2007

Special needs adoption from China: Exploring child-level indicators, adoptive family characteristics, and correlates of behavioral adjustment

Tony Xing Tan
University of South Florida

Kofi Marfo
Aga Khan University, kofi.marfo@aku.edu

Robert F. Dedrick
University of South Florida

Available online at www.sciencedirect.com
ScienceDirect
Children and Youth Services Review
29 (2007) 1269–1285

Children and Youth Services Review

www.elsevier.com/locate/childyouth

Special needs adoption from China: Exploring child-level indicators, adoptive family characteristics, and correlates of behavioral adjustment

Tony Xing Tan *, Kofi Marfo, Robert F. Dedrick

College of Education, University of South Florida, Tampa, FL United States

Received 8 February 2006; received in revised form 27 April 2007; accepted 16 May 2007
Available online 22 June 2007

Abstract

Since 1994, China has been a leading source of international adoptions in the US, and since 2000, an increasing number of these children have entered the country under the special needs classification. While there is a large body of research on domestic special needs adoptions, very little is known about special needs adoptions from China. This study took advantage of a large survey of 1096 adopted Chinese children to explore a number of questions on special needs adoptions from China. The sample included 124 children adopted under the special needs classification. In addition to parental reports of child behavioral problems on the Child Behavior Checklist (CBCL), data on age at adoption, type of special needs, pre-adoption adversity, developmental delays at adoption, and Initial Adaptation to Adoption were collected retrospectively from the adoptive parents. The analysis revealed no differences between special needs (SN) and non-special needs (NS) children on any of the measures. In addition, the nature of the disabilities associated with the SN classification for many of the children may not pose significant challenges to optimal development. Policy and practice implications are discussed in light of these findings.

Keywords: Special needs adoption; Adopted Chinese children; Behavioral adjustment

1. Introduction

Special needs adoption from China became officially available in September 2000, when China implemented laws to allow "older and disabled" children to be adopted internationally

* Corresponding author. Department of Psychological & Social Foundations, College of Education, University of South Florida, Tampa, FL United States.
E-mail address: tan@coedu.usf.edu (T.X. Tan).

0190-7409/$ - see front matter © 2007 Elsevier Ltd. All rights reserved.
doi:10.1016/j.childyouth.2007.05.001

through the "waiting child" program (China Center for Adoption Affairs (CCAA)). Information on the special needs of these children is first gathered and compiled by the CCAA and then made available to authorized adoption agencies in foreign countries such as the United States (US). The adoption agencies are usually given about 3 months to find a potential adoptive family for children in the program. The CCAA mandates that families with biological children be open to accept children with special needs classification. Seven years into the launching of the "waiting child" program no statistics have been made available by the CCAA regarding either the specifics of special needs represented in the program or the total number of children adopted under the special needs classification.

In light of the fact that the language of China's rather terse special needs adoption policy highlights disabilities as one of only two explicitly stated criteria for special needs classification (the other indicator being age), it is useful to begin with a definitional exploration of the term "special needs." The term, in US nomenclature, has overlapping but slightly different meanings within the fields of *child welfare* and *developmental disabilities/special education*. In the latter field, the term has gained increased use as a generic descriptor for individuals with the broad range of disabilities covered by federal legislation on the provision of special education and other intervention services, the Individuals with Disabilities Education Act (IDEA) of 2004 (PL 108-446, the most recent reauthorization of the 1975 landmark legislation, PL 94-142). In the child welfare field, particularly in the domestic adoption research literature, the term covers a much broader range of conditions deemed to have the potential to constitute a barrier to permanent adoption placement and/or affect the outcomes of adoption. It is crucially important, therefore, that "special needs" not be equated simplistically with the presence of disabilities.

Beyond mental or physical disabilities, behavioral problems, and emotional disorders, the term "special needs" in domestic adoptions within the child welfare field is frequently applied to the following categories of children: children who are relatively older[1]; those who have experienced physical and/or sexual abuse or severe neglect; those who are members of sibling groups being placed within the same adoptive family; those from a minority cultural/ethnic group; those with histories of prenatal exposure to alcohol and other drugs or to HIV/AIDS; and those exposed to violence and substance abuse (Groza & Ryan, 2002; Leung & Erich, 2002; McDonald, Propp, & Murphy, 2001; McGlone, Santos, Kazama, Fong, & Mueller, 2002; Reilly & Platz, 2003, 2004; Rycus, Hughes, & Goodman, 1998; Schweiger & O'Brien, 2005; Sullivan & Freundlich, 1999). Recent data compiled by the Child Welfare League of America (2006) on children adopted through public agencies showed the following distribution of 44,804 children in the various special needs categories (after excluding 6599 missing cases and 590 cases coded as "not applicable"): disabilities or medical conditions (27.8%); age (26.5%); sibling group member (22.4%); racial/ethnic background (10.5%); other (13.9%). Thus, in the 2004 US public adoptions data base, 72.2% of the special needs adoptions did not involve children with disabilities or medical conditions.

[1] The definition of "older" children varies significantly across American states. It ranges from 1 to 2 years in states such as Illinois and Indiana to 8/9years in such states as Alabama, Alaska, and Connecticut. There are intriguing nuanced differentiations within these definitions. For example, in some states that define "older" as 8/9years for white children, the corresponding cutoff for ethnic and racial minority children may be 2 (e.g., Alabama and Arkansas). Outlier states like Kansas define older as 12 years or more, if age is the only special need (see Child Welfare Information Gateway: http://www.childwelfare.gov/adoption/adopt_assistance/questions.cfm?quest_id=1). The Child Welfare Information Gateway is a service of the Children's Bureau of Administration for Children and Families (ACYF), US Department of Health and Human Services.

Research on domestic special needs adoptions has grown steadily since the passage of the Adoption Assistance and Child Welfare Act of 1980 (PL 96-272) and has been spurred further by the passage of the Adoption and Safe Families Act of 1997 (PL 105-89) which "places new requirements on states to lessen the time a child remains in foster care and to expedite the number of adoptions of special needs children" (Reilly & Platz, 2003, p. 782). This research has addressed a wide range of issues and challenges experienced by special needs adopted children and their adoptive families. Some investigators have explored the characteristics of families adopting special needs children (e.g., Reilly & Platz, 2003), family functioning within and/or child's adjustment to adoptive families (e.g., Leung & Erich, 2002; McDonald et al., 2001; Rosenthal, 1993), challenges facing adoptive families (e.g., Reilly & Platz, 2003), the impact of children's pre-adoption history on their post-adoption behavioral adjustment (e.g., Groza & Ryan, 2002; Smith & Howard, 1994), and the post-adoption service needs of families (e.g., Reilly & Platz, 2004).

Compared to the extensive body of research literature on domestic special needs adoptions in the US (and other industrialized nations), there is a glaring paucity of research on international special needs adoptions. Although research on international adoptions from Russia and Romania has an established history in North America and other industrialized countries, the concept of special needs adoptions has not been applied to the populations from these countries partially because no such policy has been implemented in those nations and researchers have not treated internationally adopted children, even those with very severe deprivation, as special needs adoptions. For international adoptions from China, the lack of research on special needs adoptions is understandable because China adoption research is itself a relatively new phenomenon in the larger milieu of inquiry on international adoptions, and special needs adoption per se has too short a history in the Chinese context to trigger the level of research activity witnessed on domestic adoptions. As research on China adoptions advances with the increasing number of Chinese children being adopted into families throughout the US and other industrialized nations, a sufficiently larger pool of children adopted under the special needs classification will become available for researchers to explore, among other issues, the kinds of questions that have been addressed in the extant literature on domestic special needs adoptions. This paper takes advantage of a recently completed large-scale survey study of families with adopted children from China to begin to lay a foundation for systematic inquiry into special needs adoptions from China. While such inquiry is significant in its own right, it also provides a gateway to comparative research on domestic and China special needs adoptions with regard not only to child-level and family-level profiles, concerns, and service needs but also to policy-level insights that could prove indispensable to advocacy groups and crafters of international agreements and guidelines. The following research questions were addressed:

1. What is the relative incidence of specific conditions potentially associated with the classification of adopted Chinese children under the special needs label?
2. What characteristics/profiles, if any, differentiate the following types of families: those adopting only special needs children, those adopting only non-special needs children, and those adopting both categories of children?
3. Do special needs and non-special needs children differ on such attributes as (a) number of signs and symptoms indicative of pre-adoption adversity, (b) adaptation to adoption, and (c) degree of developmental delay as determined through parent-reported professional assessments conducted immediately following adoption?
4. Do special needs and non-special needs children differ on parental reports of behavioral adjustment problems, as measured on the CBCL?
5. To what extent does special needs adoption status contribute uniquely to the prediction of behavioral adjustment problems as measured on the CBCL?

2. Methods

2.1. Sample

Internet discussion groups have become a popular forum for adoptive families to communicate on all aspects of adoption-related topics. In this study, participants were recruited through these discussion groups, as well as major adoption agencies. In early 2005, through one group moderator, a recruitment letter, with an introduction of the research project by this moderator, was posted on the message board of the internet moderators' group. The other moderators were asked to disseminate the recruitment letter to members of their respective groups. At the same time, the recruitment letter, together with the same introduction, was mailed to the directors of 10 adoption agencies in the US (e.g., Chinese Children's Adoption International, China Adoption With Love, Inc., and Alliance for Children).

Overall, the study was endorsed by at least 120 internet discussion groups and 6 adoption agencies. The groups included organizations associated with Chinese adoptions in general (e.g., Families with Children from China; Raising China Children), as well as groups with a more specific focus. The latter included (a) groups for families of children adopted from certain regions of China and (b) groups organized around specific developmental issues and topics, such as attachment, special needs, identity, and general post-adoption adjustment. As most families belong to more than one organization, some received information about the study simultaneously from multiple sources. Parents interested in participating in the study contacted the research program directly with information about the number of children they had adopted from China, number of biological children, age of each child, and a regular mailing address.

A total of 1001 families from the US and 91 families from other countries (e.g., Canada, Australia, and the UK) requested surveys. The US families were from 49 states, with California, Massachusetts, New York, and Florida being the four states with the largest number of families requesting surveys. The surveys were mailed to the adoptive parents via regular mail within 2 days of receiving the parents' request. An email confirming the mailing of surveys was sent to the adoptive parents within a week thereafter. For the returned surveys, an email thanking the family was sent and for surveys that were not returned within 3 weeks, an email reminder was sent to the parents. A total of 852 families (about 78.1%) returned the surveys. The total number of children within these families was 1193, of whom 1122 (94%) were adopted from China; the rest were the biological children of the adoptive families.

Of the 852 families, 616 families had adopted one child; 580 of these had adopted one child without special needs and 36 had adopted one child with special needs. Of the 236 families that had adopted multiple children, 169 of the families had adopted more than one child, all without special needs (158 had adopted two children, 10 had adopted three children, and one family had adopted four children); 10 families had adopted more than one child, all with special needs (seven had adopted two children and three had adopted three children); and 57 families adopted multiple children, some with and some without special needs (39 families adopted one child with and one child without special needs, 11 families adopted one child with and two children without special needs, six families adopted two children with and one child without special needs, and one family adopted one child with and three children without special needs).

Over 95% of the families were headed by white parents. Fifty-five percent of the families had incomes over $90,000 and over 90% of the mothers had a college degree or higher. Mothers' ages ranged from 31 to 64 (M=44.2, SD=6.1). Thirty-two percent of the families had biological children.

Complete data on the variables examined in this study were available for 1096 of the 1122 children (98%). Children ranged in age from 1.5 to 15.7 years with 755 (69%) of the sample under 6 years (preschool sample) and 341 (31%) 6 years and older (school-age sample). Children had lived with their adoptive families from 1 month to 12.6 years (M=43 months, SD=32.6 months). Due to China's "One-child" policy and Chinese culture's male preference, most adopted Chinese children are girls. In the current sample, 41 children (3.7%) were boys (n=26 and 15 in the preschool and school-age samples, respectively) and 1055 (96.3%) were girls (n=729 and 326 in the preschool and school-age samples, respectively).

One hundred and twenty-four children (11.3%) were classified as special needs adoptions. Sixty-three of these children were less than 6 years and 61 were 6 years or older. For the preschool sample, 22% of the special needs adoptions were boys (n=14) compared to 2% of the non-special needs adoptions (n=12), χ^2 (1, N=755)=72.90, p<.001; in the school-age sample, 18% of the special needs adoptions were boys (n=11) compared to 1.4% of the non-special needs adoptions (n=4), χ^2 (1 N=341)=32.84, p<.001.

2.2. Measures

2.2.1. Parent and family demographic variables

Demographic information about the adoptive families was collected using a self-completed questionnaire. Although we did not specify which parent should complete the instruments, the returned questionnaires indicated that 95% were completed by the adoptive mother. Information obtained from the questionnaire included the adoptive parents' marital status at the time of the adoption (married, not married, separated, divorced, widowed, living with same-sex partner, living with opposite-sex partner), whether the adopting parent(s) had biological children (yes, no; if yes, age and gender of the biological children), income (1=under $19,999 to 15=over $150,000), mother's education level (1=high school to 6=post-doctorate), mother's employment (stay-at-home, part-time, full-time). Parents also were asked to rate how supportive their extended family was about the adoption decision (1=not supportive to 3=very supportive).

2.2.2. Parent reports of child demographic information and characteristics of special needs

Demographic information about the adopted child, including the child's current age, age at adoption, and gender, was collected from the parents using a self-completed questionnaire. Parents also were asked to indicate if the child in question was adopted through the special needs classification. Parents who responded "yes" to this question were asked to specify the nature of the special needs.

2.2.3. Signs and symptoms of pre-adoption adversity

Parents were asked to report if they observed any of the following 11 readily observable signs and symptoms when their child was first adopted: lice/fleas, bad hygiene, lack of individual care, scratch(es), scabies, lack of medical treatment, scar(s), rashes, lack of responsiveness to others, bruise(s), and strap mark(s). This list of signs and symptoms was generated from an earlier study of 750 children adopted from China and in-depth interviews with 11 adoptive families. Items were scored "1" if the item was checked and "0" if not checked. A summary score was computed by summing the 11 signs and symptoms. Higher scores were viewed as an indication of greater pre-adoption adversity. Internal consistency reliability for the summary score, as measured by KR-20, was .51 and .68 for the preschool (<6 years) and school-age (≥6 years) samples, respectively. Many of the items, although judged to be valid indicators of quality of care, were observed

relatively infrequently, which limited the variability of the items and reduced the reliability estimates. For example, lice/fleas and bruises were observed in less than 5% of the children (the most frequently observed sign was rashes, observed in 21% of the children). The signs and symptoms summary score was recoded to 0 to 5, with 5 representing 5 or more signs and symptoms. Forty-five percent of the children scored 0, 29% scored 1, 13% scored 2, 7% scored 3, 3% scored 4 and 3% scored 5 or more.

2.2.4. Developmental Delays at Adoption (DDA)

It is a standard procedure for adopted children to receive extensive professional evaluations after their arrival at the adoptive home. As orphanage living may inevitably fail to meet the needs of some children, delays in social–emotional and physical development are common. Developed from an earlier study on 750 adopted Chinese children and in-depth interviews with 11 families, the *DDA* items asked the parents to report medical evaluation results in five areas of the child's development: gross motor skills, fine motor skills, social skills, emotional maturity, and cognitive ability. The developmental areas were rated as 0 (no delay or minor delay), 1 (moderate delay), or 2 (severe delay). A composite score was computed for developmental delays by summing the five item scores; KR-20 reliability coefficients were .78 and .83 for the preschool (<6 years) and school-age (≥6 years) samples, respectively. Higher scores on the *Developmental Delays at Adoption* index were indicative of greater delays.

2.2.5. Initial Adaptation to Adoption (IAA)

After receiving the child in China, the adoptive family typically spends about 2 weeks in the country to obtain documents for the newly adopted child to enter the adoptive country. In the current study, the initial period of adoption was operationalized as the first 2 weeks after the child was adopted. The first 2 weeks were used as a cutoff on the basis of two observations. First, parents frequently use the period immediately before and after coming back from China as a reference point when talking about their own initial experiences or feelings and their child's reactions and/or adjustment. Secondly, 2 weeks seemed to provide parents enough time to get a sense of their adopted child's basic behavioral patterns. Similar to the *DDA* index, the *IAA* index was developed in an earlier study on 750 adopted Chinese children and through in-depth interviews with 11 families. A set of five items focusing on children's early interactions with their parents was used to measure the child's initial reactions to adoption: appeared to be afraid of you, preferred to be held by others, refused to be held by you, refused to be fed by you, and avoided your affection. Parents were first asked to check if the given behavior was observed in their child. Behaviors that were not observed were scored a "0". For each observed behavior, the parent was then asked to report approximately how long this behavior lasted: *under 1 week*, *between 1 and 2 weeks* (combined and scored a "1"), and *over 2 weeks* (scored a "2"). A composite score was computed by summing the item scores. Internal consistency reliability, as measured by Cronbach's alpha, was .68 for the preschool sample and .75 for the school-age sample. Higher *IAA* scores indicated poorer adjustment.

2.2.6. Child Behavior Checklist (CBCL)

The Child Behavior Checklist is one of the most widely used parent or parent-surrogate measures of children's behavior. There are two versions of the CBCL, one designed for children ages 1 ½ to 5 years (CBCL/1 ½–5) and one for children 6 to 18 years (CBCL/6–18) (Achenbach & Rescorla, 2000a,b). The CBCL/1 ½–5 asks parents/caregivers to rate 99 specific child behaviors (e.g., *Clings*) as 0 (*Not True* of the child), 1(*Somewhat or Sometimes True*), or 2 (*Very*

True or Often True) and provides parents/caregivers an opportunity to write in three additional problem behaviors. Based on extensive psychometric analyses, Achenbach and Rescorla (2000a,b) identified in children from ages 1 ½ to 5 years the following seven clusters representing common problems or syndromes from 67 of the items on the CBCL/1 ½–5: Emotionally Reactive (9 items), Anxious/Depressed (8 items), Somatic Complaints (11 items), Withdrawn (8 items), Sleep Problems (7 items), Attention Problems (5 items), and Aggressive (19 items). In addition to these seven syndrome scores, the CBCL/1 ½–5 produces an Internalizing Problems score, formed by combining Emotionally Reactive, Anxious/Depressed, Somatic Complaints, and Withdrawn, as well as an Externalizing Problems score, formed by combining Attention Problems and Aggressive. Sleep Problems is treated as a separate syndrome. A Total Problems score is derived from the 67 items that form the seven syndromes, 32 items that represent other problems (e.g., *Chews inedibles*), and one item added by the parent/caregiver (if a parent/caregiver writes in more than one additional problem, the one item that has the highest score is included in the Total Problems score). Cronbach alphas for the seven syndromes ranged from .41 (Somatic) to .89 for Aggressive Behavior. Internalizing, Externalizing, and Total Problems had Cronbach alphas of .82, .90, and .93, respectively. For this study, *T* scores, based on Achenbach and Rescorla's (2000a,b) normative sample were used. Higher scores indicated greater problem behavior. For Internalizing, Externalizing, and Total Problems the cutpoint for the normal range is a *T* score less than 60, borderline is from 60 to 63, and the clinical range is greater than or equal to 64.

The CBCL/6–18 asks parents/caregivers to rate 119 specific child behaviors (e.g., *Argues a lot*) as 0 (*Not True* of the child), 1 (*Somewhat or Sometimes True*), or 2 (*Very True or Often True*) and provides parents/caregivers an opportunity to write in additional problem behaviors. The CBCL/6–18 consists of eight clusters of items representing common problems or syndromes identified from 103 of the items: Anxious/Depressed (13 items), Withdrawn/Depressed (8 items), Somatic Complaints (11 items), Social Problems (11 items), Thought Problems (15 items), Attention Problems (10 items), Rule-Breaking Behavior (17 items) and Aggressive Behavior (18 items). In addition to these eight syndromes, the CBCL/6–18 produces an Internalizing Problems score, formed by combining Anxious/Depressed, Withdrawn/Depressed, and Somatic Complaints, and an Externalizing Problems score, formed by combining Rule-Breaking Behavior and Aggressive Behavior. A Total Problems score is provided that includes the 103 items forming the eight syndromes, 16 items representing other problems (e.g., *Brags*), and up to one item added by the parent/caregiver (if a parent/caregiver writes in more than one additional problem, the one item that has the highest score is included in the Total score). Cronbach alphas for the eight syndromes ranged from .57 (Somatic) to .86 for Aggressive Behavior. Internalizing, Externalizing, and Total Problems had Cronbach alphas of .82, .87, and .93, respectively. *T* scores were used in this study with the cutpoints of less than 60, from 60 to 63, and greater than or equal to 64 representing the categories of normal, borderline, and clinical, respectively.

3. Results

3.1. Questions 1 and 2: children with special needs and the characteristics of the adopting families

The conditions of special needs among the 124 children adopted under the special needs classification included age (older than 3 years at adoption), different degrees of cleft palate (repaired or un-repaired), other visible physical disabilities (e.g., missing fingers), heart defects (e.g., ventricular septal defect), hepatitis B positive, and other conditions (e.g., birth marks).

Table 1
Summary of frequency (%) of specific types of special needs by age groups (N=124)

Types of special needs	Preschool sample		School-age sample	
	N	%	*N*	%
≥3 years at adoption	1	1.6	15	24.6
Un/repaired cleft lip/palate	19	30.2	8	13.1
Heart conditions	17	27.0	7	11.5
Positive hepatitis B	0	0	6	9.8
Visible disabilities other than cleft lip/palate [a]	17	27.0	15	24.6
Other conditions [a]	6	9.5	7	11.5
Special needs unconfirmed in post-adoption exam	3	4.8	3	4.9
Total	**63**	**100**	**61**	**100**

[a] Details provided in Table 2.

Tables 1 and 2 summarize the frequency of each type of special need by age group. For the preschool sample, 82.3% of the special needs were in three areas (cleft palate, heart defect, and other visible disabilities), while for the school-age sample, the special needs distributed widely across areas. For both preschool and school-age samples, there was one child in each group who was classified by the CCAA under the special needs label but who did not have a specific description of the special need. For these children, post-adoption medical examination could not

Table 2
Details of visible disabilities other than cleft lip/palate and other conditions by age groups

Preschool sample	*N*	School-age sample	*N*
Visible disabilities other than cleft lip/palate			
Right eye cataract/corneal leukoma	2	Cross-eyed/strabismus	2
Missing right ear	1	Benign tumor on forehead	1
Ear microtia/atresia	1	Missing a finger and club feet	1
Ear deformity	1	Malformed right arm	1
Hand/finger deformity	2	Deaf and mute	1
Missing 3 fingers on right hand	1	Minor club feet	1
Hand and feet birth defect	1	Rickets	2
Extra thumb	1	Polio	1
Club feet	1	Hand/shoulder injury by brachial plexus	2
Missing two toes, uneven leg length	1	Intersex	1
Hip dysplasia	1	Muscular dystrophy	1
Spina bifida	2	Minor foot deformity	1
Hypospadias	2		
Total	17		15
Other conditions			
No specific description	1	No specific description	1
Port wine stain birthmark	1	Birthmark	1
Unusual rashes	1	Calcium deficiency	1
Hearing impairment	1	True orphan	1
Buttock burns	1	Orthopedic problems	1
Mediterranean anemia	1	Thalassemia	1
		Umbilical hernia	1
Total	6		7

identify a special need. There were also three children whose post-adoption medical examinations could not confirm the conditions that they reportedly had (e.g., heart murmur, seizure).

Table 3 provides comparative data on the families for the five types of adoption conditions: (a) 1 child without special needs, (b) more than 1 child without special needs, (c) 1 child with special needs, (d) more than 1 child with special needs, and (e) mixed, some with and some without special needs. Children with special needs were more likely to be adopted into families that had raised or were raising biological children, χ^2 (4, N=851)=40.00, p<.001. This relationship, with a Cramer's V of .217, was of moderate strength (Cohen, 1992). For the families adopting one or more children with special needs only, 65% had biological children; for those only adopting one or more children without special needs, 30% had biological children, and for those adopting a combination of children with and without special needs, 30% had biological children.

Table 3
Demographic characteristics of the families by type of adoption (N=852 families)

Variable	Adoption type				
	Non-special needs		Special needs		Non-special + special needs
	One	More than one	One	More than one	
	(n=580)	(n=169)	(n=36)	(n=10)	(n=57)
	%	%	%	%	%
Biological children [a]					
Yes	33.3	17.8	66.7	60.0	29.8
Family type [b]					
Single-parent	22.8	27.8	16.7	10.0	38.6
Dual-parent	77.2	72.2	83.3	90.0	61.4
Mother's education level [c]					
Some college or less	11.2	8.3	0.0	20.0	12.3
College	37.0	36.1	44.4	50.0	38.6
Master's	35.6	39.6	25.0	30.0	31.6
Doctorate or higher	16.2	16.0	30.6	0.0	17.5
Mother's employment [d]					
Stay-at-home	23.8	32.0	13.9	70.0	22.8
Part-time (<40 h)	23.5	21.9	38.9	0.0	19.3
Full-time (≥40 h)	52.7	46.2	47.2	30.0	57.9
	Mean	Mean	Mean	Mean	Mean
	(SD)	(SD)	(SD)	(SD)	(SD)
Family income [e, f]	9.47	9.89	9.72	9.90	8.33
	(3.90)	(3.85)	(3.78)	(3.81)	(3.38)
Extended family support [g, h]	2.75	2.71	2.67	2.75	2.63
	(0.49)	(0.51)	(0.53)	(0.42)	(0.49)

[a] Biological children: χ^2=40.00, df=4, p<.001, Cramer's V=.217.
[b] Family type: χ^2=10.43, df=4, p<.05, Cramer's V=.111.
[c] Mother's educational level: χ^2=15.22, df=12, p=.23, Cramer's V=.077.
[d] Mother's employment: χ^2=22.43.43, df=8, p<.01, Cramer's V=.115.
[e] Family income: F(4,847)=1.80, p=.13.
[f] Family income was coded: 1=Under 19,999, 2=20,000–29,999, 3=30,000–39,999, 4=40,000–49,999, 5=50,000–59,999, 6=60,000–69,999, 7=70,000–79,999, 8=80,000–89,999, 9=90,000–99,999, 10=100,000–109,999, 11=110,000–119,999, 12=120,000–129,999, 13=130,000–139,999, 14=140,000–149,999, 15=over 150,000.
[g] Extended family support: F(4,846)=1.13, p=.34.
[h] Extended family support was coded: 1=not supportive, 2=somewhat supportive, 3=very supportive.

Families adopting children with special needs only were also more likely (85%) to be dual-parent families (i.e., married, same-sex partners, opposite-sex partners); for those only adopting one or more children without special needs, 76% were dual-parent families, and for those adopting a combination of children with and without special needs, 61% were dual-parent families, χ^2 (4, N=851)=10.43, p<.05. This relationship, although statistically significant, was not strong (Cramer's V=.111).

Families for the five types of adoption also were compared on the adoptive mothers' educational level and employment, along with the families' household income, and the level of support for the adoption decision provided by the adoptive parents' extended family. No statistically significant (p>.05) differences across adoption conditions were found for mothers' educational level, family household income, or level of support provided by the adoptive parents' extended family. Mothers of children with more than one child with special needs only were more like to stay-at-home and less likely to work full-time. This relationship, although statistically significant, was not strong (Cramer's V=.115).

3.2. Question 3: comparisons of children with and without special needs

Table 4 summarizes the variables that were used to compare the children with special needs classifications with those who did not have this classification. Comparisons were conducted separately for the preschool sample (under 6 years) and school-age sample (6 years and older) because one set of variables that was examined (CBCL T scores) was measured using different instruments for each of these age groups.

For the preschool sample, the only statistically significant difference was on age at adoption, t (750)=17.80, p<.001. Children with special needs were adopted at an older age (M=25.85 months, SD=10.82) compared to those without special needs (M=12.71 months,

Table 4
Child characteristics for special needs (SN) and non-special needs children by age group

	Preschool sample			School-age sample		
	SN (n=63)	Non-SN (n=689)	t [d]	SN (n=61)	Non-SN (n=280)	t [d]
	M (SD)	M (SD)		M (SD)	M (SD)	
Child characteristics						
Age at adoption (months)	25.85 (10.82)	12.71 (4.87)	17.80***	46.98 (37.45)	15.61 (15.80)	10.42***
Age at assessment (months)	42.85 (14.51)	39.27 (15.36)	1.78	109.68 (26.47)	101.06 (21.57)	2.71**
Signs and symptoms [a]	0.92 (1.17)	0.91 (1.16)	0.04	1.41 (1.59)	1.28 (1.49)	0.62
Developmental Delays at Adoption [b]	1.41 (1.78)	1.22 (1.80)	0.77	1.84 (2.47)	1.56 (2.18)	0.87
Initial Adaptation to Adoption [c]	1.30 (1.53)	0.96 (1.51)	1.73	1.43 (1.94)	1.11 (1.83)	1.22
CBCL T Scores						
Internalizing Problems	44.63 (8.87)	45.42 (9.75)	0.62	47.54 (9.53)	50.45 (9.12)	2.24*
Externalizing Problems	43.71 (10.63)	43.53 (9.59)	−0.15	48.49 11.26	49.17 (10.20)	0.46
Total Problems	44.33 (9.49)	44.62 (9.26)	0.23	48.74 10.13	49.85 (9.88)	0.79

*p<.05. **p<.01. ***p<.001.

[a] Scores for signs and symptoms had the potential range of 0 (no signs and symptoms) to 5 (5 or more).

[b] Developmental Delays at Adoption had the potential range of 0 (no delay) to 10 (severe delays).

[c] Initial Adaptation to Adoption had the potential range of 0 (no problems) to 10 (poor adaptation).

[d] Degrees of freedom for independent t-test: preschool sample: 750 to 752; school-age sample: 339.

SD=4.87). A similar result was found for the school-age sample, t (339)=10.42, $p<.001$. Children with special needs were adopted at an older age (M=46.98 months, SD=37.45) compared to those without special needs (M=15.61 months, SD=15.80). For the preschool and school-age samples, there were no statistically significant differences between the special needs and non-special needs groups on signs and symptoms of pre-adoption adversity, developmental delays at adoption, or Initial Adaptation to Adoption ($ps>.05$).

3.3. Question 4: comparisons of children with and without special needs on behavioral adjustment

Table 4 (bottom portion) and Table 5 summarize the results of the parent-report data from the CBCL. For the preschool sample, there were no statistically significant differences between the special needs and non-special needs groups on Internalizing, Externalizing, and Total Problems ($ps>.05$). For the school-age sample, the only significant difference was on Internalizing problems. Children with no special needs had significantly greater problems compared to the special needs group. The effect size for this comparison, calculated using $(M_{\text{Not Special Needs}}-M_{\text{Special Needs}})/\text{pooled}$ SD, was small, 0.32.

As can be seen in Table 5, the distributions of children classified as normal, borderline, and clinical were similar for the special needs and non-special needs groups. Overall, all groups in the study were reported to have few behavioral problems. Ninety-one percent of the children with special needs in the preschool sample were in the normal category on Total Problems compared to 94% of the children without special needs. Children in the school-age sample were reported to have more problems; however, 80% and 83% of the children with and without special needs, respectively, were determined to be in the normal category.

3.4. Question 5: to what extent does special needs adoption status contribute uniquely to the prediction of adjustment problems as measured by the CBCL and the Initial Adaptation to Adoption?

Multiple regression analyses were used to examine the relation between 10 predictor variables — child's age, age at adoption, child gender, dual-parent status (yes, no), mother's education level,

Table 5
Classifications based on the Child Behavior Checklist by special needs status and age

Variable	Adoption	Normal	Borderline	Clinical	χ^2
Preschool sample (n=754)					
Internalizing	Special needs	92%	6%	2%	0.59
	Non-special needs	91%	6%	3%	
Externalizing	Special needs	94%	2%	5%	2.61
	Non-special needs	94%	4%	2%	
Total	Special needs	91%	6%	3%	4.11
	Non-special needs	94%	2%	4%	
School-age sample (n=341)					
Internalizing	Special needs	85%	12%	3%	2.68
	Non-special needs	85%	7%	8%	
Externalizing	Special needs	90%	0%	10%	4.14
	Non-special needs	84%	6%	9%	
Total	Special needs	80%	8%	12%	4.11
	Non-special needs	83%	9%	8%	

All χ^2 with 2 degrees of freedom were not statistically significant ($p>.05$).

extended family support, family income, early delays, signs and symptoms of early adversity, and special needs adoption status (yes, no) — and four outcome variables: Internalizing, Externalizing, Total CBCL Problems, and Initial Adaptation to Adoption (this variable was natural log transformed to reduce non-normality; multiple regression results for the transformed and untransformed variable were nearly identical and therefore results for the untransformed variable are presented in Tables 6 and 7). Analyses were conducted separately for the preschool and school-age samples. The predictor variables were not strongly related to each other; the largest correlation occurred between special needs adoption and age at adoption (r=.53 and .45 in the preschool and school-age samples, respectively; children adopted at an older age were more likely to be classified as special needs adoptions). To examine the relation between each predictor and each outcome variable, with and without statistical controls, Pearson product moment correlations and beta coefficients were calculated.

Overall the R^2 values for Internalizing, Externalizing, Total Problems, and Initial Adaptation to Adoption were .093, .060, .083, and .072, respectively, in the preschool sample, and .073, .056, .108, and .110 in the school-age sample. Results focusing on the predictor variable of special needs status indicated that this variable was not strongly related to the outcome variables. The Pearson correlation between special needs status and Initial Adaptation to Adoption in the preschool sample was statistically significant but the correlation was not strong (r=.06, p<.05).

Signs and symptoms of adversity was the most consistent predictor of problems in both the preschool and school-aged samples. Parents who observed more signs and symptoms in their adopted children — potential indicators of a less than ideal pre-adoption environment — reported more problem behaviors and more difficulties in their children's initial adaptation to the adoption.

Table 6
Multiple regression analyses of Internalizing, Externalizing, Total Problems and Initial Adaptation to Adoption for the preschool sample (n=751)

Predictor	Internalizing		Externalizing		Total problems		Initial adaptation	
	r	Beta	r	Beta	r	Beta	r	Beta
Child's age	.15***	.15	−.09**	−.10**	.00	.00	.06*	.06
Child's age at adoption [a]	.01	.01	.01	.00	.02	.02	.17***	.20***
Female (1=F, 0=M)	.04	.02	.04	.04	.03	.02	.03	.07
Dual-parent (1=yes, 0=no)	−.01	.05	.04	.07	.02	.08	.02	.07
Mother's education [b]	−.09**	−.08*	−.08*	−.04	−.10**	−.07	.01	.04
Extended family support [c]	−.05	−.04	−.07*	−.08*	−.09**	−.10**	−.02	.00
Family income [d]	−.08*	−.05	−.10**	−.11**	−.10**	−.10*	−.06	−.08
Early delays [e]	.17***	.12***	.14***	.12***	.17***	.13***	.08*	.03
Signs and symptoms [f]	.20***	.18***	.12***	.09*	.19***	.17***	.17***	.16***
Special needs (1=yes, 0=no)	−.02	−.04	.01	.01	−.01	−.03	.06*	−.02
R^2	.093		.060		.083		.072	

*p<.05. **p<.01. ***p<.001.

[a] Child's age at adoption was natural log transformed to reduce non-normality.

[b] Mother's education ranged from 1=high school to 6=post-doctorate.

[c] Extended family support ranged from 1=not supportive to 3=very supportive.

[d] Family income ranged from 1=under 19,999 to 15=over 150,000.

[e] Early delays ranged from 0=no delays to 10=severe delays.

[f] Signs and symptoms ranged from 0 to 5 with higher numbers indicating more signs and symptoms of pre-adoption adversity.

Table 7
Multiple regression analyses of Internalizing, Externalizing, Total Problems and Initial Adaptation to Adoption for the school-age sample (n=339)

Predictor	Internalizing		Externalizing		Total problems		Initial adaptation	
	r	Beta	*r*	Beta	*r*	Beta	*r*	Beta
Child age	.06	.08	−.06	−.08	−.03	−.05	−.13**	−.18***
Child's age at adoption [a]	.01	.03	.08	.08	.09*	.08	.17***	.22***
Female (1=F, 0=M)	−.00	−.05	−.14**	−.16*	−.12*	−.14*	.06	.13*
Dual-Parent (1=yes, 0=no)	.04	.10	.06	.06	.04	.07	−.06	−.01
Mother's education [b]	−.02	−.02	.01	.01	−.03	−.03	.06	.06
Extended family support [c]	−.08	−.12*	−.02	−.04	−.08	−.10	−.15**	−.08
Family income [d]	−.05	−.08	.01	−.01	−.03	−.05	−.08	−.04
Early delays [e]	.10*	.05	.07	.01	.21***	.13*	.13**	.08
Signs and symptoms [f]	.17***	.13*	.12*	.12*	.22***	.17**	.12*	.09
Special needs (1=yes, 0=no)	−.12*	−.19**	−.03	−.11	−.04	−.14*	.07	.01
R^2	.073		.056		.108		.110	

*p<.05. **p<.01. ***p<.001.
[a] Child's age at adoption was natural log transformed to reduce non-normality.
[b] Mother's education ranged from 1=high school to 6=post-doctorate.
[c] Extended family support ranged from 1=not supportive to 3=very supportive.
[d] Family income ranged from 1=under 19,999 to 15=over 150,000.
[e] Early delays ranged from 0=no delays to 10=severe delays.
[f] Signs and symptoms ranged from 0 to 5 with higher numbers indicating more signs and symptoms of pre-adoption adversity.

For the preschool sample, the second most consistent predictor of behavioral problems was child developmental delay status. Children with greater delays tended to have significantly more Internalizing, Externalizing, and Total problems (beta=.12, p<.001; beta=.12, p<.001; beta=.13, p<.001).

The child's age at adoption was not significantly related to Internalizing, Externalizing, and Total Problem behaviors but was positively related to Initial Adaptation in both the preschool and school-age samples. Children who were adopted at an older age tended to be perceived as having greater difficulty adapting to the adoption (betas=.20 and .22, p<.01). Gender of the child was not significantly related to any of the outcomes for the preschool sample. For the school-age sample, female children had significantly more problems with the Initial Adaptation to Adoption (beta=.13, p<.05), but fewer Externalizing and Total Problems (betas=−.16 and −.14, p<.05).

4. Discussion

The present study differs in one substantial way from studies of domestic special needs adoptions. Many domestic special needs adoption studies have focused on the impact of such adoptions on a range of family-level post-adoption outcomes, including family functioning and adjustment (e.g., Leung & Erich, 2002; McDonald et al., 2001), challenges facing adoptive families and/or post-adoption service needs (e.g., Reilly & Platz, 2003, 2004), and success or disruption, defined in terms of whether the adoption proves viable or terminates before or after it is legally finalized (e.g., Rosenthal, Schmidt, & Conner, 1988; Smith & Howard, 1991). On this last question, it has been shown, for example, that while special needs adoptions have been largely successful, disruptions are more common in such adoptions than in non-special needs adoptions (e.g., Barth & Berry, 1990; Berry & Barth, 1989; Barth, Berry, Yoshikami, Goodfield, & Carson, 1988). Even when child-level behavioral adjustment outcomes have been examined in

the domestic adoption research literature (e.g., Simmel, Brooks, Barth & Hinshaw, 2001; Smith, Howard, & Monroe, 1998), they have tended to be done in the context of assessing the contributions of such outcomes to adoption success or disruption (e.g., Barth & Berry, 1988).

In contrast to the predominantly family-level outcomes foci identified above in relation to research on domestic special needs adoptions, the present study analyzed data on Chinese special needs adoption with the following specific purposes in mind: 1) ascertaining the specific conditions associated with special needs classification; 2) exploring the characteristics of families adopting special needs children under identifiable adoptive family configurations within the data; 3) assessing the extent to which children adopted within and outside the special needs classification may differ on key indicators of early adversity, initial adaptation to the adoption, and behavioral adjustment as measured by the CBCL; and 4) exploring the predictive value of special needs status in relation to initial adaptation and CBCL problem scores.

In the context of Chinese laws, special needs adoption is defined in relation to "older and disabled" children who are placed for international adoptions through the "waiting child" program. This construal of special needs adoption contrasts sharply with the use of the term in domestic adoption research and practice in the US, where the criteria for classification as special needs include a wider range of conditions deemed to constitute either a potential impediment to permanent placement or a determinant of poor adoption outcomes. The data presented in this paper affirm older age and the presence of disabilities and health conditions as the central commonality between China and US special needs adoptions. We found no evidence to suggest that "risk" conditions, such as sexual abuse, exposure to drugs, violence, and substance abuse are either acknowledged or documented conditions for special needs adoption from China. Neither did we find the placement of siblings within the same adoptive family as a major dimension of Chinese special needs adoptions. At one level, these results suggest that the Chinese laws are working as intended, since every child classified under the special needs label was older or had a disability.

One finding worth noting in the present study, however, is the sheer diversity of health conditions and "disabilities" represented in the sample of special needs adoptions. While there were major health impairments and disabilities (e.g., spina bifida, muscular dystrophy, and orthopedic problems), many conditions were minor physical attributes (e.g., missing ear, extra thumb, missing two toes, birth marks, or unusual rashes) that would not rise to the level of significant disabilities with potential deleterious implications for optimal functioning in society.

Another indicator that Chinese regulations and guidelines on special needs adoptions may be working as intended is manifested in the finding that children classified as special needs were significantly more likely to be adopted in families that had raised or were raising biological children. The Chinese policy on special needs adoption explicitly seeks families with biological children of their own to adopt these children. It is possible, however, that factors other than policy directives or desires might offer a competing, if not complementary, explanation for the larger numbers of families with biological children adopting special needs children. There is converging evidence from different aspects of our analysis to suggest that family demographics and/or values may have as much driving influence on adoption decisions as the policy dictates of the giving country. We found, for example, that families who adopted special needs children only were preponderantly dual-parent families of various types, and in families with more than one special needs child, there was a greater likelihood for the mother to stay at home or work part-time. Thus, it is highly likely, independent of Chinese adoption policies, that of the population of families seeking to adopt children from China those with biological children of their own are more likely, compared to families with no children, to seek to adopt children classified as having special needs.

Our comparisons involving children adopted within and outside the special needs classification yielded very limited differences. In both the preschool and school-age samples, special needs children were adopted at a significantly older age than non-special needs children. The only other significant difference found in these comparisons actually favored the special needs children — children adopted outside the special needs classification had significantly greater *Internalizing* problems on the CBCL. The two groups of children did not differ on signs and symptoms of pre-adoption adversity, on developmental delays at adoption, or on initial adaptation to the adoption. Finally, the regression analyses did not find special needs status to be significantly predictive of any of the child outcomes. While the variances explained by the significant prediction equations were minimal (variance explained did not exceed 11% in any of the analyses), the variable "signs of symptoms of pre-adoption adversity" was the most consistent predictor of behavioral adjustment problems, as measured on the CBCL, and difficulties in initial adaptation to the adoption within both the preschool and school-age samples.

Regarding age at adoption, research in general has found mixed results with some studies finding that children adopted at older ages are at higher risk for adjustment problems (Verhulst, Althaus, & Versluis-den Bieman, 1992), while other studies have found no relation between age at adoption and later adjustment (Rojewski, Shapiro, & Shapiro, 2000). In the present study, children adopted at an older age did not necessarily have more Internalizing, Externalizing, or Total CBCL behavior problems; however they were more likely to be perceived by their parents as having greater difficulty adjusting to the adoption in the initial phase of the relationship.

Several key findings with policy and practice implications have been reported in this study. First, the types of disabilities associated with the special needs classification in our sample do not appear to pose significant challenges to optimal developmental functioning on the part of the children. Second, notwithstanding their special needs classification, these 124 children from the combined sample of preschool and school-age children did not differ from their non-special needs peers on any of the child outcomes or indicators of pre-adoption adversity (including signs and symptoms and developmental delays) examined in the study. Third, unlike signs and symptoms of pre-adoption adversity and developmental delays at adoption, special needs adoption status per se had no predictive value in relation to measures of behavioral adjustment as observed by parents on the Initial Adaptation to Adoption items or as reported on the CBCL.

For the fields of adoption medicine and behavioral intervention, these findings underscore the importance of thorough developmental evaluations and family counseling to ensure that the initial special needs classification from the sending country does not produce a self-fulfilling prophecy effect either on the child-rearing process on the part of families or on intervention practice on the part of professionals. Such evaluations are also critical to ensure that families needing appropriate interventions in previously identified or unidentified areas can receive such interventions. From the point of view of special needs adoption policy in the sending country, our findings may suggest a need to re-examine the criteria for classifying children under the special needs label. If it turns out that beyond age, the children who are adopted under the special needs classification are no different from all other adopted children on key developmental indicators, policy makers may have a responsibility to examine the ramifications of the current distinction between special and non-special needs adoptions from China. However, since this initial study is exploratory and retrospective in nature, additional evidence examining other dimensions of this problem may be necessary to fully warrant this recommendation.

Longitudinal research, using more diverse samples of children and a wider range of developmental outcomes (e.g., cognitive growth, quality of relationships with peers), assessed

using multiple methods (e.g., interviews, observation) and multiple informants (e.g., teachers, physicians, peers), is needed to evaluate the generality of the present findings. Finally, researchers need to be reminded both of the broader definitional difference in the use of special needs within domestic and international adoption research and of the different use of the label "disability" in the Chinese special needs classification regime.

Acknowledgments

This research was supported in part through funding awarded to the first author by the Research Council of the University of South Florida (New Researcher Grant R053672) and the College of Education (Mini-Grant Program).

References

Achenbach, T. M., & Rescorla, L. A. (2000). *Manual for the ASEBA preschool forms & profiles.* Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

Achenbach, T. M., & Rescorla, L. A. (2000). *Manual for the ASEBA school-agel forms & profiles.* Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

Barth, R. P., & Berry, M. (1988). *Adoption and disruption: Rates, risks, and responses.* New York: Aldine de Gruyter.

Barth, R. P., & Berry, M. (1990). Preventing adoption disruption. *Prevention in Human Services*, *9*(1), 205−222.

Barth, R. P., Berry, M., Yoshikami, R., Goodfield, R. K., & Carsen, M. L. (1988). Predicting adoption disruption. *Social Work*, *33*(3), 227−233.

Berry, M., & Barth, R. P. (1989). Behavior problems of children adopted when older. *Children and Youth Services Review*, *11*(3), 221−238.

Child Welfare League of America. (2006). *Special tabulation of the adoption and foster care analysis reporting system.* Washington, DC: Author.

China Center for Adoption Affairs (CCAA). (2000). Retrieved April 22, 2007, from http://www.china-ccaa.org/site/infocontent/ZCFG_2005100901425793en.htm

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155−159.

Groza, V., & Ryan, S. D. (2002). Pre-adoption stress and its association with child behavior in domestic special needs and international adoptions. *Psychoneuroendocrynology*, *27*, 181−197.

Leung, P., & Erich, S. (2002). Family functioning of adoptive children with special needs: Implications of familial supports and child characteristics. *Children and Youth Services Review*, *24*(11), 799−816.

McDonald, T. P., Propp, J. R., & Murphy, K. C. (2001). The postadoption experience: Child, parent, and family predictors of family adjustment to adoption. *Child Welfare Journal*, *80*(1), 71−94.

McGlone, K., Santos, L., Kazama, L., Fong, R., & Mueller, G. (2002). Psychological stress in adoptive parents of special-needs children. *Child Welfare Journal*, *81*(2), 151−171.

Reilly, T., & Platz, L. (2003). Characteristics and challenges of families who adopted children with special needs: An empirical study. *Children and Youth Services Review*, *25*(10), 781−803.

Reilly, T., & Platz, L. (2004). Post-adoption service needs of families with special needs children: Use, helpfulness, and unmet needs. *Journal of Social Service Research*, *30*(4), 51−67.

Rojewski, J. W., Shapiro, M. S., & Shapiro, M. (2000). Parental assessment of behavior in Chinese adoptees during early childhood. *Child Psychiatry and Human Development*, *31*(1), 79−96.

Rosenthal, J. A. (1993). Outcomes of adoption of children with special-needs. *The Future of Children: Adoption*, *3*(1), 77−88.

Rosenthal, J. A., Schmidt, D., & Conner, J. (1988). Predictors of special-needs adoption disruption: An exploratory study. *Children and Youth Services Review*, *10*, 101−117.

Rycus, J. S., Hughes, R. C., & Goodman, D. A. (1998). Adoption. In J. S. Rycus & R.C. Hughes (Eds.), *Field guide to child welfare — Vol. IV: Placement and permanence* (pp. 885−1063). Washington, DC: CWLA Press.

Schweiger, W. K., & O'Brien, M. (2005). Special needs adoption: An ecological systems approach. *Family Relations*, *54*, 512−522.

Simmel, C., Brooks, D., Barth, R., & Hinshaw, S. (2001). Externalising symptomatology among adoptive youth: Prevalence and pre-adoption risk factors. *Journal of Abnormal Child Psychology*, *29*, 57−69.

Smith, S. L., & Howard, J. (1991). A comparative study of successful and disrupted adoptions. *Social Service Review*, *65*(2), 248−265.

Smith, S. L., & Howard, J. A. (1994). The impact of previous sexual abuse on children's adjustment in adoptive placement. *Social Work*, *39*, 495−501.

Smith, S. L., Howard, J. A., & Monroe, A. D. (1998). An analysis of child behavior problems in adoptions in difficulty. *Journal of Social Service Research*, *24*(1–2), 61−84.

Sullivan, A., & Freundlich, M. (Eds.). (1999). *Achieving excellence in special needs adoption [special issue]Child Welfare Journal*, *78(5)* (pp. 507−517).

Verhulst, F. C., Althaus, M., & Versluis-den Bieman, H. J. M. (1992). Damaging backgrounds: Later adjustment of international adoptees. *Journal of the American Academy of Child and Adolescent Psychiatry*, *31*, 518−524.