inattention/overactivity (e.g., ERA study) or emotion understanding (e.g., Metera study), which may be important features for children following severe institutional deprivation. Longitudinal studies examining these aspects in children are invaluable to better understand adopted children's adjustment and to distinguish between areas of development that may be more or less prone to delay and deficiency as a consequence of institutional deprivation. However, one should also be careful with broad generalizations because of potential cohort effects (see above). In the course of the years, countries of origin have changed and quality of institutional care has been improved, implying that children adopted nowadays may show more optimal health (Van Schaik et al., 2009) and developmental outcomes than in the past.

The Role of the Adoptive Family

A largely unexplored area is the role of the adoptive family and the effects of adoptive parenting on adopted children's development. Meta-analytic evidence has shown that adoption is a remarkably "effective intervention" (Van IJzendoorn & Juffer, 2006, p. 1228) for children who have suffered early adversity: they often catch-up in physical, social-emotional, and cognitive development and outperform the children left behind in institutional care. A possible explanation for this recovery may be found in the adoptive home environment that provides the child with adequate stimulation and corrective attachment experiences among other things. Adoptive parents have been screened (or self-selected) for adoption, and the likelihood that they show similar or even better parenting compared to a random group of nonscreened parents has long been acknowledged (e.g., Hodges & Tizard, 1989a; Yarrow & Klein, 1980), although they also face dilemmas and challenges unknown to nonadoptive parents (see later discussion). But what do we know about the adoptive family and the effects of variations in family structure and function including parenting?

There is indeed longitudinal evidence that, comparable with nonadoptive families (Sroufe, Egeland, Carlson, & Collins, 2005), early child–parent attachment relationships in the adoptive family and sensitive adoptive parenting predict adopted children's social adjustment in middle childhood and adolescence (Jaffari-Bimmel, Juffer, Van IJzendoorn, Bakermans-Kranenburg, & Mooijaart, 2006; Stams, Juffer, & Van IJzendoorn, 2002). Children who had

been secure with their adoptive parent in early childhood and children with more sensitive adoptive parents had better social skills than insecure adopted children or less sensitive adoptive parents.

However, one should not exclude the possibility that some processes operating within families are different for adoptive and nonadoptive families. For example, in the Rotterdam longitudinal study, it was found that a high socioeconomic status (SES) of the adoptive parents appeared to be a risk factor for the presence of psychiatric problems in adopted adult persons instead of being a protective factor as is usually found in nonadopted populations (Tieman et al., 2005). A possible explanation may be found in the existence of a gap between the relatively high-functioning adoptive parents and their probably somewhat less optimally functioning adoptive offspring (due to preadoption adversity or genetic capacities). High expectations of the adoptive parents have also been mentioned in this context when adoptive parents' educational and behavioral expectations may not be achievable for children who have experienced significant adversity.

Differences in parenting style in addition to SES may also be associated with differences between adopted versus nonadopted children. For example, the Romanian study in Canada found that more authoritarian parenting was associated with *more* problems of inattention/overactivity in adopted children with less than 5 months of deprivation, whereas in adopted children with more than 47 months of deprivation more authoritarian parenting was associated with *fewer* inattention/overactivity problems (Audet & Le Mare, 2010). It could be hypothesized that adopted children who have been exposed to depriving care for a considerable period of time need a more highly structured parenting style, whereas this is not the case for nondeprived adopted children or for typically developing nonadopted children.

Finally, communication processes about issues of abandonment and adoption and about racial–cultural topics may vary between adoptive families and consequently hamper or encourage the child's acceptance of his or her adoption (Brodzinsky, 1990, 2005; Lee, Grotevant, Hellerstedt, Gunnar, & the Minnesota International Adoption Project Team, 2006). And, of course, how children (and later adolescents, adults) appraise their adoption may also be related to their adjustment and well-being (Brodzinsky, 2006; Basow, Lilley, Bookwala, & Gillicuddy-DeLisi, 2008; Storsbergen, Juffer, Van Son, & 't Hart, 2010).

Possible Risks?

Adoption is not a miracle that cures all delays and difficulties of postinstitutionalized children, and, at the same time, adoption comes with its own challenges to the adoptive families, emphasizing the need for providing support to adoptive parents. Whether these challenges result in elevated risks of insensitive or even abusive parenting is a largely unexplored area. As an example, a report in *Child Maltreatment* questioned the child abuse fatalities among internationally adopted children in the United States (Miller, Chan, Reece, Tirella, & Pertman, 2007). The authors stated: "Thus, it has been shocking and horrific to realize that, since 1996, there have been 18 fatalities (in 17 families) of internationally adopted children because of suspected or proven cases of abuse and/or neglect by their adoptive parents" (Miller et al., 2007, p. 378). The article did not indicate whether a *higher rate* of abuse was indeed present in adoptive families, leaving this question open for further debate.

In a reply to this report, Van IJzendoorn and colleagues (Van IJzendoorn, Euser, Prinzie, Juffer, & Bakermans–Kranenburg, 2009) presented data on all cases (13,538) of child maltreatment in the Netherlands in 2005 collected through all Dutch child protective agencies. They found an elevated risk of child maltreatment in step-families but not in adoptive families (if anything, adoptive families were underrepresented among families with maltreatment). One of the implications of this study might be that (fatal) abuse by adoptive parents is a tragedy for the family as a whole, but one should not jump to conclusions based on shocking media reports. Studies should carefully examine the relative risks of adoptive versus nonadoptive parenting. In the public media, adoptive parents and adopted children sometimes are depicted in negative ways (Kline, Chatterjee, & Karel, 2009). There is, of course, the risk that media news starts to dominate the public discussion and even the scientific debate (not to mention the effect of such discussions on adoptive families and their networks).

This scientific debate raises issues about possible risks associated with adoption, despite its obvious benefits in most cases, but also the need for careful screening of prospective adopters and the provision of adequate afteradoption support. On the one hand, adoptive parents have been shown to be more often highly educated and to suffer less from psychiatric disorders, and in most countries they have been screened before adoption. On the other hand, risks may be present as well. For instance, adoptive parents are involved in a complex family type with specific implications for their role as parents. Not only do they often have to cope with problems of infertility, but they also are confronted with a role model handicap (Brodzinsky, 1990; Kirk, 1985), because usually their friends and relatives parent birth children and not unrelated children. Furthermore, they do not share a genetic bond with the adopted child, which may hamper reciprocal identification between parent and child. And finally, adoptive parents often are confronted with the delays and difficulties of deprived or malnourished adopted children, challenging their expectations, and their parenting abilities.

Pre- and Postadoption Services

Several (longitudinal) studies indicated that adoptive parents show normative or even quite optimal parenting qualities (e.g., in the Metera study, see earlier discussion). However, even parents with "normative" parenting capacities may be challenged by the difficulties presented by their postinstitutionalized, deprived adopted children. Therefore, supporting adoptive parents with pre- and postadoption services is important (see also Gunnar & Pollak, 2007).

Although in most countries pre- and postadoption services have been developed and improved during recent years, the situation today is still far from ideal. For example, about half of the receiving European countries now have compulsory preparation courses for prospective parents adopting from abroad, while the other half of the countries provide services on a case-by-case basis. Furthermore, specific postadoption services are less well developed compared to preparation services, whereas adoptive parents badly need support after adoptive placement as well (Juffer, 2009).

As an illustration, in the Netherlands an intervention program using video feedback has been developed for adoptive families and tested in a randomized controlled trial. After showing positive effects, this program has been translated for use in practice (Juffer et al., 2005, 2008a). Now every Dutch adoptive family can apply for this government-subsidized postadoption service during the first years after adoptive placement, and this includes the adoption of special needs or older children and sibling placements. Intervention programs with video feedback focusing on promoting sensitive parenting and adequate discipline (Juffer, Bakermans-Kranenburg, & Van IJzendoorn, 2008b, 2009) may offer adoptive parents and adopted children a promising start and ultimately stimulate healthy developmental outcomes in adopted children.

CONCLUSION

The empirical evidence reported in this chapter convincingly shows that institutional care appears to be detrimental for children's development. As a result, postinstitutionalized children may suffer from severe delays and difficulties after adoptive placement, challenging their adoptive parents' expectations, and parenting capacities. Therefore, adoptive parents should be supported in parenting their adopted children. At the same time, it should be concluded that adopted children greatly benefit from adoptive placement. They show catch-up growth in all domains of development, outperforming those children unfortunately left behind in institutional care. For institutionalized children, it is critical to limit their stay in institutional care to the

shortest possible time, while early adoption or other family-type care (such as foster care) is to be preferred in all cases.

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