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ADJUSTMENT OF FAMILIES WITH CHILDREN ADOPTED FROM EASTERN  
EUROPE

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of  
Philosophy at Virginia Commonwealth University

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## **Abstract**

### **ADJUSTMENT OF FAMILIES WITH CHILDREN ADOPTED FROM EASTERN EUROPE**

By Maria I. Kuznetsova, M.S.

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

Virginia Commonwealth University, 2011.

Major Director: Barbara J. Myers, Ph.D.  
Associate Professor of Psychology  
Department of Psychology

The purpose of this study was to examine the adjustment of older children and adolescents adopted from Eastern Europe and the impact of their preadoption history and family's functioning on their adjustment. This is a follow-up study of families first surveyed in 2005 with an addition of new families. One hundred and forty-five families reporting on 194 adopted children (9 to 19 years; 104 girls) participated in this study at Time 2. The project was conducted as an internet-based survey.

Parents and adopted children reported on children's emotional, behavioral and social problems (CBCL and YSR), as well as family environment (FACES-III and PEQ). Children also reported on their attachment to parents (IPPA) and their preoccupation with adoption (ADQ).



Results revealed that children adopted as infants or toddlers (18 months and younger) evidenced lower problem behaviors and higher competence scores than children adopted at later ages. History of preadoption abuse and/or neglect also played a role. Children without such history scored better on all problem and competency scales than their peers with reported history of either abuse or neglect.

Relationships with the adoptive parents and family environment also contributed to better adjustment in this sample of adopted children. Children from more cohesive families displayed lower levels of internalizing and externalizing problems. Additionally, less conflict between adolescents and their parents was associated with lower levels of these problems. Adolescents with higher attachment levels to their parents self-reported lower internalizing and externalizing problems. Adolescents' interest in their adoptions is a healthy thing; however, excessive preoccupation was associated with higher levels of internalizing behaviors, such as anxiety and depression. Preoccupation with adoption was not related to externalizing behaviors, as reported by children. This study replicates findings of previous studies of intercountry adoption of children from Eastern Europe. Implications of these findings are discussed.

## Adjustment of Families with Children Adopted from Eastern Europe

Adoption is the legal act of placing children with parents who did not give birth to them. Children can be placed for adoption for various reasons: their birth parents could make a decision to place their child for adoption due to their inability to care for or parent the child at that moment; children could have been removed from their birth families due to neglect or abuse; and/or children could lose one or both of their parents to death and become single and double orphans (Abebe, 2009). Adoption is different from foster care in that it provides a permanent placement for the child. Adoptive parents are legal guardians, unlike foster care in which the child is a ward of the state but under the temporary care of foster parents.

There are several forms of adoption. Among them are kinship adoption, which is adoption of children by their relatives, domestic adoption (open or closed), and international adoptions. Domestic adoption is the adoption of children who are from the same country as the adoptive parents, either through the public welfare system or private adoption (Brodzinsky, Smith, & Brodzinsky, 1998). In agency adoptions (both public and private), the birth parents legally surrender their child to the agency and consent to the adoption by specific parents. Comparatively, in independent or private adoption, birth parents provide their consent directly to adoptive parents (Brodzinsky et al., 1998). Domestic adoptions can be open or closed. In an open adoption there is open communication between the birth parents, adoptive parents, and the child, although level of openness varies from case to case. In a closed adoption, adoptive parents never meet the birth parents of the child, and all the legal procedures are mediated by an adoption agency or attorney. Birth parents never receive any contact information on their birth child's whereabouts and adjustment, and the adopted

child never meets his birth parents once placed in an adoptive home, although the child can do the search of his birth parents as an adult if he wishes. The current trend in the United States is that open adoptions are encouraged by adoption agencies (Berge, Mendenhall, Wrobel, Grotevant, & McRoy, 2006; Brodzinsky, 2007; Rampage, Eovaldi, Ma, & Weigel-Foy, 2003).

International adoption (also now referred to as intercountry adoption) in the U.S. involves the adoption of children from other countries and is usually arranged through adoption agencies. Intercountry adoption is generally assumed to be a closed adoption as most of the adoptive families are not provided with the contact information for their adopted child's birthparents. Adoptions may be finalized abroad or in the U.S., depending on the laws of the country wherein the child resides. Intercountry adoption in the U.S. has occurred for many years, resulting in a steady stream of children from a variety of countries.

The goal of the present study is to examine the adjustment of older children and adolescents adopted from Eastern Europe and the impact of their preadoption history, such as age at the time of adoption, history of abuse and/or neglect, and family's functioning on their current psychosocial adjustment. Additional research questions in this study explore the relationships among adopted children's preoccupation with adoption, their current attachment to their adoptive parents, and their emotional and behavioral problems. First, the phenomenon of adoption in the U.S. is discussed.

### **Adoption in the United States**

Adoption is a normative part of Americans' lives. A national survey conducted in 2002 found that 64% of respondents reported that a family member or close friend had been adopted, had adopted, or had placed a child for adoption, up from 58% in 1997 (Evan B.

Donaldson Adoption Institute, 2002). The most recent available statistics indicated that in 2007 over 133,000 children were adopted domestically (Rosman, Johnson, & Callahan, 2011) and about 20,000 from abroad (U.S. Department of State, 2010).

Approximately, one million children have been internationally adopted world-wide (Selman, 2009). In 2000, there were 2.1 million adopted children in the United States (2.5% of all U.S. children; U.S. Census Bureau, 2000), accounting for both domestic and intercountry adoptions. International adoptions are culturally accepted by most Americans; the number of adopted children in the U.S. is 4-16 times greater than in other countries (Selman, 2002). About 20% of adopted children are brought to the U.S. from other countries (Kent & Mather, 2002), most frequently in recent years from Russia, China, Guatemala, and Korea.

Historically, United States citizens began adopting children from other countries in substantial numbers following World War II. Many of the orphaned children adopted were of European and Japanese descent. Additional adoptions followed civil war in Greece (1946-1949), the Korean War (1950-1953) and Vietnam (1954-1975) (Selman, 2009). War and its aftermath are not the only factors that led those countries to allow their children to be adopted abroad. Desperate poverty and social upheaval have also served as critical factors in the adoption of children from Latin America, the former Soviet Union, and Eastern Europe over the last twenty years (Gailey, 2000). In China, governmental population control policies have contributed to the abandonment of infant girls and overcrowded orphanages and influenced the government's decision to facilitate international adoptions (Gailey, 2000). Overall, the decision to adopt internationally is most often due to social problems and political instability, simplicity, the cost of adoption, and being able to find an infant versus an

older child. Intercountry adoption has been viewed, for many, as a first choice among middle-class families (Biafora & Esposito, 2007).

### **Hague Convention on Intercountry Adoption (HCIA)**

The Hague Convention on *Protection of Children and Co-operation in Respect of Intercountry Adoption*, often referred to as the Hague Convention on Intercountry Adoption (HCIA), is an international agreement dating back to 1993 that has been signed by over 80 nations (Hague Permanent Bureau, 2011; Rotabi, 2011). Its intended purpose is to prevent child sales and abduction under the guise of intercountry adoption, specifically preventing child trafficking with agreed upon international standards of adoption practice (Rotabi, 2008, 2009, 2011). The United States joined the HCIA in 1994, but it was not until April 2008 that the convention was fully implemented with specific rules governing intercountry adoption practices, including U.S.-based adoption agency activities (Hague Permanent Bureau, 2011; Rotabi, 2008, 2009, 2011; U.S. Department of State (US DOS), 2011).

The HCIA establishes standards to ensure the best interests of the child and is intended to curb abuses in intercountry adoption practice by specifying core requirements (Rotabi & Gibbons, 2009). Broadly, these standards include the following elements (Rotabi & Bunkers, 2008; Rotabi, 2008, 2009, 2011):

- Each country must designate a “Central Authority” for child welfare and adoption. This authority will coordinate both domestic and intercountry adoption policy and practice;
- Require that consent to adopt be informed and freely given by birth parents;
- Provide for a system of accreditation for intercountry adoption practitioners;

- Prohibit "improper financial or other gain," requiring that only costs and expenses, including reasonable professional fees, be charged of adoptive parents;
- Require preservation of medical and other records.

In the U.S., any adoption agency that handles adoptions from another HCIA-nation (i.e., China and Guatemala) must now be approved and accredited by the U.S. Central Authority (US DOS, 2011). This function is managed by the Council on Accreditation (US DOS, 2011). Agency accreditation standards require that agencies must have transparent fee structures, manage their adoption records (including home studies) within HCIA standards and guidelines, and supervise their providers in the U.S. as well as those working in another HCIA-nation. Other standards include training requirements for agency staff as well as prospective adoptive parents and other measures to ensure best practices (Rotabi, 2008, 2009). Again, these international standards of practice have been implemented to prevent the sales and abduction of children under the guise of intercountry adoption.

### **Adoptions from Eastern European Nations**

Children adopted internationally comprise about 20% of the adopted children in the United States. The number of intercountry adoptees in the U. S. has declined more than 50% in recent years, from 22,991 children in 2004 compared to 11,058 in 2010 (U.S. Department of State, 2010). There are multiple reasons for this decline: more stringent laws and requirements for intercountry adoption in foreign countries, examples of which are discussed later, as well as changes in the domestic and global economic situation, that make it harder for U.S. citizens to adopt. Still, the U.S. continues to receive the highest number of children through intercountry adoption (Selman, 2010). As a result, a large number of children in the

U.S. were born and spent their early months or years in other countries and now have U.S.-citizen parents and extended families.

A large portion of the international adoptees in the U.S. from the late 1990's to the 2000's originated from Eastern European countries. Adoptions from Eastern Europe started in the early 1990s with the fall of the communist regime of the USSR. Many of these children are now in, or approaching, adolescence. According to the U.S. Department of State (US DOS, n.d.), more than 47,000 children were adopted from Russia alone between 1998 and 2010, followed by over 8,500 children from Ukraine and a little fewer than 3,000 from Romania. Among other countries of the former communist bloc from which children have been adopted into the United States are Kazakhstan, Kyrgyzstan, Poland, Belarus, and Bulgaria. Most children who were adopted internationally, and especially from the former Soviet Union bloc, experienced some level of deprivation prior to their placement with their adoptive parents (Gunnar, Bruce, & Grotevant, 2000; Rutter, Beckett, Castle, Colvert, Kreppner, Mehta, Stevens, & Sonuga-Barke, 2007). The majority of children who are adopted from countries of the former Eastern communist bloc spent their first months or years prior to adoption in institutional care.

Many countries from the Eastern bloc (i.e., Romania, Poland, Slovenia, Latvia, etc.) have signed and ratified the HCIA. As for Russia, the country from which most Eastern European children are adopted, the nation has signed the Convention in 2000, but has not yet ratified the agreement (Hague Permanent Bureau, 2011). As a result, Russia is not currently considered a Convention nation (U.S. Department of State, 2011; Hague Permanent Bureau, 2011); however, Russia did indicate its intention to ratify the international private law (Freivalds, 2007). Adoptions from Convention countries usually guarantee a more accurate

pre-adoptive history on a child, strong prospective family assessments, and better adoption services in general (Adoption Guide, 2009; Rotabi, 2008, 2011).

Recently, Russia has placed more importance on signing a bilateral agreement between the United States and the Russian Federation regarding the adoption of Russian children by U.S. citizens (Agency for Social Information, 2011). This was driven by a highly publicized case in the spring of 2010, when a 7-year-old Russian adoptee was sent back to Russia, unaccompanied, by his American adoptive mother after he spent six months with the family (Good Morning America, 2010). The adoptive mother claimed that she simply was not prepared to deal with the level of behavioral problems this young boy displayed, and that critical psychological information was withheld from her before the adoption (Associated Press, 2010). This was not the only unsuccessful case of an American citizen adopting a Russian orphan. There have been a number of cases when Russian adoptees were abused by American families, and when American families were simply not prepared to deal with the level of emotional and behavioral problems these children displayed (Rotabi & Heine, 2010). Russian and international media's focus on unsuccessful international adoption cases was one of the reasons for making adoption procedures more complex, and as a result, the significant decline in intercountry adoptions occurred (Selman, 2009).

Russian officials assert that if there is a more stringent procedure for screening U.S. families and requirements for preadoption education, crisis cases could be prevented in the future (Agency for Social Information, 2011). As a result, in July of 2011, Russian Foreign Minister Lavrov and the U.S. Secretary of State Clinton signed the bilateral agreement (U.S. Department of State, July/2011). According to the agreement, U.S. families can continue to adopt Russian orphans, but only if they do so through a Hague-accredited adoption agency



that is officially approved by Russian authorities. The bilateral agreement also placed more stringent procedures both in pre-placement family preparation and for post-adoption monitoring, including follow-up family home visits by social worker.

On the other hand, if prospective adoptive families are fully informed about children's developmental problems, they could be better equipped to help the child and seek appropriate resources as needed. This is one of the aspects of intercountry adoptions that is attempted to be regulated by the HCIA. This service area also has been outlined in the bilateral agreement between the U.S. and Russian Federation. The recently signed agreement calls for more complete information about prospective adoptive children's socio-emotional and health status so that prospective adoptive families can be fully informed and prepared for the challenges of special needs children (U.S. State Department, July/2011).

It is important to remember that not all children from intercountry adoption display emotional and/or behavioral problems; many of them are well adjusted (Vandivere, Marlm, & Radel, 2009). Often this is predicted by age of child when adopted and the length of stay in institutional care. Prevalence of psychological problems among internationally adopted children and issues unique to adopted children are discussed next.

## **Review of the Literature**

### **Issues Unique to Adopted Children: Theoretical Foundation and Constructs**

The most frequently addressed issues of adopted children are attachment problems and identity development (Javier, Baden, Biafora, Camacho-Gingerich, & Henderson, 2007). Attachment problems do not appear to be an issue for children adopted as infants, before 6-12 months of age (van den Dries, Juffer, van IJzendoorn, & Bakermans-Kranenburg, 2009). This can be explained by attachment theory, according to which attachment behavior is just

starting to form during the first year of life. Even if there were some inconsistencies in caregivers during that time, infants can still form a secure attachment with their new permanent caretaker (more explanation for attachment theory and its relevance to adopted children is provided in the section titled “Attachment and adoption”).

Within Erikson’s psychosocial theory (Erikson, 1959), the first stage in development, “basic trust versus mistrust,” generally takes place during the first year of life. At this stage, infants learn either to trust or not to trust people who surround them with care for their basic needs, such as food, warmth, and physical contact. The developmental crisis of “trust versus mistrust” resembles the concept of attachment. If this crisis is not resolved successfully, it is more difficult to resolve the following crises/stages. Identity search is a central theme of life in adolescence and early adulthood, according to Erikson (Erikson, 1959). Based on his theory, identity formation starts during adolescence, and whether this crisis is successfully resolved will depend on how successfully the child resolved the previous crises such as trust, autonomy, initiative and industry. Thus, if a child does not learn to trust people earlier in life, then the process of identity search becomes more difficult. Adolescence is a tough time for teens in general, as they are searching for their identities. The process of identity development for adolescents may become even more complicated if a teen has adoptive parents of a different ethnic and cultural background.

Family environment can play a role in how adopted children handle issues unique to their adoptive status. In general, families that function well promote a healthier development for their children (Grigorenko & Sternberg, 2001, Shonkoff & Phillips, 2000, Wachs, 2000). Thus, children whose parents are warm, responsive, and set limits tend to be more academically and socially competent (Baumrind, 1989). Families that are not doing well in

their relationships come in many varieties. For example, research showed that children's functioning declines in families with conflicted spouses (Cummings, Goeke-Morey, & Papp, 2003). With regard to parenting style, children raised in authoritarian families tend to be more dependent and passive; they are also less socially adept, self-assured, and intellectually curious (Steinberg & Silk, 2002). Additionally, and not surprisingly, ineffective parental monitoring has been associated with children's antisocial behavior (Collins, Madsen, & Susman-Stillman, 2002). Yet, there are a lot of children who develop normally despite adverse family environments (e.g., poverty, abuse, neglect). At the same time, there are children with emotional and behavioral problems who were raised in well-functioning families. Family environment alone cannot predict a child's developmental trajectory, even though multiple studies have shown how it may influence a child's development. Moreover, according to the transactional model of development, it is not parents alone who affect children's behavior; children themselves can change their parents' behavior as well (Sameroff & Fiese, 2000).

In the following sections, aspects of attachment and identity development as they related to adopted children, as well as a more thorough investigation of studies describing adjustment of internationally adopted children, will be described, followed by a discussion on the importance of the family environment on the development of adopted children.

**Attachment and adoption.** According to Mary Ainsworth (1967), attachment behavior emerges gradually over the first year of life. First signs of attachment are seen at about 7 to 9 months (Zeanah & Boris, 2000); for example, infants start turning preferentially to their attachment figure when they experience discomfort. This is also the age at which

children first experience stranger wariness and show discomfort when they are separated from their attachment figure.

Since attachment behavior emerges during the first year of life, it is assumed that children who spend their first several years in an institution are less likely to develop secure attachments as they are without a single caretaker with whom they can develop a close attachment or bond. As noted by the St. Petersburg-USA Orphanage Research Team (2008), on average children in the orphanages have approximately 9-12 caregivers per week during the first few months of life and from 60 to 100 different caregivers, plus professionals, during the first two years of their lives. Given that the child is cared for by several caretakers, the children may become confused about their primary caretaker and fail to develop secure attachment with anyone or, alternatively, form diffuse attachments. In other words, children do not develop any attachment as they simply do not have a figure around them with whom they could form this bond. Bowlby believed that the development of psychopathology was related to partial or complete “maternal deprivation” of children in their early years (Bowlby, 1966), i.e. neglect of the child, mother’s failure to respond to the child’s cry, etc. Although children are physically cared for (i.e., given food, shelter, clothing) in the orphanages, it is likely that they are not provided the same level of emotional care as children raised by their biological parents (St. Petersburg-USA Orphanage Research Team, 2008), thereby increasing their risk for psychological problems.

Attachment issues become especially problematic for children who are adopted at an older age (after infancy) and who had an unstable history of caregivers prior to the adoption. This can be illustrated through a series of studies conducted with children adopted into U.S.,

Canadian, and United Kingdom (U.K.) families from Romanian orphanages, where there was a lack of consistency of orphanage caregivers.

One such study addressed disinhibited attachment among children adopted from Romania into families in the U.K. (Rutter, Colvert, Kreppner, Beckett, Castle, Groothues, Hawkins, O'Connor, Stevens, & Sonuga-Barke, 2007b). Disinhibited attachment is a type of attachment that is manifested by indiscriminate sociability (excessive attempts to receive affection from any adult around, even strangers). Rutter et al.'s (2007b) study was longitudinal in nature, with 111 children adopted from Romanian orphanages who were compared with 52 U.K.-born domestically adopted children. The researchers examined adopted children's attachment at 6 and 11 years of age. The researchers used parental reports, a Strange Situation procedure modified for use in the home, and systematic standardized investigator ratings of the children's behavior. At age 6 years, a majority of the children (70%) adopted from Romania after 6 months of age displayed mild or marked signs of disinhibited attachment. Overall, disinhibited attachment per parental report evidenced a high degree of persistence from six to 11 year of age, though not for every child. Specifically, out of 83 children with mild (44%) or marked (26%) disinhibition at age 6, 45 (54%) showed signs of disinhibition 5 years later. Disinhibited attachment was strongly associated with institutional rearing, but there was no increase in relation to duration of institutional deprivation beyond 6 months of age. Mild, but not marked, disinhibited attachment was frequent (56%) in 6-year old domestically adopted U.K. children (who spent no time in an orphanage) as well. Additionally, in the post-institutionalized Romanian children, disinhibited attachment was associated with other forms of psychopathology, such as inattention/overactivity, conduct problems, cognitive impairment, quasi-autism and peer

relationship problems, and higher service usage at age 6. The authors concluded that “the pattern of disinhibited attachment, when seen in children who have experienced institutional rearing lasting at least until the age of 6 months, constitutes a meaningfully distinctive behavioral pattern that is indicative of a clinically significant disorder” (Rutter et al., 2007b, p. 28).

A meta-analysis of studies examining attachment in adopted children showed that children adopted from Eastern Europe, such as Romania, were less likely to show attachment security than children adopted from such Asian countries as China and India (van den Dries et al., 2009). This was explained by the fact that children from Eastern European countries lived in institutions prior to their adoption, as compared to a foster care system that predominated in Asian countries. Institutional care is frequently associated with socio-emotional deprivation (The St. Petersburg-USA Orphanage Research Team, 2008).

As mentioned above, attachment issues place adopted children at great risk for emotional and behavioral problems, and these problems can place a toll on adoptive families as well. Even though most adoptive families have adequate income, education, and other needed resources (McGue, Keyes, Sharma, Elkins, Legrand, Johnson, & Iacono, 2007; Wachs, 2000), families still find it stressful to deal with the psychological issues of their adopted children.

Besides attachment, other processes may be affected by spending a longer time in an institutional nursery. This could include issues related to nutrition, brain development (Rutter et al., 2007), and play and stimulation (St. Petersburg-USA Orphanage Research Team, 2008). If a child is not able to receive a reasonable level of these experience-expectant opportunities, and at a typical age, development may be impeded. In fact, many researchers

agree that the onset of experience-expectant or universal behaviors usually must appear early on in life as there appears to be a sensitive period of development for such behaviors (Wachs, 2000).

**Identity issues in adopted children.** Adoption may threaten adolescents' sense of identity. Adopted individuals often express feelings related to confused identity and identity crises (Silverstein & Kaplan, 2001). There are multiple arenas of identity, and some of them can be easier to develop for adopted teens than others. Adoption researchers have recently proposed adoptive identity (Grotevant, Dunbar, Kohler, & Lash Esau, 2007) as an extension to Erikson's theory. Adoptive identity search is a developmental process of how an individual constructs meaning about his or her adoption. Researchers identified three aspects of adoptive identity: self-definition, coherence of personality, and the sense of continuity over time. Self-definition refers to characteristics by which an individual identifies himself and by which individuals are recognized by others within a certain social and historical context. For example, an individual may accept the fact that he is adopted, yet he does not want others to constantly bring it up and would rather be treated like other non-adopted counterparts. Coherence of personality is an aspect of adoptive identity of how various aspects of a person's identity fit together, i.e., does a person's adoptive identity conflict with his religious identity. And sense of continuity refers to linking past, present, and future across places, multiple contexts and relationships. Unlike with other identity arenas (religion, political, vocational), adopted individuals cannot really search for their adoptive identity, but instead they have come to terms with it and accept their adoptive status (Grotevant, 1997). Thus, the task of identity formation may be more complex for adopted than for non-adopted individuals.

In their adoptive identity search process, adopted individuals are sometimes interested in knowing why they were adopted. A recent British survey of social workers identified three types of reasons that children are placed for adoption: children whose birth parents made a decision to place them for adoption before they were born, children who initially lived with their birth parents but whose birth parents later decided to place their child for adoption; and children who were removed from their birth families due to abuse or neglect (Neil, 2000). Neil concludes that because of a multiplicity of difficulties in the background of adopted children, resolving identity issues will likely be challenging. Multiple researchers have discussed identity issues among adopted individuals and speculated that identity problems are related to emotional and behavioral issues (e.g., Grotevant et al., 2007), but only a few studies have queried the adopted adolescents themselves (i.e., Berge, Mendenhall, Wrobel, Grotevant, & McRoy, 2006; Korff, Grotevant, & McRoy, 2006; Mendenhall, Berge, Wrobel, Grotevant, & McRoy, 2004). These studies were conducted with domestically adopted children in the U.S. and mainly focused on adolescents' satisfaction with their adoption. One recent study examined internationally adopted children's interest and feelings about their adoptive status (Juffer & Tieman, 2009), yet no studies to date have measured interest, feelings, and identity issues related to adoption among children adopted from Eastern Europe. Only one qualitative dissertation study was found specifically addressing experiences of adolescents adopted from Russia (Salmi, 2009). The proposed study addressed this issue by asking adopted adolescents to provide their input on how they are doing and how preoccupied they are with their adoptive status.



## **Research Involving Internationally Adopted Children**

Well-designed international studies have been conducted exploring the effects of orphanage institutionalization on children's development (e.g., Gunnar, van Dulmen, & IAP, 2007; Hellerstedt, Madsen, Gunnar, Grotevant, Lee, Johnson, 2008; Rutter, Kreppner, & O'Connor, 2001; Rutter et al., 2007; The St. Petersburg-USA Orphanage Research Team, 2008, Windsor, Glaze, & Koga, 2007). Overall, this research shows positive outcomes for a majority of children adopted into private homes from institutions. Though the orphanage-reared children show delays prior to adoption, the children evidence tremendous catch-up in development (e.g., Bakermans-Kranenburg, van IJzendoorn, & Juffer, 2008; van IJzendoorn & Juffer, 2006; Rutter, 1998; Rutter et al., 2007). Yet, other studies have indicated that these adopted children are more likely to experience emotional, behavioral, social and/or academic problems than their non-adopted peers (i.e., Andresen, 1992; Bimmel, Juffer, van IJzendoorn, & Bakermans-Kranenburg, 2003; Brand & Brinich, 1999; Brodzinsky, Radice, Huffman, & Merkler, 1987; Groze, 1996; Verhulst, Althaus, & Versluis-den Bieman, 1990). The peer comparisons in these studies are non-adopted children born in the U.S. or other countries where the studies were conducted.

A meta-analysis of ten studies examined problem behavior in internationally adopted adolescents (Bimmel et al., 2003). The samples in the ten studies were children who were adopted as infants or young children from different foreign countries. The major finding of the meta-analysis was that international adoptees displayed slightly more behavior problems than their non-adopted peers, with the difference seen in externalizing, but not in internalizing, problems. A minority of the studies found heightened behavior problems in the adopted children, and when samples were examined separately by gender, only the adopted

girls evidenced more behavior problems than their non-adopted counterparts. For example, out of the ten studies, only two found more behavior problems in adopted girls than in non-adopted girls, while five indicated no more behavior problems in adopted adolescents (either boys or girls) than in their non-adopted peers. The remaining three studies had mixed findings depending on the gender of child. For instance, one study revealed that adopted girls scored higher than the general population on internalizing and externalizing problems, whereas adopted boys scored higher on attention problems and on delinquent and aggressive behaviors.

A more recent meta-analysis of studies examining behavior problems and mental health referrals of international adoptees revealed that internationally adopted children with evidence of preadoption deprivation displayed more total problems and externalizing problems than children without a history of such deprivation (Juffer & van IJzendoorn, 2005). However, based on 64 articles used for this meta-analysis, internationally adopted children showed fewer behavior problems than domestically adopted children. It is important to note that in this meta-analysis researchers combined internationally adopted children into one group, and did not conduct separate analyses comparing children adopted from different countries. Their international adoptees group included children from Romania, Russia, Korea, India, Colombia, Thailand, China, etc.

Cognitive development is also a concern for internationally adopted children. In general, research has shown that children adopted from institutional care experienced in Eastern Europe show some level of cognitive problems, which is usually revealed after they are adopted and once they start attending school (Castle, Groothues, Bredenkamp, Beckett, O'Connor, & Rutter, 1999; Gunnar et al., 2000; O'Connor, Rutter, Beckett, Keaveney,

Kreppner et al., 2000; van IJzendoorn & Juffer, 2006). A meta-analysis conducted by van IJzendoorn and Juffer (2006) of 270 studies involving more than 230,000 adopted and non-adopted children, revealed that the percentage of adopted children experiencing learning difficulties is significantly higher than that of non-adopted children. This analysis included children adopted both domestically and internationally, while their comparison groups were home reared children who had never been in institutions and were non-adopted. Their major conclusion was that adoptees may have some cognitive deficits initially, but that these deficits diminish after children spend some time living in their adoptive homes. Interestingly, this meta-analysis showed that, in general, the average IQ of the adopted children was within a normal range, and that there were non-significant differences in the IQ of adopted children and their non-adopted peers. Yet, adopted children had lower school achievement scores as compared to non-adopted children. Even though there was some catch-up for school achievement among adoptees, adopted children were not able to improve to the same level as non-adopted children, especially for those who were adopted at ages older than 12 months (van IJzendoorn & Juffer, 2006).

A review of studies specifically involving post-institutionalized children showed that some of the international adoptees had reached the same developmental levels as their non-adopted peers two to four years after adoption (Meese, 2005). However, the length of time spent in an orphanage prior to adoption was related to the cognitive delays and behavioral problems. The studies reviewed included samples of children adopted from various Eastern European countries, with study sample sizes ranging from 15 to 462 children. A majority of the adopted samples were from Romania. Meese concludes that post-institutionalized children constitute a high-risk group for school problems. She suggests it is important to

conduct assessments of such children and provide necessary assistance as early as possible to ameliorate future academic problems. Meese also provided recommendations for future research, noting that a majority of the longitudinal studies involved Romanian children adopted into homes in the United Kingdom and Canada. Specifically, she stated that there is a need for more thorough research of children born in Russia and other Eastern European countries and adopted by families in the U. S. as there is a big number of them in this country.

Next, a large-scale study involving children adopted from institutions in Romania into the families in the United Kingdom will be discussed. This study is one of the few studies that followed families with children adopted from Romania. This massive study examined numerous aspects of the children's adjustment and recovery after living in an institution. This set of studies is worthy of examining in detail as they are methodologically strong.

### **English and Romanian Adoptees (ERA) Study**

A large set of studies examining the effects of early deprivation among adopted children were conducted with Romanian children adopted into the United Kingdom (Beckett, Maughan, Rutter, Castle, Colvert, Groothues, Hawkins, Kreppner, O'Connor, Stevens, & Sonuga-Barke, 2007; Castle et al., 1999; O'Connor et al., 2000; Rutter, 1998; Rutter et al., 2007). Researchers with the English and Romanian Adoptees (ERA) Study Team conducted a series of longitudinal studies, following children adopted from Romania from the time of their placement with U.K. families; these children are compared with domestically adopted children. The investigators assessed multiple areas of children's development, including physical, psychosocial, and cognitive aspects. Most of the children are now in their

adolescence, and this research is still ongoing. These studies show the developmental nature of cognitive abilities as well as resilience of this group of internationally adopted children.

Researchers focusing on studying children's development in institutions note that infants and toddlers lose about one month of physical and socio-emotional growth for every 3-4 months they spend in an orphanage setting (Gunnar, 2001; Johnson, 2001; Pollak, Nelson, Schlaak, Roeber, Wewerka, Wiik, Frenn, Loman, & Gunnar, 2010; St. Petersburg-USA Orphanage Research Team, 2005, 2008). The ERA study found substantial developmental catch-up among formerly institutionalized children. Their sample evidenced essentially complete catch-up in weight and height by the age of 6 years. However, although the adopted children showed some catch-up in their head circumference growth, children's head circumference at age 11 years was still on average one standard deviation lower than in the general population. Yet, internationally adopted children displayed spectacular recovery in cognitive development. For example, whereas their developmental quotient on average was about 50 when they were first placed in adoptive homes, by age 11 adopted children's average IQ increased to 90 (Rutter et al., 2007).

In one of the ERA studies of children's cognitive and school attainment, researchers assessed 127 Romanian adoptees who were adopted between 0 and 42 months at ages 4, 6 and 11 years (Beckett et al., 2007); these children were in institutional care prior to adoption. Their scores were compared to 49 children who were born to UK mothers and adopted domestically in the UK, before 6 months of age. The UK infants had not been in institutional care prior to their adoption. Adoptive parents were asked to complete the Denver Developmental Assessment based on what they remembered about their child's language and developmental skills when the child was first placed with them; this retrospective assessment

was collected when the children were 4 years old. Additionally, information on child's weight, height, and head circumference up on arrival into the adoptive home was collected. Children's cognitive scores were assessed at ages 6 and 11. At age 11, researchers assessed school achievement (e.g., reading, mathematical reasoning). Additionally, researchers measured Inattention/Overactivity (I/O) and emotional and conduct problems at ages 6 and 11 by asking children's teachers to complete the revised Rutter teacher scales for school age children.

The initial results of the study showed that Romanian adoptees' developmental level on arrival (measured at age four by parents' retrospective accounts) was predictive of their cognitive level and language development at age 6 and 11 (Beckett et al., 2007). At age 11, the UK-born children adopted domestically before 6 months of age were on track in school scores with British age norms, whereas children adopted from Romania at age 6 months or older scored approximately one standard deviation below the domestically adopted children. Interestingly, there were no achievement score differences between the domestically and the internationally adopted children who were placed before 6 months of age. The cut-point of before and after 6 months of age for adoption appears to be an important marker for whether institutionalization leaves its mark on the child's development. At age 6 years there was a significant correlation between children's IQ score and time spent in an institution, but this correlation was only significant for adopted children who were placed within adoptive homes after 6 months of age. At age 11, this correlation was no longer significant. Duration in institutional care was modestly related to basic reading and mathematical reasoning, but duration of institutional care had a non-significant correlation with reading comprehension for the 11-year olds (Beckett et al., 2007). The authors were not able to explain these trends.

It is possible that dose-response relationship between time spent in an orphanage and cognitive development disappears with age. The more time adopted children spend in well functioning families, the higher the likelihood that this more positive environment will negate the impact of early institutional deprivation.

Romanian children who were adopted when they were older than 6 months additionally had higher scores on inattention/overactivity at both age 6 and 11 as compared to domestically adopted children and Romanian children who spent less than 6 months in an institution (Beckett et al., 2007). The researchers could not provide a clear explanation for why this trend was evident, but they offered a hypothesis relating it to early deprivation and brain development. A small pilot study investigated children's brain structure using magnetic resonance imaging (MRI). The initial results showed that Romanian adoptees who displayed problems in their development, including higher levels of inattention/overactivity, had a significantly lower corpus callosum volume than children without such problems. Research with the general population has also shown that the corpus callosum is one of the brain areas that seems to be affected in children with attention deficits and hyperactivity (Glanzman & Blum, 2007).

Adoptive parents' background was also incorporated into their analyses to assess the importance of home environment on children's cognitive development. Adoptive mothers' cognitive abilities and adoptive parents' educational levels were collected. Romanian and within-UK adoptive parents did not differ. There was no relationship between adoptive parents' cognitive scores or parental educational levels and their children's cognitive scores (Beckett et al., 2007). The study authors suggest that this non-connection could be explained by restriction of range in cognitive abilities, educational levels, and socio-economic status

among adoptive parents, who tend to have higher education and income (Hellerstedt et al., 2008; McGue, Keyes, Sharma, Elkins, Legrand, Johnson, & Iacono, 2007; Wachs, 2000).

Beckett and her colleagues (2007) also explored potential relationships between early deprivation, inattention/overactivity, and cognitive and achievement outcomes. Teachers' reports of inattention/overactivity at age 6 moderately predicted children's lower achievement scores at age 11. In addition, higher levels of inattention/overactivity predicted lower cognitive abilities at ages 6 and 11 in both domestically and internationally adopted children.

IQ, of course, accounts for much of the variance in children's school achievement scores. Beckett et al. (2007) asked whether inattention/overactivity and adoption group status could add anything extra. When stepwise regression analyses were conducted, IQ scores accounted for 48% of the variance in basic reading, Inattention/Overactivity (I/O) scores accounted for a further significant 4% of the variance, and group status (domestic or international adoption) added a further 2% to the variance. A similar analysis for reading comprehension revealed that IQ accounted for 56% and I/O added a further significant 2% to the variance, while group status contributed a further 1% to the variation. For mathematical reasoning, IQ accounted for 56% of the variance, I/O added a further significant 5%, and group status added 3% to the variation (Beckett et al., 2007). Thus, a child's level of I/O and type of adoption, added small but significant portions of the variance to children's cognitive achievement, after accounting for the child's IQ. It can be summarized that even though institutional deprivation prior to adoption did not have a direct affect on children's later school achievement, it still made a small but significant impact on their intellectual functioning and as a result contributed to lower achievement scores.



Overall, the results of Beckett et al.'s study showed that developmental levels of children upon arrival from Romania were not significant predictors of children's school achievement at age 11 beyond that already mediated by IQ. Their results also indicated that adoption of infants before they reached 6 months had virtually no effect on their cognitive development later on life. For both IQ and scholastic attainment, the main effect of institutional care was evident for children who lived in institutional care for 6 months or longer before they were adopted. Interestingly, there was no further dose-response effect within the range of 6 - 42 months, meaning children adopted at age 6 months were just as likely to experience difficulties as children adopted at an older age.

When looking at the factors that might have predicted cognitive outcomes in adopted children, overall impairment at the time of placement with a family was not found to be highly predictive. However, presence of some language skills upon arrival served as a protective factor to cognitive development later on (Rutter et al., 2007). Within this finding it can be suggested that prospective adoptive parents can be warned not to worry too much about child's developmental level at the time of placement, as most of the post-institutionalized children catch up fairly quickly. Yet adoptive parents need to pay attention to the child's language skills, and if the child does not display any language skills, then it can be a sign for concern.

The same research team (ERA Study Team) also looked at emotional and conduct difficulties among Romanian adoptees as measured by the Rutter behavioral scales (Rutter et al., 2001). Among emotional disturbances items were: "has had tears on arrival at school or has refused to go into the building in the past 12 months; gives up easily; often worried, worries about many things; often appears miserable, unhappy, tearful or distressed; cries

easily; tends to be fearful or afraid of new things or new situations; stares into space and often complains of aches and pains” (Rutter et al., 2001, p. 98), which are comparable to internalizing problem items on the Child Behavior Checklist (CBCL; Achenbach, 1991). Conduct problem items which are similar to the CBCL’s externalizing scale included: “often destroys own or others’ property; frequently fights or is extremely quarrelsome with other children; is often disobedient; often tells lies; has stolen things on one or more occasions in the past 12 months; disturbs other children; bullies other children; blames others for things; is inconsiderate of others, kicks, bites other children” (Rutter et al., 2001, p. 98). Their findings showed that at age 6 years Romanian adoptees and domestic adoptees did not differ significantly on measures of emotional and behavioral disturbances, but by age 11 some differences were noted. By 11 years, emotional problems were significantly more frequent in Romanian sample than in domestically adopted sample. The researchers stated that it could be explained by “the relatively deprivation-specific patterns already evident at age 6” (Rutter et al., 2007, p. 346).

The findings from the ERA study and other studies with children adopted from institutions show the evidence of cognitive delays and difficulties in academic achievement even after being placed with a family. The prevalence of special education labels among children adopted from Eastern Europe is discussed next.

### **Prevalence of Eastern European Adoptees among Special Education Services**

Parents and teachers of 46 school-age children (ages 6 to 9) who were adopted from Eastern Europe prior to age 30 months reported that 27% of that sample were receiving speech-language services, 16% were receiving reading services, and 47% had current or past diagnoses of speech/language delay disorder (Glennen & Bright, 2005); these levels are

substantially higher than population norms. These high numbers could be explained by internationally adopted children's difficulties in acquiring a "second first language." Others may explain it by the tendency of adoptive parents and professionals to have a lower threshold for detecting difficulties in international adoptees, with the aim to prevent or alleviate any further developmental problems (van IJzendoorn & Juffer, 2006).

A more recent study involving children adopted from the former Soviet Union evidenced some striking evidence of special needs (Beverly, McGuinness, & Blanton, 2008). Out of 55 children ages 9 and 13, 45 (82%) had at least one special education label. Among the most frequent labels were communication disorder (62%), followed by learning disability (45%) and attention deficit hyperactivity disorder (ADHD; 42%). Boys displayed higher levels of disorders than girls (1.5:1 ratio). Additionally, girls adopted after 36 months of age were 4 times more likely than girls adopted earlier to have a diagnosis of ADHD, and children with low birth weight displayed learning disabilities twice as often as children with normal birth weight. There are a number of limitations to this study however. One of the limitations as discussed by the authors was sampling bias, and another was reliance on a survey procedure. The prevalence numbers listed above were for the second wave of the study – the 4-year follow-up, during which some attrition was evidenced. It is possible that parents whose adopted children experienced more problems were more likely to remain in the study as a way of expressing their concern, and thus their responses could be inflated. Yet, on the other hand, their findings seem to be consistent with the results of other studies involving internationally adopted children, such as the study conducted by the International Adoption Project (IAP) team at the University of Minnesota.

## **International Adoption Project**

The International Adoption Project (IAP) is the first surveillance study involving internationally adopted children in the U.S. For this project, researchers obtained records of families who adopted internationally between 1990 and 1998 through the Minnesota Department of Human Services (DHS). The authors were interested in children between the ages of 4 and 18 years at the time of the survey. There were 3,270 children identified. Current addresses were obtained for 90.8% of these families, and complete surveys were returned for 1,948 children (65.6% return rate). A majority of the adopted children were from South Korea (32%), followed by Colombia (11%), China (10%), Russia (7.6%), India (7%), Guatemala (6%), and Romania (5.2%). The large survey (556 items) was designed by a multidisciplinary team of researchers and adoptive families, and included family's demographic information, child's preadoption history, post-adoption mental and physical health, educational experiences, social experiences, and children's externalizing and internalizing problems (Gunnar et al., 2007).

The parents were generally of higher socio-economic status (SES) and well educated. With regard to household annual income, most of the families reported incomes in the range of \$50,000 to \$100,000. About 15% of the families had incomes less than \$50,000 a year and about 27% families reported incomes over \$125,000. Over 99% had health insurance for their children. Over 70% had college degrees, and over 30% had Master's, Doctorate's and other professional degrees (Gunnar, Johnson, Grotevant, & Lee, 2002). These results are comparable to data on adopted children from the 2003 National Survey of Children's Health, which surveyed parents of 102,353 children in the United States (Bramlett, Radcl, & Blumberg, 2007). In that sample, 3% were domestically and internationally adopted children.

Their findings indicated that adopted children are more likely to live in higher-income households where someone has attended college. As a result, adopted children are less likely to lack consistent health insurance coverage than non-adopted children.

Part of the IAP survey addressed academic difficulties among internationally adopted children. Based on the parents' responses, 42% of those adopted after 24 months were falling behind in some or all classes compared to only 11% of those adopted under 6 months of age. Overall, 17% of school-aged adopted children were falling behind in some or all of their subjects (Gunnar et al., 2002).

When analyzing internationally adopted children's emotional and behavioral problems, IAP researchers compared children adopted from Eastern Europe to children from other parts of the world. They hypothesized that children from Eastern bloc countries would be more likely to experience difficulties due to being raised in institutions prior to adoption and the high prevalence of alcohol exposure in utero among children in Eastern European countries (Davoli, 2008). Their hypothesis was confirmed. Children adopted from Russia and other Eastern European countries were indeed at a greater risk of developing behavior problems as measured on the CBCL, including anxious/depressed problems, aggressive behavior, broadband externalizing problems, attention, thought, and social problems.

The internationally adopted boys were 1.6 times more likely than girls to score in the clinical range on the anxious/depressed scale and 1.8 times more likely to display thought problems. There were no other differences between adopted boys and girls. Children adopted at 24 months or more displayed higher rates of internalizing problems (especially for the withdrawn subscale), externalizing problems (e.g., aggressive and delinquent behaviors), and attention, thought and social problems than children adopted before 24 months of age

(Gunnar et al., 2007). In summary, based on the findings of the IAP surveillance study, children adopted from Eastern Europe and those who were older than 2 years at the time of adoption experience more mental health and developmental problems than children adopted from the other parts of the world and at a younger age.

Time with the new adoptive family was important for this sample of adopted children. Time was positively associated with internalizing problems. As each year with the adoptive families passed, children were 1.1 to 1.2 times as likely to be scored in the clinical range on internalizing problems. Time in the adoptive home was not related to externalizing problems; however, time in the adoptive home was positively associated with attention, thought, and social problems. Researchers concluded that these results showed some evidence that behavior problems do not dissipate with time after adoption but actually get worse (Gunnar et al., 2007).

Although the IAP is currently the largest study of international adoptees in the U.S., it included adoptive families living in Minnesota only, and it relied solely on parental report. Additionally, the IAP is a cross-sectional study, and it is possible that a longitudinal study could yield somewhat different results. In order to be able to generate a more accurate picture of international adoptees' adjustment in the U.S., future studies need to follow adoptive families from different states and regions and preferably include multiple respondents (adoptive parents, adopted children, teachers, etc.).

### **The Effects of Institutional Care on Children's Development**

There have been a number of studies conducted with children in institutional settings in the United States and in other parts of the world (i.e., Brossard & Decarie, 1971; Casler, 1965; Gavrin & Sacks, 1963; Hakimi-Manesh, Mojdehi, & Tashakkori, 1984; Hunt,

Mohandessi, Ghodssi, & Akiyama, 1976; Nelson, Zeanah, Fox, Marshall, Smyke, & Guthrie, 2007; Rheingold, 1956; Saltz, 1973, Sayegh & Dennis 1965; Skeels, 1937; Sparling, Dragomir, Ramey, & Florescu, 2005; Taneja, Sriram, Beri, Sreenivas, Aggarwal, Kaur, 2002). In a comparison study, researchers examined language acquisition in children raised in a Romanian orphanage and compared them with children in home foster care and biological families in Romania (Windsor, Glaze, & Koga, 2007). Even though this study did not focus on assessing language abilities in internationally adopted children, the findings can still provide us with useful information about type of input that children might receive when raised in an institution. All children in the institutionalized sample were institutionalized at birth. A sample of children was randomly selected from the group of children that remained in the orphanage and another sample was selected from the group that was placed in foster care. The sample was small (10 children in each group), but researchers obtained extensive measures of language abilities. Language was assessed during play and through parent/caregiver report. Children were assessed at the age of 30 months. It is assumed that children raised in an institution receive less language input than children raised in families. Thus, researchers hypothesized that children raised in an orphanage would display pervasive delays in language development, but that children who were placed in foster care would do better on the same language measures. The results showed that both institutionalized and foster care children who were previously institutionalized displayed substantial language delays, with some of these children demonstrating an inability to pronounce words. However, children who spent at least 12 months in foster care were closer in the development of receptive and expressive language to children who had never been institutionalized, while still evidencing lower grammatical abilities. Interestingly, within the group of children who

remained in the orphanage, the presence of a preferred caregiver was associated with better language development. Overall, this study also showed that positive change in the environment can help children catch up developmentally with their peers. Additionally, it confirmed that children in Romania follow the same developmental trajectories as children in other parts of the world.

**Interventions to improve functioning of children in institutions.** An intervention to improve the quality of institutional care was conducted by the St. Petersburg-USA Orphanage Research Team (2008). This research involved children birth to 4 years from three different orphanages in St. Petersburg, Russia. Researchers designed two interventions. One involved training the orphanage staff, educating them on child development and mental health and teaching them about the importance of warm, sensitive, and caring interactions with children. Another intervention involved structural changes by reducing children group sizes from 12 to 6, and by assigning two primary caregivers to each subgroup. Researchers non-randomly assigned orphanages to either both training and structural changes, to training only, or to no intervention. The combined intervention was the most effective. Children in the combined intervention group outperformed the no-intervention children with a difference of more than one standard deviation on a developmental scale. The training-only intervention was more effective than no intervention at all. For example, the combined group improved their total Developmental Quotient (DQ) from 57 to 92 (45 DQ points); the training-only group from 45 to 72 (27 DQ points); and the no-intervention group from 65 to 74 (9 DQ points). The combined intervention group also evidenced improvements in physical growth, socio-emotional development, and attachment (The St. Petersburg-USA Orphanage Research Team, 2008).



Another intervention study titled the Bucharest Early Intervention Project (BEIP) randomly assigned children living in Romanian orphanages either to remain in the institution or to be placed in the foster care (Nelson et al., 2007). At the baseline assessment (before children were assigned to groups), only 19% of children in the institutions displayed secure attachments as measured by the Strange Situation Procedure. This is in comparison to 74% of children who have never been institutionalized (in their sample of children living with the Romanian birthparent), and who had secure attachment. Children who were placed in foster care and re-assessed again at 42 months displayed higher levels of secure attachment (49%) than those who remained in institutions. Researchers also measured psychiatric disorders in their preschool samples. More than half of the children (53%) who have been institutionalized had some kind of psychiatric disorder compared to 22% of their matched never-institutionalized sample. For example, children in the institutions and in foster care displayed higher levels of internalizing and externalizing disorders, including ADHD and ODD than children who lived with their birthparents. When comparisons were made between children who remained in the institutions and children placed in foster care, foster care children had less internalizing problems, but no differences among externalizing disorders were found (Bos, Zeanah, Fox, Drury, McLaughlin, & Nelson, 2011).

The above-stated studies show the evidence of how change in environment can bring changes in a child's development. It also appears that having a relatively constant attachment figure can aid in language and other cognitive development. Thus, environment plays a big role in how well a child develops. It is possible that the family environment for children who are subsequently adopted can play a role in how quickly and to what extent they will catch up and adjust. This point will be discussed next.

## **The Importance of Family Environment on the Development of Adopted Children**

Family functioning is viewed in several ways. One way to look at it is through the circumplex model developed by Gorall and Olson (1995). Its historic roots, basic concepts, and dimensions, are grounded in systems theory (Olson & Gorall, 2003). The circumplex model posits three basic concepts of family functioning: cohesion, flexibility/adaptability, and communication. Cohesion is described as “the degree of emotional bonding or closeness within a family” (Gorall & Olson, 1995, p. 218) and is comprised of four levels: disengaged, separated, connected and enmeshed. The second dimension, flexibility (adaptability), is the amount of change in family leadership, role relationships, and relationship rules (Olson, 1993). The four levels (from low to high) are rigid, structured, flexible, and chaotic. Communication, as defined by Olson, is “the family skill level in listening and speaking with one another” and is viewed more as the facilitating dimension in the circumplex model (p. 218). Thus, positive communication skills allow families to move from one family level of cohesion and/or flexibility to another on the model. It is assumed that cohesion and flexibility are curvilinear with respect to family functioning. Essentially, moderate levels of cohesion and flexibility are most related to adequate family functioning, and very high or very low levels of either cohesion or flexibility are characteristic of problematic family functioning (Gorall & Olson, 1995). A balanced system describes a family in the moderate range of both the cohesion and flexibility dimensions.

Based on the model, Olson developed an instrument measuring family functioning - Family Adaptation and Cohesion Evaluation Scales (FACES), which has been used in multiple studies with adopted children. Using this measure research conducted by the Families for Russian and Ukrainian Adoption (FRUA) revealed that most families who

adopted children from Eastern European countries were functioning fairly well (Price, 2002). In this sample, there was a wide variability of how long the children were living in an adoptive home (between 1 month and 10.5 years at the time of the study). Family flexibility and cohesion were measured via the FACES II (Olson, Portner, & Bell, 1978) with results revealing that in terms of cohesion on average, families fell into the connected category. In terms of adaptability, families ranged from very rigid to very flexible with a majority of them falling into the flexible category. Most families were rated either moderately balanced (45.1%) or balanced (43.8%). In this study, however, researchers did not relate family functioning to child's adjustment.

Another study, conducted by McGuiness and Pallansch (2000), used a similar instrument to assess family functioning in adoptive families. Their sample included families of children adopted from the former Soviet Union, including the present independent republics of Russia, Ukraine, Latvia, Belarus, Lithuania, Georgia, and the Central Asian Republics. To assess family functioning, the researchers used the Family Environment Scale (FES; Moos & Moos, 1994). Adoptive family environments were generally well functioning, with higher than average levels of Cohesion and Expressiveness (the extent to which family members are encouraged to express their feelings directly). Additionally, the researchers related family environment to the adopted children's competence as measured by the Vineland Adaptive Behavior Scales. These scales assess competence in multiple areas such as communication, daily living skills, socialization, and motor skills. Higher scores on the cohesion and expressiveness family subscales were related to better competence in the adopted children.

A follow-up to the aforementioned study evaluated the relation between adoptive family environment and adopted children's competence skills, which were measured by the CBCL (Robinson, 2008). At Time 3, when children were between ages 13 and 17 years old, the positive family environment continued to mediate the risk factors such as birth weight, length of time in the orphanage, birth mother's exposure to alcohol, etc., and positively impact the competence of adopted adolescents. Specifically, cohesion was found significant with regards to total competence and social skills, and conduct problems were related to cohesion and family conflict.

Overall, as can be observed from the above described studies, adoptive families tend to be more adaptive and cohesive as compared to normative families. Research from non-adoptive families has shown that children from well functioning families are less likely to develop emotional and behavioral problems. This was demonstrated with adoptive families as well (Leung & Erich, 2002). Higher levels of family functioning were associated with lower levels of children's total behavior problem scores as measured by the Eyeberg Child Behavior Inventory (ECBI). In this study, researchers collected data on 117 adopted children in a southern state (mean age 6.7 years). The instrument used to assess family functioning was a modified subscale from the Self-Report Family Functioning scale (SFI) known as family health.

Groze (1996) used the FACES III (Olson, Portner, & Lavee, 1985) to assess family functioning in 71 adoptive families who participated in a four-year longitudinal study. Results revealed that over the 4-year period, there was a decrease in mean adaptability scores. Even with the decrease, mean scores for the four years were higher than the norms provided by Olson. There was also a decrease over time in mean cohesion scores. However,

by the fourth year, when most children were adolescents, the mean cohesion score was the same as Olson's norms for all families and higher than the mean for Olson's norms for families with adolescents. These results suggest that, even though there was a decrease in adaptability and cohesion over time, families with adopted children remained more adaptive and cohesive than normative families. Most adoptive parents in the U.S. are higher educated and have more resources available to them than normative families, and these advantages mean they have fewer economic strains. As adoptive parents, they were also quite intentional in forming their families and thus may show greater motivation to work hard on family functioning.

Another way to look at family functioning is through a goodness-of-fit or interactional model (Lerner, 1993). According to this model, child's adjustment would depend on the "fit" between parent and child characteristics. For example, if parents and children have similar personalities, the child's adjustment tends to be more positive. If compatibility between parents and children is low, it may result in a conflictual relationship. This model was tested on a sample of domestically adopted children (Grotevant, Wrobel, van Dulmen, & McRoy, 2001). In that sample, higher compatibility between adoptive parents and their adopted children was associated with adolescents' better psychosocial engagement and lower levels of problem behaviors. Psychosocial engagement in this study was indexed by adolescents' perceptions of attachment to their parents (as measured by the Inventory of Parent and Peer Attachment – IPPA) and parents' report of their adolescents' social competence skills (as measured by the CBCL).

A goodness-of-fit model has been also tested in comparing family interactions among adoptive and non-adoptive families (Rueter, Keyes, Iacono, and McGue, 2009). These

researchers recruited 284 adoptive and 208 non-adoptive families. Among adoptive families, about half of the sample (123 families) had one adopted and one non-adopted adolescent. The average age of children in families was 14.9 years. Parents and adolescents both responded to the Parental Environment Questionnaire (PEQ; Elkins, McGue, & Iacono, 1997) to assess self-reported family interactions, yielding three subscales: involvement (warm, supportive communication), structure (parental control), and parent-child conflict. Additionally, researchers observed family interactions, communication, control and conflict using the Iowa Family Interaction Rating Scales. Their results showed that parents and children reported more conflict in adoptive families than in non-adoptive homes. Additionally, families with one adopted and one non-adopted adolescent reported more conflict between parents and the adopted adolescent as compared with the non-adopted child. With regard to observation of family interactions, parental behavior was similar across adopted and non-adopted children, yet adopted adolescents were rated as less warm, and in families with two adopted children, as more conflictual than non-adopted adolescents. Overall, the researchers pointed out that adoptive and non-adoptive families were more similar than dissimilar in their interactions. Adoptive parents were just as warm and supportive and displayed similar levels of control as non-adoptive parents. The only differences were noted in the levels of parent-child conflicts. Parents displayed the same behavior toward adopted and non-adopted adolescents, whereas adopted children appeared to be more conflictual and less warm to parents than non-adopted children. Thus, researchers concluded that there is a need to further explore the association between family interactions and adopted children's problem behaviors.

The results of the aforementioned study are not consistent with previous studies, which evidenced a better functioning in adoptive families. The differences could be related to the fact that previous studies used only self-report measures and only parents were asked to complete the questionnaires. Rueter et al.'s study (2009) was more complex in nature and stronger methodologically and probably measured family functioning more accurately. Within the goodness-of-fit model, researchers examine the perspective of both parents and children. Even though Rueter and her colleagues discovered more conflict in families with adopted children, they also observed that adoptive parents were as warm and as responsive as parents with children born to them. They indeed did not find many differences between adoptive and non-adoptive parents, as most of the differences noted came from adopted children's responses.

Some researchers hypothesize that family processes, including communication about adoption, may change the course of problem behaviors in internationally adopted children, despite all the adversities they experience earlier in life (Juffer & Tieman, 2009). However, currently there are only a few studies that examined adopted children's interest in adoption and their feelings associated with being adopted (i.e., Brodzinsky & Brodzinsky, 1992; Juffer, 2006). Additionally, most adoption research has been focusing more on outcomes than processes, and more is known about recovery and developmental catch-up among internationally adopted children than about the context in which it happens (Palacios, Román, Moreno, & León, 2009). The proposed study intends to address this research gap.

Family functioning as well as adopted children's adjustment was also examined in the Kuznetsova and Byrd (2005, unpublished) study, which serves as a foundation for this study. Its initial results will be discussed next.

### **Kuznetsova and Byrd (2005) Study – Preliminary Findings**

Kuznetsova's master's thesis served as a foundation for the current study. This study is a follow-up of the families from Kuznetsova and Byrd (2005), with recruitment of additional adoptive families to expand the sample. The intent of the original study was to examine factors associated with behavioral and emotional problems in internationally adopted children who were 4 to 11 years old at the time. U.S. families who had adopted children from Eastern Europe were recruited. The surveys were mailed to their homes for one of the adoptive parents to complete. The study sought to understand how children's current age and the age at which they were adopted were related to the children's current internalizing and externalizing behaviors as measured by the CBCL (Achenbach, 1991). Parents of children who were older reported that their children showed more sadness, anxiety, and depression, or internalizing behavior, than did the younger children. However, internalizing behavior was unrelated to the age at time of adoption.

At Time 1 (the Thesis), most children were doing well. Only 3 children out of 80 (3.7%) fell within the clinical range on the internalizing scale of the CBCL, and 12 participants (15%) fell within the clinical range on the externalizing scale; these rates are lower than is observed in the normative population. Current age and age at adoption suggested that problems might be developing, however. Time 1 data revealed that the current age of the adopted child was positively related to internalizing behavior, delinquent behavior, aggressive behavior, attention problems, and social problems, that is, that older children were showing more problems. Additionally, age at the time of adoption was positively related to delinquent behavior and social problems, supporting the findings of other researchers that children adopted at older ages show more problems.



Family functioning was measured by FACES III at Time 1. In this sample, 45% of the families fell into the balanced family category, 39% were within the midrange level of functioning, and 16% fell into the unbalanced category. This is not statistically different than the norms. Overall, the adoptive families were more cohesive than the normative families. They did not differ from non-adoptive families in the number that was balanced or unbalanced.

Kuznetsova and Byrd study also attempted to examine the relation between family functioning and the adopted child's level of emotional and behavioral difficulties. The investigators expected that families who were in the optimal group, the balanced category, would have children who had fewer internalizing and externalizing behaviors. This was not supported. There were no significant differences in scores for children from balanced families, midrange families, or unbalanced families, for either internalizing or externalizing symptoms. It is unclear why this non-relationship occurred. Perhaps family functioning is simply unrelated to the problems their children have. Or perhaps the measures used failed to capture what was happening due to restriction of range. These were self-reported well-functioning families for the most part (only 16% of the families were rated as unbalanced) with reportedly well-behaved children (only three were in a clinical range for internalizing problems and 12 for externalizing problems), and so the expected relationships could not be detected in this sample.

One of the limitations of the Kuznetsova and Byrd (2005) sample is that very few children were adopted at what researchers now consider an early age. Specifically, only one child was adopted and brought into his new family before 6 months of age. Other children

were adopted when 6 to 12 months (17.5%), 13 to 24 months (33.8%), 25 to 36 months (22.5%), 37 to 48 month (13.8%), and 4 to 6 years (12.6%).

The use of a convenience sample served as another limitation in Kuznetsova's thesis study. A majority of the families knew the researcher before the study, as she had served as interpreter and staff member from the orphanage in Russia where their children were adopted. It is possible that these families did not want to upset the researcher, and thus underreported their children's difficulties. The sample indeed evidenced lower levels of internalizing and externalizing problems than the normative population. Although, the response rate was high (82%), it may be that families who experience the greatest level of difficulty with their adopted children preferred not to complete the questionnaires as not to feel embarrassed, or, that they might be so involved in handling their child's problems that they simply did not have time to complete the questionnaires.

### **Summary and Statement of the Problem**

In summary, recent studies of children who were adopted from institutions abroad show that most of the children display developmental delays at the time of adoption but there is evidence of massive catch-up/recovery the longer children live with their adoptive families. Despite early adversities, these children are able to catch up with their peers by middle childhood or earlier depending on the age of their adoption, although this catch-up may not be complete for some of them. Overall, internationally adopted children seem to be developing fairly well and only a small portion of them display significant cognitive and other impairments. It is also apparent that children adopted earlier in life (in infancy) tend to experience fewer deficits as compared to children who were adopted later. Some studies have shown that the dose-response association (duration in institution to outcome) disappears after

6 or 12 months of age at the time of adoption (Beckett et al., 2007; van IJzendoorn & Juffer, 2006).

Among the most frequently discussed issues is that of adopted children facing attachment and identity issues. There are a number of studies comparing attachment in adopted and non-adopted children as well as contrasting children who were placed with families before versus after 6-12 months of age. Attachment problems seem to be especially evident among children adopted from Eastern Europe (van den Dries et al., 2009), and these problems are themselves related to an increased risk for other psychological issues.

Identity issues among adopted individuals have not been investigated as thoroughly (Grotevant et al., 2007; Javier et al., 2007) as attachment. Researchers do note differences in adopted children's adjustment depending on how preoccupied they are with their adoptive status and how they were told about their adoption (Juffer & Tieman, 2009).

Family environment in adoptive families and its impact on children's adjustment have been studied to a lesser extent as well. In general, adoptive families tend to be well educated and have high incomes; most often, they are well functioning and resilient. However, research is lacking on family processes and how this may affect adjustment in adopted children (Palacios et al., 2009).

A criticism of adoption research is that often adoption studies are descriptive in nature and lack comparison groups. Studies also usually consist of parent-report only. There is a need for longitudinal and multilevel (i.e., child and family) studies with comparable assessments (O'Brien & Zamostny, 2003). The current study attempts to fill this gap and uses triangulation by obtaining both parent- and child-report data.

Raising a child adopted from an orphanage in another country can be a different and more challenging experience than raising a non-adopted child, especially if that child joined the family at a later age. As described previously, due to socio-emotional deprivation post-institutionalized children can present with a number of problems, such as developmental delays and attachment issues. These issues can manifest as different psychosocial and cognitive problems later on in life. Yet, many children adjust well despite early life adversities, and the family environment in which these children were placed plays a crucial role in their developmental catch-up and adjustment. However, there is a shortage of studies specifically focusing on children adopted from Eastern Europe into the U.S. (Ruggiero & Johnson, 2009), especially the ones investigating adopted children's perceptions about their adoptive status. The current study addressed this issue and related adjustment of children adopted from Eastern Europe to their family environment.

### **Theoretical Framework Guiding the Study**

This study uses a combination of theoretical constructs in building its hypotheses. Attachment theory helps us to understand why adopted children, especially the ones adopted after infancy, are more likely to experience psychosocial problems. Erikson's theory of identity development as well as the introduction of term "adoptive identity" can explain why adopted children are struggling more emotionally during adolescence. Yet, based on the findings from previous research, we know that many of the children adopted from institutions adjust well despite early adversities. One of the explanations for this can be healthy family environment. As with many psychological constructs, adjustment of children adopted internationally is multifactorial in nature, and several factors have to be considered in order to predict their adjustment.

## **Hypotheses**

1. It is expected that at Time 2 (the current study), the internationally adopted children's problems will be higher than at Time 1. At Time 1 (5 years earlier), children in the longitudinal sample were in their early and middle childhood. At Time 2, these children are approaching or in adolescence.
2. It is expected that children adopted as infants will display lower levels of emotional and behavioral problems and higher competence scores than children adopted at later ages.
3. It is expected that family environment (based on parental report) will be more unbalanced, less cohesive, and less adaptive at Time 2 than at Time 1.
4. It is expected that children with a history of preadoption abuse and/or neglect will evidence higher levels of problem behavior and lower levels of competence than children without such history.
5. It is expected that children from families with healthy functioning (balanced, more involved and with less conflict) will display lower levels of problems than children from families with less optimal family functioning.
6. It is expected that children who self-report lower on attachment will have higher problem behaviors.
7. It is expected that adopted girls will be more preoccupied about their adoption than adopted boys.
8. It is expected that adopted children who are more preoccupied with their adoptive status will be more likely to display emotional and/or behavioral problems.

## Methods

### Participants

One hundred and forty-five families reporting on 194 adopted children (104 girls) participated in this study at Time 2 ( $M_{age} = 14$  years,  $SD = 2.5$  years, ranging from 9.1 to 19.6 years). This included 45 children from the previous study (56.25% retention). Sixteen children were removed from the sample (so, a potential sample of 210 was reduced to 194). Those who were removed were either non-adopted children or non-adolescents (20 years and older). The non-adopted sibling subgroup was too small ( $n = 14$ ) to use as a comparison group, so they were not included in analyses. Most of the surveys were completed by mothers ( $n = 133$ , 92%). The majority of the sample ( $n = 189$ , 97.4%) are children adopted from Eastern Europe. Five children were adopted domestically (from the United States). More than half of the sample (155 children, 80%) was adopted from Russia; 21 children were from Ukraine. Other countries were Romania, Azerbaijan, Uzbekistan, Kazakhstan, Bulgaria, Latvia and Moldova. Internationally adopted children's age at the time of adoption ranged between 4 months to 16 years ( $M = 4.3$  years,  $SD = 4$  years).

One hundred parents (69%) gave permission for their children to complete the survey. Children who were given permission to take part were no different in age from those who were not given permission ( $p = .085$ ). Seventy-two (34%) children/adolescents (37 girls) completed the survey; three of them were non-adopted siblings, and they were excluded from the analyses. Twenty-four of the children were children whose parents participated at Time 1 survey.

Additional new families were recruited through the national organization *Families for Russian and Ukrainian Adoption (FRUA)* Facebook page, where an announcement with the

link to the questionnaires was posted. The Russian, Eastern European, and Central Asian (REECA) Heritage Camp also sent an email with an announcement about the study to the families on their listserv. It is not possible to ascertain to which organizational announcement families responded.

Children participating in this study came predominantly from two-parent families (76%), followed by single-parent homes ( $n = 24$ ), divorced ( $n = 9$ ), and widowed ( $n = 2$ ). The majority of the reporting parents (83.5%) have either undergraduate or graduate degree, and so do their spouses (62.1% are reported to have either Bachelor's or graduate degree). The mean age of the adoptive parents was 49.2 years with a range from 30 to 72, and their spouses – 50.8 years with a range from 32 to 67 years.

Parents reported that more than one third of the children (36.2%) had a disability. Among the most frequently listed disabilities were ADHD (10.5%), learning disabilities (6.7%), and Fetal Alcohol Syndrome (6.2%). Most parents listed more than one disability. The percentages here reflect only the first disability listed by the parent. Some of the other disabilities that parents reported were Cerebral Palsy ( $n = 3$ ), Dyslexia ( $n = 3$ ), RAD ( $n = 3$ ), Developmental disability ( $n = 3$ ), and physical disabilities ( $n = 3$ ).

Almost all of the internationally adopted children (99%) lived in an institution prior to adoption (either at a hospital or at an orphanage). Two children adopted from Romania lived with a foster family prior to their permanent placement with American families. One third of the participants (30.1%) reported no history of abuse or neglect (for their adopted children) prior to adoption, 23.5% did not know if there was such a history, 44.4% reported that their adopted child had a history of neglect, and 25% reported abuse prior to adoption.

## **Procedure**

Approval for the study was granted by the Institutional Review Board of the Virginia Commonwealth University (VCU).

Recruitment of the participants was two-fold. For the follow-up families:

1. Follow-up families were contacted first by email. The message is in Appendix A. In this message, families were provided a link directly to the questionnaire. At Time 1, these families were contacted by letter and completed questionnaires by mail. This time, the families from Time 1 completed the questionnaires online, but they were offered a paper copy of the questionnaire if preferred. No participant requested a paper version.
2. Families were given a way to email the investigator and say, “No, and please do not contact me again.” No families made this request.
3. The investigator checked the completed online questionnaires frequently to see who has responded, comparing child’s birth date, first name, and initials in the Time 1 and Time 2 questionnaires
4. The families that had not completed the questionnaire were contacted by email three more times.
5. If no response was received (or if the email bounced back), families were sent a letter inviting them to participate in the follow-up study. In this letter, families were given a way to go to the questionnaire. The investigator provided a phone number and email address and invited families to contact her for questions and



information. Additionally, these families were offered a place to email or mail a letter asking not to be contacted again.

6. Families that were sent letters were sent up to two additional letters reminding them of the survey. If letters were returned “undeliverable, no forwarding address,” attempts ended.

For new families being recruited for the study:

1. Announcements (see Appendix B) for recruiting new families were posted on FRUA’s Facebook page. A few other adoption agencies/organizations (the Heritage camp, Coordinators 2) sent out announcement to their clients. The announcement contained the direct link to the study.
2. Families could go to the website to learn more about the study.

**Consent and assent processes for both groups.** By completing and submitting the questionnaires, adult participants gave their informed consent (Appendix C) and child participants gave assent (Appendix D). Only one adoptive parent per family completed the questionnaire online. For parents with more than one child age 11 to 18, parents answered questions about each of the children separately. They answered questions about family functioning just once. Parents were asked to check a box saying they give consent for a child to take part in the child-report part of the study. Parents asked their children (for whom they submitted the questionnaires) to go to the child questionnaire link to complete the survey.

As an incentive, children were offered the opportunity to enter their names into a raffle after completing the questionnaire online. Four children, randomly chosen, received an iPod Nano.

## **Instruments**

### **Parent-Report**

**Demographic and Adoption Background Questionnaire.** This questionnaire was specifically designed for the proposed study in order to obtain background and demographic information on the children and their families. Among the questions included were first name and last name initial for each child, child's gender, date of birth of the child, age of the adopted child at the time of adoption (in months), place of adoption, history of abuse and/or neglect prior to adoption (if known), parents' age, education, and parental satisfaction with adoption procedures. Questions pertaining to communication about adoption were adapted from Juffer and Tieman's 2009 study.

**Child Behavior Checklist (CBCL;** Achenbach, 1991). Designed to be completed by parents, this instrument is a standardized questionnaire for quantifying a broad range of child and adolescent problems (ages 4-18). For this study, only the externalizing, internalizing, social and attention problems, as well as portions of the competence scale (school and social) were used. Test-retest reliabilities of the CBCL have been reported in the .90s over a 7-day period. Authors of the measure provide separate norms for boys and girls. Internal consistency ratings for boys (ages 4-11) are noted as .89 for the internalizing scale (.67 in the actual sample at Time 1), .93 for the externalizing scale (.86 at Time 1). Internal consistency for boys ages 12-18 is noted as .90 for the internalizing scale (.89 in the actual sample at Time 2), .93 for the externalizing scale (.94 at Time 2), and .64 for the competence scale (.75 at Time 2). Internal consistency ratings for girls (ages 4-11) are noted as .90 for the internalizing scale (.87 in the actual sample at Time 1), .93 for the externalizing scale (.91 at Time 1). Internal consistency ratings for girls ages 12-18 are noted as .92 for the internalizing

scale (.92 in the actual sample at Time 2), .93 for the externalizing scale (.95 at Time 2), and .64 for the competence scale (.68 at Time 2).

### **Child-Report**

**Youth Self-Report (YSR;** Achenbach, 1991). Designed to be completed by children, this instrument is a standardized questionnaire for quantifying a broad range of child and adolescent problems, ages 11 to 18 with mental age of at least 10 years. It is comparable to the CBCL and contains the same subscales. For this study, only the externalizing, internalizing, social and attention problems, as well as social competence scale was used. Test-retest reliabilities of the YSF have been reported in the .80s over a 7-day period, for the internalizing scale as .80, externalizing scale as .81, and competence scale as .80. Internal consistency for boys ranges from .46 (competence scale) to .95 (problem scale). Internal reliability ratings for girls are noted as .91 for the internalizing scale, .89 for the externalizing scale, and .48 for the competence scale (Achenbach, 1991). In the actual sample at Time 2, internal consistency is noted as .44 for the social competence subscale, .94 for the internalizing scale, and .90 for the externalizing scale. Due to the low reliability of the competence scale, it was not used in the analysis, except for the descriptive statistics.

**Inventory of Parent and Peer Attachment (IPPA;** Armsden & Greenberg, 1987). This is a self-report measure designed to be completed by individuals between ages 10 and 20. It consists of 25 items measuring adolescents' attachment to their parents and peers. Children completed sections regarding their mother and father. This measure contains questions about trust, communication, and alienation. Internal consistency ranges from .86 to .91. Test-retest reliability over a three-week interval is rated at .93 for parent attachment (Armsden & Greenberg, 1987). In the current sample at Time 2, internal consistency for total

attachment score is .93 for mother and .94 for father. This measure has good established validity and correlates with measures of psychological well-being. Additionally, IPPA scores are negatively associated with depression and discriminate between delinquent and non-delinquent adolescents (Fischer & Corcoran, 2007, p. 556).

**Adoption Dynamics Questionnaire** (ADQ; Benson, Sharma, & Roehlkepartain, 1994). This instrument measures adolescents' preoccupation with their adoption (12 items), their positive affect about adoption (11 items), and negative experience with own adoption (7 items). Selected items were excluded. Cronbach's alpha for "preoccupation with adoption" subscale has been reported at .91 (Kohler, Grotevant, McRoy, 2002). Psychometric information on the other subscales is not available. Adopted adolescents' responses to this scale served as a proxy to their adoptive identity exploration. In Time 2 sample, Cronbach's alpha is noted as .85 for "positive affect about adoption," .89 for "preoccupation with adoption," and .70 for "negative experience with adoption."

### **Family measures**

**Family Adaptability and Cohesion Evaluation Scales** (FACES III; Olson, 1985). This parent-report instrument measures current and desired family environment while categorizing families into three separate areas (balanced, midrange, and unbalanced). For the purposes of the proposed study, only current family environment was measured. The instrument assessed two dimensions of family functioning: cohesion and adaptability. Family cohesion consists of feelings of closeness that family members have toward one another. Family adaptability is the ability of a family system to change in response to situational and developmental stress. The scale consists of 20-items for the current family type, with 10 items each measuring cohesion and adaptability factors. The two sections have low inter-

scale correlation ( $r = .03$ ), as desired. Test-retest reliability has been identified as .83 for the cohesion scale and .80 for the adaptability scale. Only parents completed this measure.

Internal consistency ratings are noted as .68 for the entire scale, .75 for the cohesion scale, and .63 for the adaptability scale (.65 at Time 2, .68 at Time 1). In the actual sample at Time 2, Cronbach's alpha is noted as .81 for the cohesion scale and .65 for the adaptability scale.

**Parental Environment Questionnaire** (PEQ; Elkins, McGue, & Iacono, 1997). The PEQ is a self-report questionnaire that obtains parent and child reports of each child's relationship with parents. Respondents were asked to rate statements describing their interactions with family members on a 4-point scale. The child version is suitable for children from 11 years of age and up. This measure consists of five subscales: involvement (warm, supportive communication), structure (parental control), regard for parent, regard for child, and parent-child conflict. Internal consistency reliabilities for parental involvement and parent-child conflict have been reported in the range from .79 to .91 (Burt, McGue, Krueger, Iacono, 2007; McGue, Elkins, Walden, Iacono, 2005; Rueter et al., 2009). Only two subscales were used in this study: involvement ( $\alpha = .80$ ) and conflict ( $\alpha = .90$ ). Adoptive parents were asked to complete this questionnaire for each child separately, and children were asked to complete this measure as it relates to their parent(s) separately.

A summary of the constructs, the instruments, and who was asked to complete each of them is provided in Table 1.

Table1

*Instruments for Parents and Children, and Constructs They Measure*

Construct	Parent-report	Child-report
Outcome: Children's psychosocial problems and competence	CBCL	YSR
Individual-level predictors: Child's current age, age at the time of adoption	Demographic Questionnaire	
Family-level predictors: Family functioning	FACES-III, PEQ	PEQ
Individual-level predictor: Attachment		IPPA
Individual-level predictor: Preoccupation with adoption	Adoption Background Questionnaire	ADQ

**Results****Description of the Adoptive Families Participating in the Study**

Participating families reported high levels of satisfaction with their adoption. Specifically, 75.3% of parents indicated that they were satisfied to a great extent with the adoption initially, 16% were somewhat satisfied, and 7.8% reported very little satisfaction or no satisfaction at all during the first years of adoption. As for the current satisfaction level with the adoption, 83.5% indicated that they were very satisfied, 12.4% were somewhat satisfied, and 4.1% reported very little or no satisfaction at all.

According to parental reports pertaining to communication about adoption, more than one third of the adopted children (39.5%) expressed some interest in their adoption, followed by 37.9% of the children who are interested or very interested in their adoption, and 22.6%

children who almost never expressed interest in it. Almost all of the families (99.5%) have been talking about adoption since their child's placement with them or shortly thereafter. Only one family reported that they "did not talk about adoption yet." When asked about who usually starts talking about adoption in the families, more than half of the participants (52%) reported that both parents and children start discussion equally often, followed by 23.5% of the families, in which parents initiate the adoption talk. In 13.8% of the families, an adopted child usually starts the conversation, and 6.6% of the parents report that usually other people (siblings, friends, peers) start these conversations.

The majority of the children (71.4%) never expressed to their parents that they wished they had not been adopted by them, 16.3% of the adopted children expressed it rarely, 11.2% sometimes expressed this wish, and two children (1%) expressed it very often. Similarly, most adopted children (73.3%) did not express the wish that they had been born in their adoptive family, and 26.7% of the children wished that they had been born in their adopted family.

Most of the participating families (52.8%) did not experience any stressful life events in the last 12 months preceding the completion of the survey. Seventeen families experienced three or more stressful life events. The most endorsed items were "experiencing financial problems" ( $n = 43$ ), followed by being unemployed ( $n = 24$ ), and experiencing major illness ( $n = 23$ ).

On the modified Parental Monitoring Scale (Silverberg & Small, 1991), adoptive parents reported high levels of monitoring ( $M = 18.95$ ,  $SD = 1.82$ ) ranging from seven to 20 (20 is the maximum possible score). Similarly, participating children self-reported high levels of parental monitoring ( $M = 17.83$ ,  $SD = 2.09$ ) ranging from 13 to 20.

The descriptive statistics from the Parental Environment Questionnaire (PEQ) and cross-informant correlations are presented in Table 2. Parent and children reports on the Involvement subscale were not correlated. The Conflict subscale evidenced high level of agreement between parent- and child-reports.

Table 2

*Descriptive statistics and correlations for Parental Environment Questionnaire (PEQ)*

	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5
Parent-report								
1. PEQ Involvement	189	43.0	4.8					
2. PEQ Conflict	189	23.5	7.1	-.54**				
Child-report								
3. PEQ Involvement with Mom	67	42.2	5.4	.17	-.19			
4. PEQ Involvement with Dad	56	41.1	6.2	.03	-.08	.79**		
5. PEQ Conflict with Mom	67	17.5	6.5	-.12	.37*	-.70**	-.47**	
6. PEQ Conflict with Dad	56	21.7	7.5	-.11	.40*	-.56**	-.66**	.83**

Notes: \* $p < .01$ , \*\*  $p < .001$

**Descriptive Statistics from the Child-report Measures**

On the Adoption Dynamics Questionnaire (ADQ), children's "positive affect about adoption" total score ranged between 11 and 27 ( $M = 14.97$ ,  $SD = 4.02$ ). On this subscale, the lower the score the more positive children feel about their adoption; the potential range is between 11 and 33. On the "preoccupation with adoption" subscale, sample's total scores ranged between 13 and 39 ( $M = 26.07$ ,  $SD = 6.43$ ). On this subscale, the lower the score the more preoccupied adopted children are; the potential range is between 12 and 39. On the "negative experience with adoption" subscale, children's total score ranged between 7 and 20 ( $M = 11.58$ ,  $SD = 3.42$ ). On this subscale, the higher the score the more negative experiences children had; the potential range is between 7 and 25.



Adolescents self-reported high levels of attachment to their parents. On the Inventory and Parent and Peer Attachment (IPPA), the total attachment scores for mother ranged from 56 to 125 ( $M = 102.6$ ,  $SD = 16.19$ ). Total attachment scores for fathers ranged from 36 to 125 ( $M = 99$ ,  $SD = 18.20$ ). Boys reported higher levels of attachment to their mothers than girls ( $F(1, 69) = 4.08$ ,  $p = .047$ ). Similarly, boys' attachment to fathers was higher than girls' ( $F(1, 58) = 4.7$ ,  $p = .034$ ).

### **Descriptive Statistics, Correlations, and Relations to Normative Data**

With regard to family environment, on the cohesion scale of the Family Adaptability and Cohesion Evaluation Scales (FACES-III), the mean score of the sample was 40.5, which is higher than the norm ( $t(144) = 8.41$ ,  $p < .001$ ), while the adaptability scale mean score was 26.2, which is also higher than the normative sample ( $t(143) = 5.13$ ,  $p < .001$ ). On this measure, "middle" scores are the ideal, as shown in Table 3. The breakdown of families into different categories is presented in Table 3.

Table 3

*Comparison Table of Normative Data with Sample Data on FACES-III*

	<b>Time 1 (N = 53)</b>	<b>Time 2 (N = 145)</b>	<b>Norms for families with adolescents</b>
Cohesion			
Disengaged	0%	2.8%	18.6%
Separated	26.4%	22.1%	30.3%
Connected	41.5%	44.8% *	36.4%
Enmeshed	32.1%	30.3% **	14.7%
Adaptability			
Rigid	17.0%	9%	15.9%
Structured	32.1%	25.7%	37.3%
Flexible	30.2%	41.7% *	32.9%
Chaotic	20.8%	23.6% *	13.9%
Family type			
Balanced	47.2%	49.3%	48.5%
Midrange	35.8%	36.1%	40.2%
Unbalanced	17.0%	14.6%	11.3%

*Notes:* Significant differences from the norm: \*  $p < .05$ , \*\*  $p < .001$

When comparing Time 1 families who participated at Time 2 ( $n = 45$ ) versus the families who did not participate at Time 2 (dropouts), independent-samples T test revealed that these two groups significantly differ in family cohesion at Time 1. The dropout families were less cohesive ( $F(1, 78) = 6.98, p = .01$ ) as measured by FACES-III. No other differences (including differences in children's levels of psychological problems) between the two groups were found.

As it relates to internalizing and externalizing symptomatology of the participating children, the specific scores for each subscale are presented in Table 4 (girls) and in Table 5 (boys). Additionally, the findings for major subscales are presented in Figure 1 (girls) and Figure 2 (boys). Pairwise comparisons (Bonferroni-corrected) were conducted to determine if the study sample differed from the normative nonreferred sample (Achenbach, 1991). At Time 1, the sample's raw scores on the Child Behavior Checklist (CBCL) Internalizing scale (for both, boys and girls) were lower than the norm. Attention problems were reported higher and School competence was lower than for the normative nonreferred girls. Boys were rated lower than the norms on both School and Social competence at Time 1. The raw scores on most of the problem subscales for Time 2 sample were significantly higher than for the same age group (12-18 years) of nonreferred normative sample. Similarly, their competence scores (social and school) are lower than the norm at Time 2. On the Youth Self-Report (YSR), girls were no different from the norm. As for the boys, they self-reported lower than the norm scores on the Withdrawn and Somatic complaints subscales. Other subscales did not differ from the normative nonreferred sample.

Table 4

*Descriptive Statistics for Dependent Measures (Girls)*

Measure	Time 1 ( <i>n</i> = 35)		Time 2 ( <i>n</i> = 105)		Nonreferred norms, 12-18	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Parent-report (CBCL)						
Internalizing raw score	3.69*	4.70	11.23*	10.73	7.5	6.6
Externalizing raw score	7.77	7.22	12.13**	12.06	7.4	6.7
Social Problems raw score	1.97	2.12	4.15**	3.57	1.8	2.1
Attention Problems raw score	3.91*	3.09	6.17**	5.21	2.6	2.8
Withdrawn raw score	1.49	1.92	3.30	3.40	2.6	2.4
Somatic Complaints raw score	0.46*	1.04	2.30	3.57	1.4	2.0
Anxious/depressed raw score	1.80*	3.02	6.02**	5.95	3.08	3.8
Delinquent Behavior raw score	1.31	1.79	3.08**	4.14	1.4	1.9
Aggressive Behavior raw score	6.46	5.81	9.06**	8.56	6.0	5.4
Social competence raw score	6.33	1.90	6.09**	2.32	7.4	2.1
School competence raw score	4.09**	1.23	3.37**	1.45	5.2	.9
Child-report (YSR), <i>n</i> = 37						
Internalizing raw score			13.31	11.20	13.1	8.6
Externalizing raw score			10.14	8.11	10.5	6.4
Social problems raw score			2.84	2.85	2.7	2.2
Attention Problems raw score			5.65	3.82	4.7	3.1
Withdrawn raw score			3.00	2.35	4.0	2.4
Somatic Complaints raw score			3.63	3.87	3.0	2.9
Anxious/depressed raw score			7.00	6.45	6.5	5.1
Delinquent Behavior raw score			2.46	2.83	2.5	2.2
Aggressive Behavior raw score			7.68	5.93	8.1	5.0
Social competence raw score			6.91	2.35	7.3	2.1

Notes: CBCL = Child Behavior Checklist; YSR = Youth Self Report (not collected at Time 1); Significant differences from the norm are marked (after the Bonferonni correction): \**p* < .05, \*\* *p* < .01

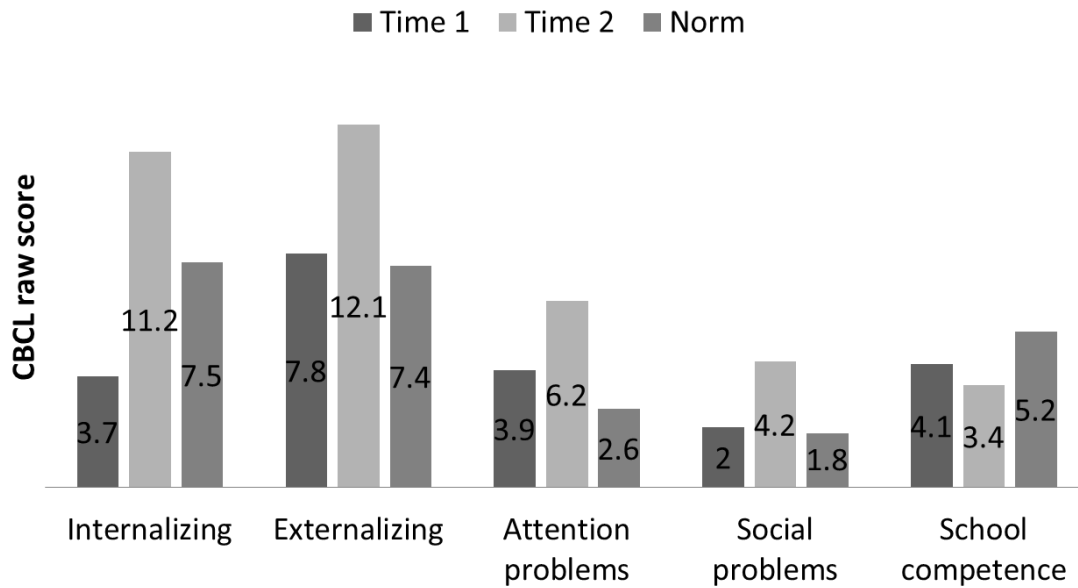


Figure 1. Mean CBCL problem behavior and competence scores for adopted girls at Time 1, Time 2, and normative sample.

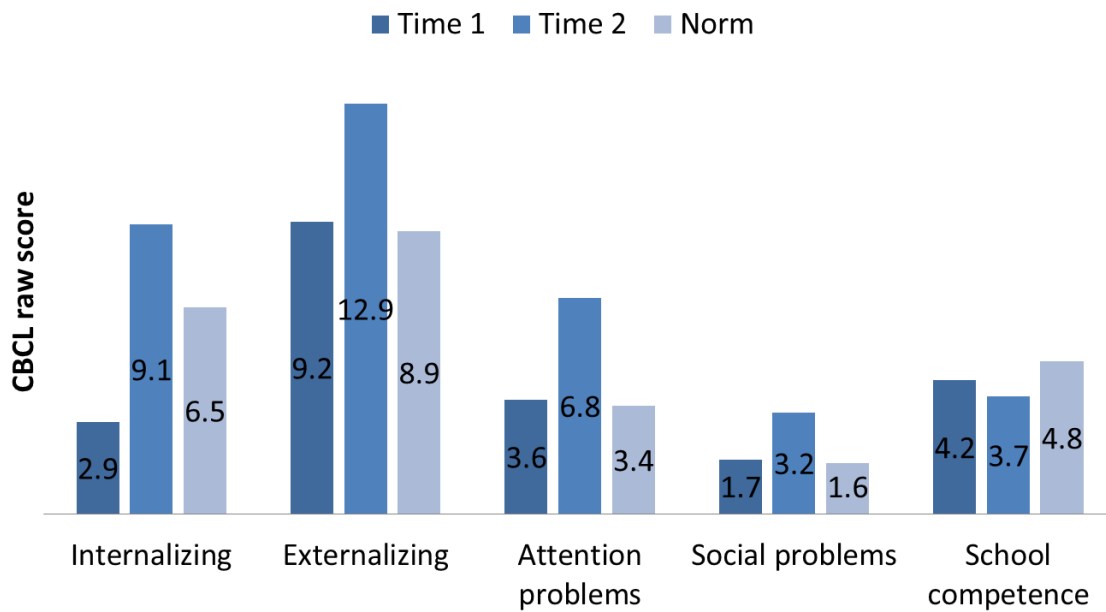


Figure 2. Mean CBCL problem behavior and competence scores for adopted boys at Time 1, Time 2, and normative sample.

Table 5

*Descriptive Statistics for Dependent Measures (Boys)*

Measure	Time 1 ( <i>n</i> = 45)		Time 2 ( <i>n</i> = 89)		Nonreferred norms, 12-18	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Parent-report (CBCL)						
Internalizing raw score	2.91**	2.85	9.08*	8.44	6.5	5.3
Externalizing raw score	9.18	6.71	12.88*	10.96	8.9	7.5
Social Problems raw score	1.73	1.62	3.15**	2.85	1.6	1.9
Attention Problems raw score	3.56	2.89	6.75**	5.20	3.4	3.1
Withdrawn raw score	1.27*	1.45	2.74	2.93	2.4	2.2
Somatic Complaints raw score	.38**	.81	1.46	2.16	1.0	1.4
Anxious/depressed raw score	1.29**	1.52	5.21**	5.22	3.2	3.3
Delinquent Behavior raw score	1.87	2.03	3.02*	3.88	1.9	2.4
Aggressive Behavior raw score	7.31	5.16	9.86*	7.97	7.0	5.7
Social competence raw score	5.32**	2.09	6.34**	2.53	7.6	2.0
School competence raw score	4.23*	1.42	3.73**	1.52	4.8	1.1
Child-report (YSR), <i>n</i> = 35						
Internalizing raw score			7.51	7.33	10.5	7.1
Externalizing raw score			9.49	6.86	11.5	7.1
Social problems raw score			2.42	2.04	2.7	2.1
Attention Problems raw score			3.97	3.01	4.7	3.0
Withdrawn raw score			2.06**	2.03	3.4	2.3
Somatic Complaints raw score			1.26*	1.90	2.2	2.3
Anxious/depressed raw score			4.37	4.49	5.2	4.3
Delinquent Behavior raw score			2.11	2.53	3.1	2.5
Aggressive Behavior raw score			7.38	5.23	8.4	5.3
Social competence raw score			7.52	2.04	7.2	1.8

Notes: CBCL = Child Behavior Checklist; YSR = Youth Self Report (not collected at Time 1); Significant differences from the norm are marked (after the Bonferonni correction): \**p* < .05, \*\* *p* < .01

At Time 2, 36 children (18.6%) were rated by their parents in the clinical range for internalizing problems, and 43 (22.4%) children fell within the clinical range on the externalizing subscale. These percentages are higher than a representative sample of U.S. children, especially with regard to the externalizing problems (Achenbach, 1991). In the internalizing clinical subsample, 52.8% were reported by their parents to have a disability. With regard to the externalizing clinical subsample, 44.2% had a disability. Among most frequently listed were ADHD, Learning disability, Intellectual disability, Fetal Alcohol Syndrome, and Reactive Attachment Disorder.

Using child-report, five participants (6.9% of the responding children) fell within the clinical range on the internalizing scale, and one participant (1.4%) endorsed externalizing symptoms in the clinical range. Based on parent-report, children who completed the survey had lower levels of internalizing and externalizing symptoms (that is, fewer symptoms) than children who did not participate in the study ( $F(1, 206) = 5.11, p = .025$  for Internalizing, and  $F(1, 206) = 4.27, p = .04$  for Externalizing).

There is a high level of agreement between the ratings of the parents and the youth on all the symptoms. The correlation matrix between parent- and child-reports is presented in Table 6.

Table 6

*Relations between Parent and Child-report measures at Time 2 (Pearson r coefficients)*

	1	2	3	4	5	6	7	8	9
1. CBCL Internalizing									
2. CBCL Externalizing	.71								
3. CBCL Social problems	.71	.69							
4. CBCL Attention problems	.66	.69	.81						
5. CBCL Social competence	-.54	-.54	-.64	-.60					
6. YSR Internalizing	.61	.49	.55	.53	-.51				
7. YSR Externalizing	.55	.68	.53	.55	-.43	.66			
8. YSR Social problems	.51	.56	.66	.63	-.51	.70	.63		
9. YSR Attention problems	.48	.48	.55	.56	-.42	.71	.74	.67	
10. YSR Social competence	-.45	-.48	-.56	-.47	.75	-.62	-.49	-.63	-.58

*Notes:* CBCL = Child Behavior Checklist; YSR = Youth Self Report; All correlations are significant at  $p < .01$

Some differences were revealed between the returning families (families who participated at Time 1) and new families. On all of the problem subscales as measured by the CBCL, children from new families were significantly higher at  $p < .001$  level.

### **Hypothesis 1: Adopted children's problem behaviors increase over time**

It was hypothesized that at Time 2 (the current study), the internationally adopted children's problems (measured by the CBCL, parent-report) would be higher than at Time 1. Data were available for 45 children who participated at Time 1 and whose parents completed the survey at Time 2 as well. Since the original raw scores were not normally distributed, data transformation was used: two outliers were pulled closer to the rest of the sample. The model included Time (1 and 2), gender (m/f), and Time x gender interaction using SPSS 19 Repeated Measures. Age was entered as a covariate. On the Internalizing scale, no main effect of time ( $F(1, 42) = .41, p = .53$ ), or gender was found ( $F(1, 42) = 2.15, p = .15$ ).

However, a significant interaction effect (Time x Gender) was found ( $F(1, 42) = 5.21, p = .028$ ). Girls', but not boys', Internalizing raw scores increased from Time 1 to Time 2. The results are presented in Figure 3. The hypothesis was partially supported.

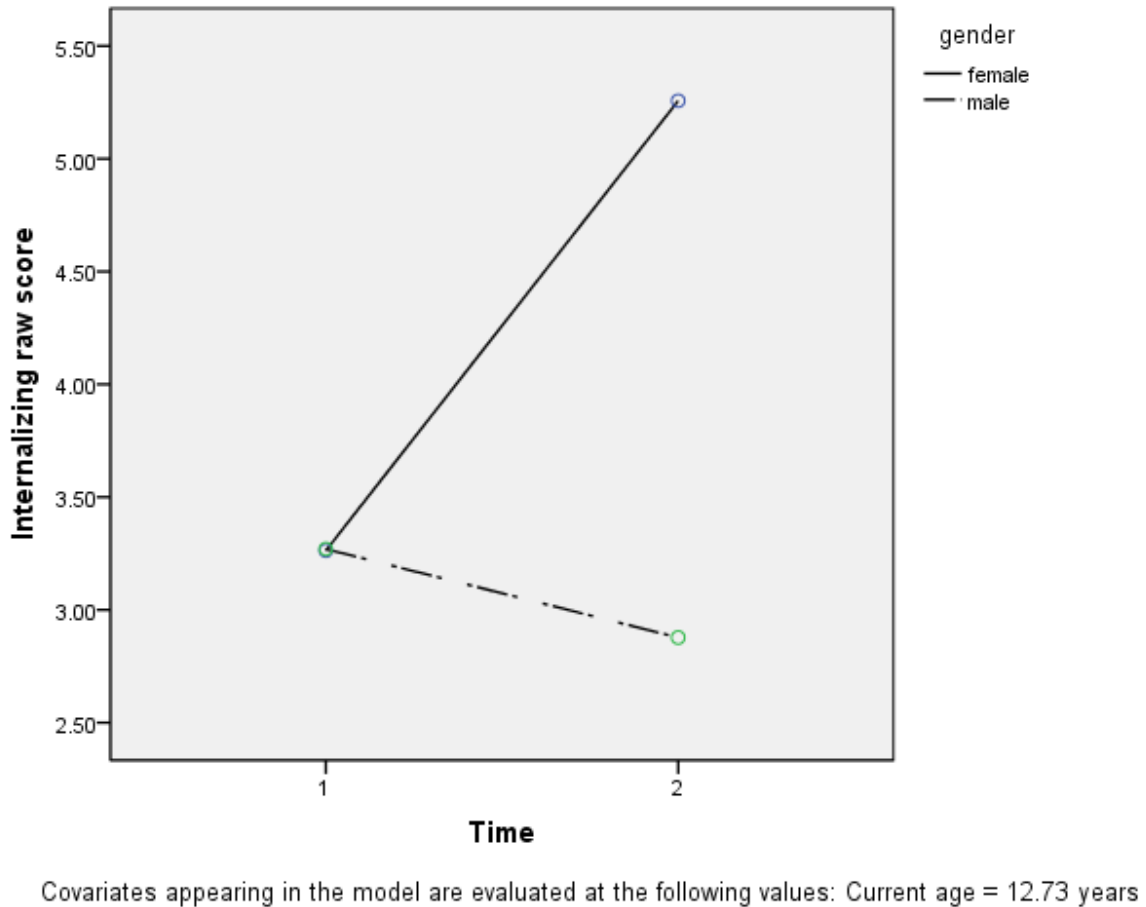


Figure 3. Interaction effect of time and gender on the Internalizing subscale of the CBCL.

For the CBCL Externalizing scale, no main effect of time ( $F(1, 42) = .08, p = .79$ ) or gender ( $F(1, 42) = 2.28, p = .14$ ), or interaction effect of Time x Gender ( $F(1, 42) = .78, p = .38$ ) were found.



**Hypothesis 2: Children adopted younger will display lower levels of emotional and behavioral problems and higher competence scores (measured by the CBCL and YSR) than children adopted at later ages.**

There were no significant correlations between youth-reported (YSR) internalizing and externalizing scores ( $n = 67$ ) and their age at the time of adoption. However, significant correlations between parent-reported CBCL scores ( $n = 194$ ) and age at the time of adoption were found. Specifically, results revealed a positive correlation between age of adopted child at the time of adoption and present level of internalizing problems ( $r = .31, p < .001$ ). As age of the adopted child at the time of adoption increased, the current level of internalizing problems also increased. Similarly, results indicated a positive correlation between age at the time of adoption and level of externalizing problems ( $r = .20, p = .007$ ), such that as age at the time of adoption increased, the level of externalizing problems also increased. A positive correlation was also evidenced between social problems and age at the time of adoption ( $r = .19, p = .008$ ). Age at the time of adoption was negatively related to social competence ( $r = -.16, p = .02$ ), thus the older the child was at the time of adoption, the less social competence this child displays. No significant relation between attention problems and age at the time of adoption was found ( $r = .098, p = .18$ ).

To test the hypothesis, adopted children were broken into two groups: children adopted at 18 months and earlier (Group 1,  $n = 62$ ), and children adopted after 18 months (Group 2,  $n = 127$ ). The number of children adopted before 6 months of age was too low ( $n = 6$ ), thus a cut-off age of 18 months was chosen as a middle between 12 and 24 months proposed by the ERA and IAP studies respectfully. A between-subjects multivariate analysis of variance was conducted with five dependent variables from the parent-report CBCL:

internalizing, externalizing, and attention problems, and school and social competence.

Adoption age group (before or after 18 months) was the independent variable. Current age was entered as a covariate. The Wilk's Lambda test revealed an effect for adoption age group,  $F(5, 182) = 2.58, p = .028$  for the combined dependent variables. Univariate tests revealed that all of the dependent variables were significantly different based on the adoption age group. On the Internalizing scale, children adopted at 18 months and younger were reported to have lower scores ( $M = 7.63, SD = 7.91$ ) than children adopted at an older age ( $M = 11.59, SD = 10.43, p = .001$ ). Similarly, on the Externalizing scale, children adopted at a younger age displayed lower scores ( $M = 9.10, SD = 9.58$ ) than children adopted later ( $M = 14.00, SD = 12.06, p = .011$ ). Additionally, Attention problems scores of children adopted younger ( $M = 5.00, SD = 4.68$ ) were lower than for the children who were adopted after 18 months ( $M = 7.14, SD = 5.29, p = .026$ ). On the Social competence scale, children adopted at 18 months and younger displayed higher scores ( $M = 7.03, SD = 2.26$ ) than children adopted at an older age ( $M = 5.88, SD = 2.42, p = .006$ ). Similarly, on the School competence scale, younger adopted children displayed higher scores ( $M = 4.02, SD = 1.56$ ) than children adopted after 18 months ( $M = 3.31, SD = 1.42, p = .008$ ). The results are displayed in Figure 4. The hypothesis was supported.

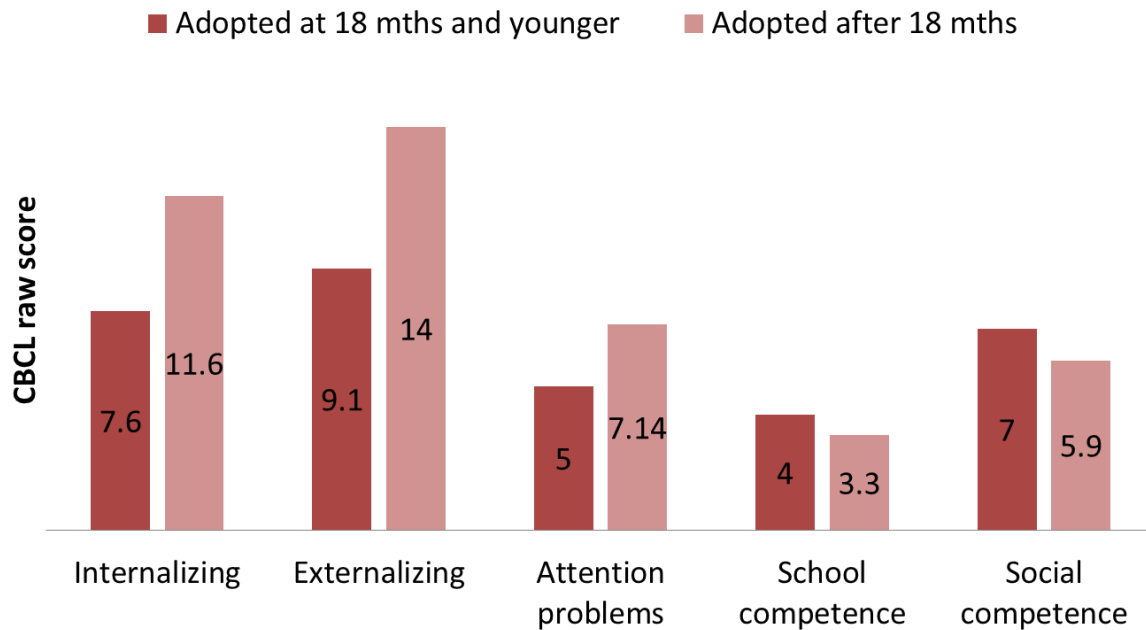


Figure 4. CBCL Problem behaviors and Competence scores based on adoption age group.

**Hypothesis 3: Family environment (as measured by the FACES-III) will be more unbalanced, less cohesive and less adaptive at Time 2 than at Time 1.**

The categories of families from Time 1 and Time 2 are presented in Table 2. A chi-square test revealed that the proportion of balanced, midrange and unbalanced families at Time 1 was no different from Time 2 ( $X^2(2) = .23, p = .89$ ). However, when cohesion and adaptability were used as continuous variables, paired samples t-test revealed that families were more cohesive at Time 1 ( $M = 44.43, SD = 3.10$ ) than at Time 2 ( $M = 42.00, SD = 3.55, t(29) = 3.66, p = .001$ ) and were more adaptive at Time 1 ( $M = 30.97, SD = 3.73$ ) than at Time 2 ( $M = 25.87, SD = 3.66, t(29) = 5.94, p < .001$ ). The hypothesis was partially supported.

#### **Hypothesis 4: Relation between history of preadoption abuse/neglect and problem behaviors and competences in adopted children.**

It was predicted that children with a history of preadoption abuse and/or neglect would evidence significantly higher levels of externalizing and internalizing problems than children without such history. This hypothesis was analyzed using a between-subjects multivariate analysis of variance. MANCOVA was conducted with five dependent variables: internalizing, externalizing, and attention problems, school and social competence. Children's history of abuse and neglect was the independent variable. Participants whose parents could not report whether their child had a history of abuse and/or neglect were excluded from this analysis; children who had a history of both abuse and neglect were placed in the abuse group. Current age was entered as a covariate. The Wilk's Lambda test revealed that the combined dependent variables were significantly different by history of abuse/neglect,  $F(10, 272) = 4.24, p < .001$ . Univariate tests revealed that all of the dependent variables were significantly different based on the history of abuse/neglect. Planned contrasts revealed that children without prior history of abuse/neglect scored lower ( $M = 5.43, SD = 5.10$ ) than did children with history of neglect ( $M = 11.72, SD = 8.53, p = .004$ ) and children with history of abuse ( $M = 11.72, SD = 8.53, p < .001$ ) on the internalizing scale. With regard to externalizing scores, children without preadoption history of abuse/neglect scored lower ( $M = 7.08, SD = 6.60$ ) than did children with reported history of neglect ( $M = 15.34, SD = 13.44, p = .002$ ) and children with reported history of abuse ( $M = 16.96, SD = 13.48, p < .001$ ). On the attention problems subscale, children without history of abuse/neglect before adoption scored lower ( $M = 4.23, SD = 3.63$ ) than did children with history of neglect ( $M = 7.95, SD = 6.06, p = .001$ ) and children with history of abuse ( $M = 7.48, SD = 5.14, p = .004$ ).

As it relates to school competence, children without history of abuse/neglect scored higher ( $M = 4.12$ ,  $SD = 1.46$ ) than did children with history of neglect ( $M = 3.26$ ,  $SD = 1.44$ ,  $p = .008$ ) and children with history of abuse ( $M = 3.35$ ,  $SD = 1.32$ ,  $p = .018$ ). And as for the social competence, children without preadoption history of abuse/neglect scored higher ( $M = 7.53$ ,  $SD = 1.80$ ) than did children with reported history of neglect ( $M = 5.48$ ,  $SD = 2.46$ ,  $p < .001$ ) and children with reported history of abuse ( $M = 5.53$ ,  $SD = 2.41$ ,  $p < .001$ ). Planned contrasts between children with the history of neglect and the history of abuse did not reach significance. The results are reflected in Figure 5.

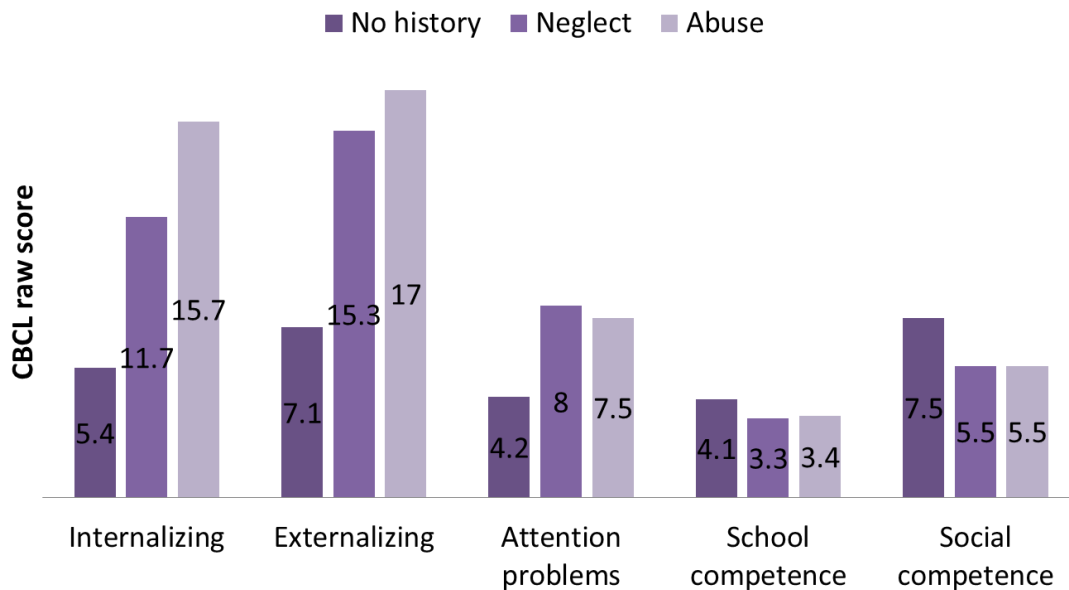


Figure 5. MANCOVA results based on the history of abuse/neglect.

**Hypothesis 5: Children from families with healthy functioning (balanced, more involved and with less conflict) will display lower levels of problems than children from families with less optimal family functioning (as measured by FACES-III and PEQ).**

Since most of the families had several children in them, child-level (level-1) data were nested within family-level (level-2) data. The correlated nature of this family data (as

measured by FACES-III) was accounted for with hierarchical linear methods (HLM), using a combination of SPSS and HLM 7 software. Age of the children and gender were entered as level-1 variables and type of family (balanced, midrange, unbalanced) was entered as a level-2 variable. For analyses, type of family was dummy-coded into balanced and other (combining midrange and unbalanced). The outcomes tested were Internalizing and Externalizing problems.

The analysis began with the two-level unconditional model in order to determine the total amount of variability in the Internalizing and Externalizing scores within and between families. The average family mean raw score was estimated as 10.00 on the Internalizing scale and 11.99 on the Externalizing scale, based on the actual averages in this sample. The pooled within-family or level-1 variance was 73.78 and 108.59, and the variance among the 144 family means was 20.33 and 20.45 on the Internalizing and Externalizing scales respectively. Using this results, the estimated proportions of the total variance between families (i.e., the intraclass correlation) was 0.216 (for Internalizing) and 0.158 (for Externalizing), indicating that about 21.6% of the variance in the Internalizing scores and 15.8% in the Externalizing scores is between families.

The next step in the analysis involved posing a model to control for the variability in the internalizing and externalizing problems in each of the 144 families. Specifically, in the final model at level 1 (the child-level model), the Internalizing and Externalizing scores for child  $i$  in family  $j$  ( $INT_{ij}$  and  $EXT_{ij}$ ) were regressed on age and gender:  $INT_{ij} = \beta_{0j} + \beta_{1j}*(AGE_{ij}) + \beta_{2j}*(SEX_{ij}) + r_{ij}$  and  $EXT_{ij} = \beta_{0j} + \beta_{1j}*(AGE_{ij}) + \beta_{2j}*(SEX_{ij}) + r_{ij}$ .

For the third step, level-2 predictor of family type (balanced vs. other) was entered into the level-2 equations. The final level-2 model was as follows:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(BALANCED_j) + u_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

$$\beta_{2j} = \gamma_{20}$$

The mixed models were then:  $INT_{ij} = \gamma_{00} + \gamma_{01}*BALANCED_j + \gamma_{10}*SEX_{ij} + \gamma_{20}*AGE_{ij} + u_{0j} + r_{ij}$  and  $EXT_{ij} = \gamma_{00} + \gamma_{01}*BALANCED_j + \gamma_{10}*SEX_{ij} + \gamma_{20}*AGE_{ij} + u_{0j} + r_{ij}$

The contribution of the family type as measured by FACES to internalizing ( $t = 1.34$ ,  $p = .184$ ) and externalizing scores ( $t = 1.53$ ,  $p = .133$ ) were not found significant when tested as a categorical variable. However, the contribution of age remained significant ( $t = 2.85$ ,  $p = .006$ ) in the Internalizing model, but not in the Externalizing ( $t = 1.83$ ,  $p = .072$ ).

Another model was built with FACES Cohesion (COHES) and Adaptability (ADAPT) entered as continuous variables in Level 2. The combined models were then:  $INT_{ij} = \gamma_{00} + \gamma_{01}*COHES_j + \gamma_{02}*ADAPT_j + \gamma_{10}*SEX_{ij} + \gamma_{20}*AGE_{ij} + u_{0j} + r_{ij}$  and  $EXT_{ij} = \gamma_{00} + \gamma_{01}*COHES_j + \gamma_{02}*ADAPT_j + \gamma_{10}*SEX_{ij} + \gamma_{20}*AGE_{ij} + u_{0j} + r_{ij}$ . In these models, family Cohesion significantly contributed to both Internalizing ( $t = -2.51$ ,  $p = .013$ ) and Externalizing scores ( $t = -3.00$ ,  $p = .003$ ) in children after controlling for age and gender. However, Adaptability did not reach significance in either of the models. Thus, children from families with higher cohesion displayed lower levels of internalizing and externalizing symptomatology.

Although not proposed initially, alternative models were analyzed with stressful life events (SLE) replacing the BALANCED indicator at level 2. SLE is the number of stressful life events experienced by each adoptive family. The analyzed models were:  $INT_{ij} = \gamma_{00} +$

$\gamma_{01} * SLE_j + \gamma_{10} * SEX_{ij} + \gamma_{20} * AGE_{ij} + u_{0j} + r_{ij}$  and  $EXT_{ij} = \gamma_{00} + \gamma_{01} * SLE_j + \gamma_{10} * SEX_{ij} + \gamma_{20} * AGE_{ij} + u_{0j} + r_{ij}$ . In these models, the SLE was positively associated with children's Internalizing ( $t = 4.10, p < .001$ ) and Externalizing scores ( $t = 4.29, p < .001$ ) after controlling for age and gender. The more stressful events a family experienced in the last 12 months, the higher internalizing and externalizing scores were reported for children.

As for the family involvement and conflict measured by PEQ, these models were tested using hierarchical regression analyses in SPSS as each child had individual scores for each of the PEQ subscales. In the regression models, Internalizing and Externalizing scores were entered as Dependent variables. Age and gender were entered as Independent variables on the first step, and Involvement and Conflict were entered in the second step. The complete parent-report data for the purposes of this analysis were available for 194 children. The complete youth-report data were available from 63 children regarding their mothers and from 52 children regarding their fathers. The results of the regression models are presented in Tables 7 and 8. For the CBCL Internalizing subscale as an outcome, the model was found significant, with Conflict, but not Involvement, contributing to the model above and beyond the influence of age and gender. In the model with CBCL Externalizing subscale, both Conflict and Involvement significantly contributed to the model after controlling for age and gender. Adolescents in families with higher parent-reported parent-child conflict were rated higher on both internalizing and externalizing symptomatology. Parents with higher levels of involvement with their children rated their children as having lower levels of externalizing problems.

Based on youth-report, similar trends were observed. Conflict with the mothers contributed significantly to the models for Internalizing and Externalizing behaviors, while



Involvement with mothers did not contribute to variance in either the Internalizing or the Externalizing models. The more conflict with mothers adolescents reported, the more internalizing and externalizing symptoms they endorsed. Concerning fathers, in the internalizing model, only Conflict significantly contributed, and in the externalizing model, both Conflict and Involvement with fathers contributed to the model. Thus, the more conflict with fathers children reported, the more internalizing and externalizing problems they displayed. The more involvement with fathers adolescents reported, the more externalizing behaviors were endorsed.

Table 7

*Results of Hierarchical Regression Analyses Showing Amount of Variance in CBCL Internalizing and Externalizing Symptomatology Accounted for by PEQ Involvement and Conflict (parent report)*

Outcome and measure	$\beta$	$R^2$	$\Delta R^2$	$F$	$p$
CBCL Internalizing problems					
Step 1:		.051		5.33	.006
Age	.197				.005
Gender	.091				.193
Step 2:		.296	.25	20.67	<.001
PEQ Involvement	-.09				.234
PEQ Conflict	.44				<.001
CBCL Externalizing problems					
Step 1:		.019		1.91	.151
Age	.138				.052
Gender	-.012				.866
Step 2:		.412	.39	34.56	<.001
PEQ Involvement	-.195				.004
PEQ Conflict	.503				<.001

*Notes:* CBCL = Child Behavior Checklist (parent-report); PEQ = Parental Environment Questionnaire (parent- and child-report); YSR = Youth Self Report

Table 8

*Results of Hierarchical Regression Analyses Showing Amount of Variance in YSR Internalizing and Externalizing Symptomatology Accounted for by PEQ Involvement and Conflict (child report)*

Outcome and measure	$\beta$	$R^2$	$\Delta R^2$	$F$	$p$
YSR Internalizing problems					
Step 1:		.136		4.72	.012
Age	-.193				.123
Gender	.362				.005
Step 2:		.361	.23	8.18	<.001
PEQ-Mother Involvement	.083				.588
PEQ-Mother Conflict	.540				.001
YSR Externalizing problems					
Step 1:		.048		1.51	.230
Age	-.153				.241
Gender	.195				.137
Step 2:		.303	.26	6.31	<.001
PEQ-Mother Involvement	.307				.057
PEQ-Mother Conflict	.685				<.001
YSR Internalizing problems					
Step 1:		.160		4.65	.014
Age	-.167				.224
Gender	.410				.004
Step 2:		.420	.26	8.50	<.001
PEQ-Father Involvement	.199				.217
PEQ-Father Conflict	.628				<.001
YSR Externalizing problems					
Step 1:		.055		1.43	.250
Age	-.175				.230
Gender	.209				.152
Step 2:		.418	.36	8.42	<.001
PEQ-Father Involvement	.531				.002
PEQ-Father Conflict	.809				<.001

*Notes:* CBCL = Child Behavior Checklist (parent-report); PEQ = Parental Environment Questionnaire (parent- and child-report); YSR = Youth Self Report

**Hypothesis 6: Children who self-report lower attachment (as measured by the IPPA) will have higher problem behaviors.**

This hypothesis was tested using hierarchical regression in SPSS. Separate models were tested with attachment to mothers and fathers due to multicollinearity between these two variables, thus it was not possible to have them together in the same model. Age and gender of the adopted children were entered in the first step as independent variables. Children's reports of their attachment to their mothers or to their fathers were entered in the second step. Internalizing and externalizing scores from the YSR were the dependent variables. All of the models were significant: That is, children's attachment to their adoptive mothers and fathers predicted both their internalizing and externalizing problems above and beyond the influence of age and gender, in the expected direction. The more attached children were to their adoptive parents, the less problem behaviors they reported. Thus, the hypothesis was supported.

Based on the results of the previous hypothesis, Conflict with mothers was entered into the models on the second step, and then Attachment to mothers was entered in the third step, to test whether Attachment made a significant contribution beyond that of Conflict. In the final models, Attachment to mothers significantly predicted the Internalizing problems after controlling for age, gender and level of Conflict with mothers. The higher attachment children reported the less internalizing symptoms they endorsed after controlling for their age, gender and conflict with mothers. When examining externalizing problems with conflict with mother in the model, attachment was no longer a significant predictor. Similar models with the accounts about fathers were not tested as the sample size of children with fathers

was insufficient to include both father attachment and father conflict in the same models. The results of the models are presented in Table 9.

Table 9

*Results of Hierarchical Regression Analyses Showing Amount of Variance in Internalizing and Externalizing Symptomatology Accounted for by Attachment (child-report only)*

Outcome and measure	$\beta$	$R^2$	$\Delta R^2$	$F$	$p$
Model 1: YSR Internalizing problems					
Step 1:		.11		3.78	.028
Age	-.19				.113
Gender	.30				.015
Step 2:		.42	.31	14.95	<.001
IPPA-Mother Attachment	-.57				<.001
Model 2: YSR Externalizing problems					
Step 1:		.02		.72	.491
Age	-.12				.358
Gender	.12				.354
Step 2:		.21	.19	5.70	.002
IPPA-Mother Attachment	-.45				<.001
Model 3: YSR Internalizing problems					
Step 1:		.12		3.70	.031
Age	-.17				.212
Gender	.35				.011
Step 2:		.39	.27	11.16	<.001
IPPA-Father Attachment	-.55				<.001
Model 4: YSR Externalizing problems					
Step 1:		.022		.61	.548
Age	-.13				.366
Gender	.11				.426
Step 2:		.156	.133	3.20	.031
IPPA-Father Attachment	-.38				.006
Model 5: YSR Internalizing problems					
Step 1:		.14		4.75	.012
Age	-.20				.113
Gender	.36				.005

Step 2:		.37	.23	11.53	<.001
PEQ-Mother Conflict	.49				
Step 3:		.48	.11	13.16	<.001
IPPA- Mother Attachment	-.59				.001
Model 6: YSR Externalizing problems					
Step 1:		.04		1.26	.292
Age	-.14				.301
Gender	.18				.166
Step 2:		.28	.24	7.68	<.001
PEQ-Mother Conflict	.50				
Step 3:		.295	.014	6.07	<.001
IPPA-Mother Attachment	-.22				.283

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*Notes:* YSR = Youth Self Report; PEQ = Parental Environment Questionnaire; IPPA = Inventory of Parent and Peer Attachment

**Hypothesis 7: Adopted girls will be more preoccupied about their adoption (measured by the ADQ) than adopted boys.**

To test this hypothesis a One-way ANOVA model was built, where children's preoccupation with their adoption was entered as a dependent variable, and children's gender served as a factor. The results revealed no significant differences between girls ( $M = 24.92$ ,  $SD = 6.74$ ) and boys ( $M = 27.39$ ,  $SD = 5.88$ ,  $F(1, 61) = 2.32$ ,  $p = .133$ ). Thus, the hypothesis was not supported.

**Hypothesis 8: Adopted children who are more preoccupied with their adoptive status (ADQ) will be more likely to display emotional and/or behavioral problems.**

This hypothesis was tested using hierarchical regression modeling in SPSS. Children's reports of internalizing and externalizing problems were the dependent variables. To control for age and gender, these variables were entered on the first step. Youth's preoccupation with adoption (ADQ) predicted Internalizing problems, but not Externalizing

problems. Children who were more preoccupied with adoption reported more Internalizing problems, controlling for age and gender.

To make the models more complete and considering the results of the previous hypotheses, children's Conflict and Attachment to their adoptive mothers were entered on the second step along with their Preoccupation with adoption. Sample size was insufficient to include father attachment or father conflict in the models. In the Internalizing model, preoccupation with adoption and conflict with mothers were no longer contributing significantly to the model; however, attachment continued to be a significant predictor of the problems. In the Externalizing model, with all three predictors (Preoccupation, Conflict and Attachment) entered on the second step, none of the variables reached significance, thus in the final model, Attachment was dropped based on the results of Hypothesis 5 (see Table 9). As a result, Conflict with mothers continued contributing significantly to the externalizing behavior in adopted youth, but Preoccupation with adoption did not reach significance. Table 10 displays the results of these regression models.

Table 10

*Results of Hierarchical Regression Analyses Showing Amount of Variance in Internalizing and Externalizing Symptomatology Accounted for by Preoccupation with Adoption (n = 62)*

Outcome and measure	$\beta$	$R^2$	$\Delta R^2$	$F$	$p$
Model 1: YSR Internalizing problems					
Step 1:		.13		4.47	.016
Age	-.20				.109
Gender	.35				.007
Step 2:		.23	.10	5.87	.001
ADQ Preoccupation	-.32				.008
Model 2: YSR Externalizing problems					
Step 1:		.04		1.16	.322
Age	-.14				.292
Gender	.17				.199
Step 2:		.09	.05	1.90	.140
ADQ Preoccupation	-.23				.075
Model 3: YSR Internalizing problems					
Step 1:		.13		4.47	.016
Age	-.20				.109
Gender	.35				.007
Step 2:		.48	.35	10.28	<.001
ADQ Preoccupation	-.11				.300
PEQ-Mother Conflict	-.01				.962
IPPA-Mother Attachment	-.56				.002
Model 4: YSR Externalizing problems					
Step 1:		.04		1.16	.322
Age	-.14				.292
Gender	.17				.199
Step 2:		.28	.24	5.48	.001
ADQ Preoccupation	-.06				.659
PEQ-Mother Conflict	.48				<.001

*Notes:* YSR = Youth Self Report; ADQ = Adoption Dynamics Questionnaire; PEQ = Parental Environment Questionnaire; IPPA = Inventory of Parent and Peer Attachment

## Discussion

The purpose of the present study was to examine the adjustment of older children and adolescents adopted at various ages from Eastern Europe and the impact of their family's functioning on their adjustment. Additionally, such variables as age at the time of adoption,

history of preadoption abuse/neglect and children's preoccupation with adoption were examined as potential predictors of adolescents' emotional and behavioral problems. Our findings reveal that each of these factors played a role in the adjustment of these adopted youth.

In general, previous research shows positive outcomes for a majority of children adopted into private homes from institutions (e.g., Gunnar et al., 2007; Hellerstedt et al., 2008; Rutter et al., 2001, 2007; Windsor et al., 2007). Despite significant developmental delays associated with socioemotional deprivation in institutions, adopted children display tremendous catch-up in development (Bakermans-Kranenburg et al., 2008; van IJzendoorn & Juffer, 2006; Rutter, 1998; Rutter et al., 2007). On the other hand, studies indicated that these adopted children are more likely to experience emotional, behavioral, social and/or academic problems than their non-adopted peers (i.e., Andresen, 1992; Bimmel et al., 2003; Brand & Brinich, 1999; Brodzinsky et al., 1987; Groze, 1996; Verhulst et al., 1990).

Participants involved with the present study were 145 families from across the United States with 194 children whom they adopted from Eastern Europe (Russia, Ukraine, Romania, Azerbaijan, Uzbekistan, Kazakhstan, Bulgaria, Latvia and Moldova) and who were between ages 9 and 19 years at the time of the study. Forty-five of the children were from the previous study when children were between 4 and 11 years, thus constituted a longitudinal sample. Children participating in this study came predominantly from two-parent families (76%). Similarly to other adoptive parents, participants reported high levels of education. Broad areas of findings are discussed next in their own sections.



## **Problem Behaviors in Adopted Children**

Based on the parental reports, the current sample (both the girls and the boys) displayed higher levels of internalizing and externalizing symptomatology on the majority of the subscales as compared to a nonclinical standardized population. This is consistent with other studies (e.g., Gunnar et al., 2007; Juffer & van IJzendoorn, 2005), but research in this area is not all conclusive. For example, a meta-analysis by Bimmel et al. (2003) indicated that internationally adopted children displayed slightly more behavioral problems than their non-adopted peers, with the difference seen in externalizing, but not in internalizing, problems. In their analysis, they the gender differences were addressed as well. Out of the ten studies, only two found more behavior problems in adopted girls than in non-adopted girls, while five indicated no more behavioral problems in adopted adolescents (either boys or girls) than in their non-adopted counterparts. The remaining three studies had mixed findings depending on the child's gender. For instance, one study revealed that adopted girls scored higher than the general population on internalizing and externalizing problems, whereas adopted boys scored higher on attention problems and on delinquent and aggressive behaviors. In the current sample, both boys and girls evidenced higher scores on internalizing, externalizing (including delinquent and aggressive behaviors), and attention problems based on their parent's report. The inconsistency in study findings may be explained by methods and measures used to collect the data. When interpreting the results, researchers always have to keep in mind whether participants were self-selected, whether only parent reports were collected, or whether interview and observations with parents, children, and teachers were used.

With regard to youth report in the present study, only one third of the adopted children ( $n = 69$ ) participated. Adoptive parents did not give consent to almost half of the children in the sample to participate in the study. It is possible that the parents of more troubled children did not feel comfortable asking their children to complete the surveys. From personal communications with several of the adoptive parents who did not permit their children to participate, some of the parents indicated that they believed that their child was not mature enough to answer such questions or that they did not want their child to start thinking about such issues, or they felt that these questions were too sensitive for their adolescent to respond to. It was not the case that parents of older children were more likely to give permission to their adolescents to complete the survey than parents of younger children, as no age differences between these groups were found.

From the analyses based on the parental reports it was evident that the youths who completed the surveys had lower (better) levels of internalizing and externalizing symptoms than children who did not self-report. As a result, based on youth report, responding adopted children were no different from the normative sample on either internalizing or externalizing scales. In fact, reporting adolescent boys scored lower (better) than the norm on withdrawn and somatic complaints subscales. It can be speculated that only the most well-adjusted adolescent boys participated in the study. It is also important to note that parent and children reports of problem behaviors were highly correlated, thus yielding that adoptive parents and their children provided similar accounts of their emotional and behavioral difficulties.

### **Longitudinal Findings**

In the current longitudinal sample with 45 children who were first assessed in early childhood, fewer increases in problematic behaviors appeared than expected. Girls', but not

boys', internalizing raw scores increased with age. For both boys and girls, externalizing behaviors did not change with age. The Time 2 sample is likely a select group, the best-adjusted group, of our adopted samples. Children in the longitudinal sample had significantly lower problem behavior scores and higher competence scores than children from the new recruitment. Another interesting aspect about these children is that they come from more cohesive families. Families who dropped out from the study were less cohesive at Time 1.

Research with regard to age trends in psychological problems has not been consistent either. Some studies of nonclinical samples of children found a general decline in overall problems with age (Achenbach & Edelbrock, 1981). Specifically, results of Achenbach and Edelbrock's (1981) study revealed that fifteen of the problems associated with externalizing syndrome (e.g., mean, demands attention, destroys own or others' things, disobedient at home, easily jealous, fighting, attacks people, prefers older children, screams a lot, showing off, stubborn, talks too much, temper tantrums, and unusually loud) declined with age and five of the externalizing problems (e.g., hangs around with children who get in trouble, runs away from home, swearing, sexual preoccupation, and truancy) increased. With regard to internalizing behavior, the results of the same study (Achenbach & Edelbrock, 1981) evidenced a decline with age in seven of the internalizing problems (e.g., shy or timid, lonely, cries a lot, fears to do something bad), and an increase with age in nine of the problem associates with internalizing syndrome (e.g., likes to be alone, dizzy, headaches, refuses to talk, secretive, underactive, unhappy, sad or depressed, suspicious). On the other hand, similar studies of clinical samples have found an opposite trend (Achenbach, Howell, Quay, & Conners, 1991), that psychological problems in children increase with age. With nonreferred samples, more increase in internalizing symptomatology is noticed in girls than

in boys. The opposite is observed with externalizing problems for nonreferred children, where externalizing symptoms decreased with age, especially for boys (Achenbach et al., 1991).

Thus, given prior research about internalizing and externalizing symptomatology over time among children, the results of this study are not surprising. When they were younger, the longitudinal sample was low on problem behaviors, and at Time 2 they remained low, with girls' internalizing scores increasing just slightly, which is a normal trend.

### **Adoption History as Predictor of Adolescents' Adjustment**

**Age at the time of adoption.** The younger the children were at the time of adoption, the better their adjustment in adolescence. This became clear in the comparisons between those adopted before, and after, 18 months of age. The children adopted prior to 18 months were significantly better off on all outcomes: Internalizing, Externalizing, Attention, Social Competence, and School Competence. Children adopted after 18 months struggled in all areas. The “adopted early” group averaged 11 months (range 6 to 18 months) at adoption, while the “adopted later” group averaged 6 years (range 19 months to 16 years). Their early life experience was obviously quite different, and this showed up in how they fared in adolescence. Only 10 children (15.9%) from the “adopted early” group scored in the clinical range for internalizing problems versus 26 children (20.2%) from the “adopted late” group. With regard to externalizing symptomatology, only 13 children (20.6%) from the “early adopted” group scored in the clinical range versus 52 children (40.3%) from “adopted later” group, almost double increase of clinical cases among children adopted later.

Our findings replicate the consistent finding across studies, that the younger the children when removed from institutional care and placed in adoptive homes, the better the

outcome for the children's development (e.g. Becket et al., 2007; Groze, 1996; Gunnar et al., 2002, 2007; Sharma, McGue, & Benson, 1996; Simmel, Brooks, Barth, & Hinshaw, 2001). There have been inconsistencies, though, when it comes to a specific cut-off age of when children should be placed for adoption to ensure that these children do not suffer from the effects of institutional deprivation. Some researchers argue that such adoptions have to take place before 6-12 months of the child's life (i.e., Beckett et al., 2007), whereas others place this cut-off at 24 months (i.e., Gunnar et al., 2002, 2007). Researchers refer to attachment and brain development in explaining why there is a "sensitive" age at which children must leave an institution to lessen its long-term effects on their development. For the purposes of the current study, we chose 18 months as a cut-off age in predicting adopted children's successful adjustment in adolescence, simply to achieve a sufficient sample size to make a comparison. Similar to other studies, children adopted before 18 months of age evidenced lower problem behaviors, and higher social and school competence.

**Abuse and neglect prior to adoption.** Abuse and neglect are common in institutional settings. Neglect is almost a given. Social deprivation is inherent in institutions (Gunnar et al., 2000; Rutter et al., 2007, 2010). In the current study, children's preadoption history of abuse and/or neglect played a role in their current adjustment. Children without such history showed, by parent report, lower internalizing, externalizing, and attention problems as well as higher social and school competence. This is in line with other research conducted with adopted children. For example, in the California Long-Range Adoption Study, a history of preadoption abuse contributed to the greater occurrence of both ADHD and ODD symptoms (Simmel et al., 2001). We did not have access to the actual histories of children and thus relied on a simple yes/no report from the adoptive parent. Thus, we do not

know the type or extent of maltreatment that may have occurred for these children. Even with this crude measure, the effect of abuse or neglect showed up in more problems and poorer social and school competence for these adopted children.

### **Family Environment**

**Parental environment.** Parental environment played a role in children's adjustment. Specifically, children did not fare well when there was conflict in the home with their parents. Higher levels of conflict with both the mothers and the fathers, as measured by the PEQ, were associated with higher levels of internalizing and externalizing problems in children, based on both parent and youth reports. This supports a goodness-of-fit or interactional model proposed by Lerner (1993). Within this framework, child's adjustment depends on the "fit" between parent and child characteristics. If compatibility between parents and children is low, it may result in a conflictual relationship. Although we did not measure the actual "fit" between parents and their adopted children's personalities, conflict served as a proxy to this model. The findings from the current study are similar to the findings from a study conducted with domestically adopted children (Grotevant et al., 2001), where higher compatibility between adoptive parents and their adopted children was associated with adolescents' better psychosocial adjustment and lower levels of problem behaviors.

With regard to parental involvement and its association with adopted children's emotional and behavioral problems, mixed results were revealed. Based on the parental reports, high involvement with children was associated with children having lower externalizing problems. However, based on youth report, fathers' involvement was related to externalizing problems, but in an unexpected direction. Children who reported higher

involvement from their fathers had higher externalizing scores. The explanation might be that as youth become involved in externalizing behaviors, their fathers step in and show high involvement. It also may be a spurious finding due to a smaller size of this sample used in the model with multiple variables at the same time, as the simple correlations alone did not reveal these relationships.

**Family type (FACES-III).** When examined using two-level HLM analyses, family typology (balanced versus midrange and unbalanced) did not play a role in children's levels of internalizing and externalizing symptomatology. These "types" are derived from scores on cohesion and adaptability. When cohesion and adaptability were used as continuous variables in the models, family cohesion, but not adaptability, played a role. Children in the families with higher cohesion showed less internalizing and externalizing symptoms, as reported by parents. This finding replicated previous research. For example, in another study of families with children adopted from the former Soviet Union countries (McGuiness& Pallansch, 2000), the high scores on the cohesion and expressiveness family subscales were related to better competence in the adopted children. Studies with non-adopted children reveal similar patterns (i.e., Sturge-Apple, Davies, & Cummings, 2010).

Bringing these two family measures together, these adopted children were better adjusted when they had low conflict with their parents and when their families were cohesive. This is no doubt a circular relationship. Children who are misbehaving at home are most likely sparking conflict with their parents, and children with problem behavior disrupt the cohesiveness of the family. It is not possible to tease out the direction of effect, but the implication is still clear: Family environment and adolescents' adjustment go hand in hand.

## **Attachment in Adopted Youth**

In the current study, after accounting for age and gender, children who reported more attachment to their mothers and fathers self-reported lower internalizing and externalizing problems. For internalizing problems, this significant effect held even after controlling for conflict in the families; this was not the case for externalizing problems, however. For externalizing problems, conflict accounted for the strongest portion of variance. This finding is similar to the result of the ERA study, where in the post-institutionalized Romanian children, disinhibited attachment was associated with other forms of psychopathology, such as inattention/overactivity, conduct problems, cognitive impairment, quasi-autism and peer relationship problems, and higher service usage at age 6 (Rutter et al., 2007b). Although in the current study, adolescents self-reported their own attachments, and their current attachment was related to their current problem behaviors, it is one of the first studies that attempted to relate self-reports of attachment, family conflict, and emotional problems from adolescents adopted from Eastern Europe.

Attachment normally develops during infancy and early childhood, and that is when it is usually measured. Attachments can also develop post-infancy, and that is the case for the majority of our sample, who were adopted after they were a year old. The measure used in this study captured the children's current feelings of trust, communication, and alienation toward each of their parents. Bowlby proposed that infants develop internal working models, or mental representations of attachment relationships, which constitute the basis for expectations in close relationships (Kowalski & Westen, 2005). Bowlby suggested that infants construct models of how their caregiver may be expected to behave, how the infant is expected to behave, and the dynamics of their interaction. As the child develops and the



environment becomes increasingly complex, these models become more elaborate and abstract. Early working models are eventually internalized and applied to other types of relationships (Klohn & John, 1998). And this could be the case for adolescents in our sample. Attachment to the mother and father was related to having fewer internalizing and externalizing problems.

### **Adolescents' Interest in Adoption**

Healthy levels of interest in adoption are indeed beneficial for child's identity development (Grotevant et al., 2007). But when this interest goes beyond just simply knowing the adoption story and what the birthparents look like, it can lead to what some researchers call "preoccupation" and negative feelings about adoption (i.e., Juffer & Tieman, 2009; Kohler et al., 2002). In the current sample, children who were more preoccupied with their adoption reported more internalizing problems. Thus, children who were worried about their adoptive status were also worried in general. When conflict with parent and attachment were added, preoccupation with adoption was no longer related to problem behaviors. Thus, preoccupation with adoption plays a role in children's internalizing problems, but in this case, attachment was more important.

In the current study, parents seem satisfied with their adoption for the most part, and their children seem to be comfortable with the fact that they are adopted and express healthy levels of interest in their adoption history. Some differences with previous research were found, however. For example, in Juffer and Tieman's (2009) study, half (49.6%) of children adopted from China wished that they were born in the adoptive family. In the current sample of children adopted from Eastern Europe, only one-fourth of the children wished that they had been born in their adopted family. This discrepancy might be explained by the racial

makeup of families and specifically whether the adopted child is the same race as the adoptive parents. Children from Eastern Europe are less likely to struggle with racial identity, as they are the same race as their adoptive parents, thus yielding less dissonance and confusion in figuring out who they are. It is possible that children in inter-racial adoptions feel that if they were born to their adoptive parents, they would be more like them and experience less confusion about their racial identity. It goes along the lines with theory of adoptive identity (Grotevant et al., 2007).

### **What Did We Find**

When putting all of the examined factors together, this study supported previous research as it relates to the importance of placing children into permanent homes sooner rather than later in order to ensure their healthy adjustment and reduce the risk of emotional and behavioral problems. Children adopted as infants and toddlers evidenced lower problem behaviors and higher competence scores than children adopted at later ages. History of preadoption abuse and/or neglect also played a role. Children without such history appear to be adjusting better during adolescence than their peers with reported history of either abuse or neglect.

Relationships with the adoptive parents and family environment also contributed to better adjustment in our sample of adopted children. When looking at the family environment, it is evident that children fare better in more cohesive families. Additionally, less conflict between adolescents and their parents is associated with lower levels of emotional and behavioral problems. Attachment to both mothers and fathers was also found to play a role in adopted children's adjustment. Adolescents with higher attachment levels to their parents self-reported lower internalizing and externalizing problems.

Adolescents' interest in their adoptions is a healthy thing; however, excessive preoccupation was associated with higher levels of internalizing behaviors, such as anxiety and depression. Preoccupation with adoption was not related to externalizing behaviors, as reported by children.

The data for this study were collected nationally using an online method. It is one of the few studies that attempted to use triangulation and collect both parent- and child-report as it relates to the adjustment of children adopted from Eastern Europe. The unique aspect of this study is that it investigated the contribution of attachment, conflict with parents and children's preoccupation with their adoption to their internalizing and externalizing problems at the same time.

### **Limitations**

The sample selection process and the use of a convenience sample served as a limitation in the present study. The recruitment was limited to families the investigator could locate. This included families who participated in the previous study and to a few adoption organizations who distributed invitations to participate in the study to their clients. Thus, this is not a full representation of families with children adopted from Eastern Europe, nor were the families a random selection of the full group of families.

Another limitation in the present study involved the sample size. Data on 194 adopted children were collected. Although it is a large enough sample for most of the analyses presented in this paper, this sample size did not allow for some more complex modeling where all of the variable could be entered at the same time to determine the strongest predictor out of all factors being measured. With a larger sample, it would be possible to determine how adolescents' preadoption history, their own characteristics and

interest/preoccupation with their adoption, as well as relationships with the adoptive parents and family environment interact together in predicting adopted children's adjustment.

The retention rate for the longitudinal sample was low (56%), which made that group even smaller. Additionally, it is important to point out the difference in data collection methods at Time 1 and Time 2. The follow-up families completed paper surveys at Time 1, but at Time 2 they were asked to complete these surveys online. Different methods of data collection could serve as a threat to internal validity for our longitudinal sample.

Our original plan was to collect enough data to be able to compare adopted children to their non-adopted siblings. There were not enough data regarding non-adopted siblings, thus such comparisons were not possible in the current study.

Using only parent-report and self-report questionnaires does not guarantee the valid measurement of adopted children's behavioral and emotional problems. No direct observations or interviews of the children or families were conducted, nor were school records or clinical reports examined. Additionally, when using self-report measures, participants could respond in a more socially desirable manner and underreport their difficulties. In the study, parents were also asked to recall pre-adoption history, and it is possible that some of their recalls were inaccurate. Thus, the findings of this study should be interpreted with caution. However, this study was strengthened by utilizing children's accounts of their behaviors along with the parents' reports, avoiding a mono-reporter bias. Yet, only a little over half of the parents gave consent for their children to participate in the study, and we show evidence that parents denied consent for children with more problems. About 70% of the consented children completed the surveys. This may have biased the

results of the study as it is likely that children who were less well-adjusted did not have access to the study.

The study was conducted without financial support, and this limited the scope of data collection. It is possible that more children would have participated if larger or universal incentives were offered. Recruitment on a more national scale through the help of multiple adoption agencies is recommended to ensure the representativeness of the sample

### **Future Directions and Implications**

The findings from this study reiterate the importance of placing children into permanent homes as early as possible. This is an important finding on the policy level, as it supports the idea of expediting the adoption process for the long-term good of the child. However, a balance between fast track adoptions and careful agency practices needs to be satisfied so that abuses do not occur. Thus, in accordance with the guidelines of the Hague Convention on Intercountry Adoption, multiple safeguards must be in place (Hague Permanent Bureau, 2011). Children's eligibility for intercountry adoption must be established before being considered for placement abroad. The interests of the birth parents must be protected so that they do not give up a child without full informed consent or for financial gain. Adoptive families must be screened and counseled, including pre-adoption education, to ensure that the children will be placed in a strong and 'ready' family. Adoptive parents in turn need to be provided with accurate information about the child's health, background, and developmental status. Training should be provided to parents on the issues unique to children adopted from institutions, sometimes tailored to a specific child and condition, so they are aware of what to expect and where to go if problems arise. The adoption agency's

involvement with adoptive families must continue long after placement for monitoring purposes and for providing families with help as needed.

Families have to be aware of different intercountry agreements with the country from which their child is being adopted, as not all of the countries are members of the Hague convention and some differences in the adoption process and post-adoption monitoring may exist (U.S. Department of State, 2011). When these policies are not followed, tragedies can happen in the lives of all concerned—the birth parents, the adoptive families, and most especially, the adopted children (Rotabi, 2011).

Another consideration in intercountry adoptions is that the child is removed from his or her home culture. Researchers discuss the salience of cultural identity for children from intercountry adoption (e.g., Beckett et al., 2008). For some adopted adolescents it is indeed an important aspect of their identity, for others it is not much of a concern. According to one of the Articles from the United Nations Convention on the Rights of the Child, every child has a right to preserve his or her identity, including nationality (Rotabi, 2011). On one extreme, there are strong opponents of intercountry adoptions, such as an international adoptee himself Peter Dodds (Dodds, 1998), as they feel that it is not in the best interests of the children to remove them from their heritage and motherlands. On the other side, the cost of possible issues with cultural identity has to be compared with the cost of the effects of institutional deprivation on this child's development. If the only alternative for the child is to remain in an institutional setting because a domestic family placement was not secured in his or her birth country, then placement of this child through intercountry adoption is considered to be in the best interests of this child. Adoption has been proven to be the best intervention for children from institutions (van IJzendoorn & Juffer, 2006).

To alleviate the loss of cultural heritage, adoptive families are advised to find ways to keep the home culture alive in the child's life. They may acquire artifacts from the home country to display in their homes or special toys or clothes that the child can play with or wear. Families may make efforts to have child visit their home country, learn the language, celebrate festivals, and meet other children and families from their home country. Social workers may recommend social outlets and support groups for families who adopted internationally and encourage families to maintain the child's heritage to the extent possible. For example, support groups such as Families for Russian and Ukrainian Adoption (FRUA) can be a good outlet for parents and children in learning more about their birth country and its traditions. In the United States, there are special camps where families with children adopted from other countries can get together, and adopted adolescents can discuss their concerns with other adolescents adopted from the same country (e.g., [www.heritagecamps.org](http://www.heritagecamps.org)).

In this study, we attempted to investigate how much children adopted from Eastern Europe are preoccupied about their adoptive status, but the issue of cultural identity was not addressed here. More research is needed in the area of ethnic/cultural identity as it pertains to children from intercountry adoption and their adjustment.

Another implication is that while early adoption is the ideal, the door to finding a permanent home should not be closed to children who are older. There are many older children who do not have a home, and adoptions of older children can work. Parents and professionals should not assume that children adopted at older ages would develop psychological problems; these tendencies do exist, but they are not certain to occur. Other factors in child's development have to be considered, such as family environment, children's

relationships with the parents, their level of interest in adoption and many others. Children from every country need and deserve a permanent home in a well-functioning family, and the policies and practices of nations, agencies, and individuals should work toward that end.



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## **Appendices**

## Appendix A

### Letter to Adoptive Parent(s) Requesting them to Participate in the Follow-up Study

Dear Adoptive Parent(s),

You may remember participating in my study about 5 years ago, the results of which I sent you in 2005. It was my Thesis project, which I have successfully defended. Currently, I am conducting a follow-up study to this project examining the adjustment of children adopted from Eastern Europe and their families. Since most of the adopted children are now in their adolescence, this time we will also ask your children to fill out this online survey. Both your adopted and non-adopted children between the ages of 11 and 18 years are invited to participate.

As you know, adoption is a wonderful way to help children who would not have a family otherwise, and the majority of internationally adopted children are adjusting well. Yet, adolescence may bring new issues when teens are trying to figure out who they are and where they came from. We are hoping to gain insight concerning the factors contributing to both their strengths and difficulties. This research is a dissertation project being conducted by me, Maria I. Kuznetsova, a doctoral student in Developmental Psychology, under the supervision of Dr. Barbara J. Myers, an Associate Professor of Psychology at the Virginia Commonwealth University (VCU).

To participate in this project, one parent will complete the online questionnaires, the link to which is provided below. After you submit your responses, you will be asked to invite your children to complete similar online questionnaires. Only children between the ages of 11 and 18 for whom you provided your consent and background information may complete these questionnaires. To encourage your children's participation, they will have a chance to win one of four iPod Nanos in the color of their choice.

If you decide not to participate, please email me back and ask me to remove you from the mailing list or simply say "No, and please do not contact me again."

We would greatly appreciate your participation, as it will help us to better understand children's well-being, as well as how they feel about their adoptive status. Thank you in advance.

Here is the link to the study if you are ready to participate: <https://survey.vcu.edu/cgi-bin/qwebcorporate.dll?idx=WBN9GZ>

Sincerely,

Maria I. Kuznetsova, M.S.  
Doctoral Candidate

Barbara J. Myers, Ph.D.  
Associate Professor of Psychology

## **Appendix B**

### **Advertisement for Recruiting New Families Placed on Appropriate Websites (i.e., FRUA) and sent out as a flyer**

**[PHOTO]**

#### **Adjustment of Families with Children Adopted from Eastern Europe**

This study is for families with children adopted from Eastern Europe. It will help us to understand the strengths and difficulties of the children and the families once their adopted children are adolescents.

If you have an adopted child age 11-18 years from Eastern Europe, your family is eligible to be in the research study. It is an online questionnaire study with parts for the parent, the adopted child, and non-adopted siblings. It would take 20-40 minutes of your time depending on how many children you want to complete this survey on. To thank children and teens who take part, they will have the chance to win one of four new iPod Nanos. Please go to this webpage to see more information and get started:

<https://survey.vcu.edu/cgi-bin/qwebcorporate.dll?idx=WBN9GZ>

You may contact Maria Kuznetsova (VCU Psychology Department) at [kuznetsovami@vcu.edu](mailto:kuznetsovami@vcu.edu) or (804) 221-5168 to ask questions, to send you a direct link to the survey or to receive a paper version of this questionnaire.

This study has been approved by the IRB at Virginia Commonwealth University.



## Appendix C

### Informed Consent (Page 2 of the Parent Online Survey)

**Before beginning the survey, please read this additional information concerning the study:**

- By completing and submitting this questionnaire, you are agreeing to participate in a research study that is being conducted for a dissertation project.
- Your children (ages 11 to 18), both adopted and non-adopted, are invited to be in the study. However, they will not be contacted until you give permission on the last page of this study. All children, who participate, will have a chance to win one of four new iPod Nanos.
- This survey will take approximately 20 to 40 minutes to complete (depending on how many children you want to complete it on).
- All responses that you give will be anonymous. We do not ask for contact or otherwise identifiable information, except to provide your child's first name, initial of the last name (for example, Tom S.) and date of birth, so we can link your responses to your child's responses. All information will be stored using identification numbers. The only individuals who will have access to the data are Dr. Myers and myself.
- Results from this study will be analyzed aggregately (as a group) and may be published in journals, presented at conferences, and used for educational purposes. You will not be compensated for any presentation or publication of the results.
- A possible risk is that you may feel uncomfortable about answering questions about your child(ren) and family. BUT please know that if there is any question you do not feel comfortable answering you can just leave that question blank and go onto the next.

- A potential benefit of participation is that you will have the opportunity to share your experiences in raising adopted and non-adopted children.
- Your choice to participate in this survey is voluntary. You may choose (a) not to answer a certain question or questions and (b) not to submit your answers once you have completed the questionnaire.
- By providing your child's first name and last initial, as well as date of birth, you are giving consent for your child's participation in this research study. Your adopted and non-adopted children for whom you complete the information will be completing similar questionnaires online.
- When your child(ren) complete this online survey, please, provide them with some privacy and do not help them with the answers unless they ask you to. For example, children can do it on a different computer at home, or at school, library, coffee shop. If you are using the same computer, send the completed survey in without saving it or consider saving it to a folder that the other person does not access.

Please feel free to print out a copy of these informed consent items to keep for your records. Simply click the "print" icon in the toolbox menu of your browser.

If you have any questions about this study, or if you would like to receive a paper version of this survey, please feel free to contact us.

By e-mail:

Maria Kuznetsova at [kuznetsovami@vcu.edu](mailto:kuznetsovami@vcu.edu)

Dr. Barbara Myers at [bmyers@vcu.edu](mailto:bmyers@vcu.edu)

By phone:

(804) 828-6752

By mail:

Department of Psychology

808 West Franklin Street, Virginia Commonwealth University

Richmond, VA 23284-2018

If you have any specific concerns about your participation rights, you may also contact the Office of Research Subject Protection  
800 E. Leigh Street  
PO Box 980568, Richmond, VA 23298

By phone at (804) 827-1735

By e-mail at [orsp@vcu.edu](mailto:orsp@vcu.edu)

## **Appendix D**

### **Description of the Study and Informed Assent (Page 1 of the Child Online Survey)**

#### **You Get to be in a Study!**

Remember, you will have a chance to win one of four brand new iPod Nanos in the color of your choice once you complete this online survey! Make sure that your parent already gave you permission to complete this online survey. Read this before you answer the questions:

#### **What is this study about?**

This study is about families with children adopted from Eastern Europe, including their brothers, sisters, and parents. It will help us to understand your strengths and difficulties and what is going on in your life.

#### **What will happen to me if I choose to be in this study?**

You will answer some questions about yourself and your family. It will take you about 20 minutes to complete. You may stop and save your answers at any point and return to it later.

#### **What might happen if I am in this study?**

Sometimes answering questions about feelings makes people upset. You may feel uncomfortable about answering some questions about you and your family.

#### **What do I get if I am in this study?**

Your name will go in a hat for a chance to win an iPod Nano when you finish and submit your answers. Four young people will win. Winners get to choose the color of their new iPods, so even if you already own one, this one can be new and different.

#### **Will you tell anyone what I say?**

We will not tell anyone the answers you give us. We will not share your answers with your parents. If we talk about this study in speeches or in writing, we will never use your name.

**Do I have to be in this study?**

You do not have to be in this study. You do not have to answer any question that you don't want to answer. You may stop at any time.

**Questions**

If you have any questions, ask your parent or you can ask me, Maria Kuznetsova, through e-mail at [kuznetsovami@vcu.edu](mailto:kuznetsovami@vcu.edu)

**Ready to start?**

IF you are interested in participating in this study, please hit the "**Next**" button on the bottom of your screen.

IF you are NOT interested in participating just close the screen without hitting any buttons.

Please know at any time during the survey if you do NOT wish to continue or decide not to participate you can just close out of the screen.

## Appendix E

### Demographic and Adoption Background Questionnaire (parent-report)

Please tell us about your child between the ages of 11 and 18 years. If you have more than one child in this age range, please first focus on your **oldest adopted child from Eastern Europe** in this age range, and then you can complete similar questionnaires on your other children.

**Child's first name and initial of last name:**

**Child's date of birth:**

**Today's date:**

**Sex of your child**

*{Choose one}*

☐ Male

☐ Female

**Grade in school:**

**Adoptive status**

*{Choose one}*

☐ Adopted

☐ Non-adopted (born in your family) This includes both your own children and your step-children.

**If adopted, from what country?** \_\_\_\_\_

**Does your child have a disability?**

*{Choose one}*

☐ Yes. What type? \_\_\_\_\_

☐ No

**Who is completing the questionnaire?** *{Choose one}*

☐ Mother

☐ Father

☐ Other: \_\_\_\_\_

**How many children between 11 and 18 years currently live in your household?** \_\_\_\_\_

**Marital status**

- ☐ Single
- ☐ Married/Partnered
- ☐ Separated
- ☐ Divorced
- ☐ Widowed

**Your level of education**

*{Choose one}*

- ☐ Partial High School
- ☐ High School
- ☐ Partial college or Associate's Degree
- ☐ Bachelor's Degree
- ☐ Graduate Degree

**Your spouse's (partner's) education (if applicable)**

*{Choose one}*

- ☐ Partial High School
- ☐ High School
- ☐ Partial college or Associate's Degree
- ☐ Bachelor's Degree
- ☐ Graduate Degree

**Your age:**

**Your spouse's (partner's) age (if applicable):**

**Your ethnicity:**

*{Choose all that apply}*

- ☐ European American or White
- ☐ African American or Black
- ☐ Asian American
- ☐ Hispanic
- ☐ Other: \_\_\_\_\_

**Your spouse's (partner's) ethnicity (if applicable):**

*{Choose all that apply}*

- ☐ European American or White
- ☐ African American or Black
- ☐ Asian American
- ☐ Hispanic
- ☐ Other: \_\_\_\_\_

*Questions pertaining to your adopted child*

**What was his/her age at the time of adoption?**

**Years:**

**Months:**

**Place of adoption**

**Country:**

**City:**

**Where did your child live before adoption?**

*{Choose all that apply}*

- ☐ Not sure
- ☐ Orphanage
- ☐ Family/foster care setting
- ☐ Other, specify:

**History of abuse or neglect prior to adoption, if available**

*{Choose all that apply}*

- ☐ Do not know
- ☐ No history of abuse/neglect
- ☐ Neglect
- ☐ Abuse

**Overall, were you satisfied with this adoption during the first years?**

*{Choose one}*

- ☐ Not at All
- ☐ Very Little
- ☐ Somewhat
- ☐ To a Great Extent

**What is your level of satisfaction with this child's adoption now?**

*{Choose one}*

- ☐ Not satisfied at all
- ☐ Very little satisfaction
- ☐ Somewhat satisfied
- ☐ Satisfied to a great extent

**Does your child express interest in his/her adoption?** *{Choose one}*

- ☐ Almost Never
- ☐ Some Interest or Sometimes
- ☐ Interested
- ☐ Very Much Interested

**Some families start talking about adoption with their child early while other families start later. How about your family?** *{Choose one}*

- ☐ We have not talked much about adoption yet
- ☐ We have been talking about adoption since placement
- ☐ We have been talking about adoption with our child from (indicate age):



**Who usually starts talking about adoption in your family?** {Choose one}

- ☐ Usually we don't talk about adoption
- ☐ Usually the parent(s) start(s)
- ☐ Usually the child starts
- ☐ Parent(s) and child start equally often
- ☐ Usually other people start (siblings, friends, peers)

**Did your child ever express the wish that (s)he had not been adopted by you?**

{Choose one}

- ☐ No
- ☐ Rarely
- ☐ Sometimes
- ☐ Very Often
- ☐ Always

**Did your child ever express the wish that (s)he had been born in your family?**

{Choose one}

- ☐ No
- ☐ Yes, at what age:

## Appendix F

### Family Adaptability and Cohesion Evaluation Scales (parent-report)

Describe your family now:

**Family members ask each other for help.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**In solving problems, the children's suggestions are followed.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**We approve of each other's friends.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**Children have a say in their discipline.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**We like to do things with just our immediate family.** *{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**Different persons act as leaders in our family.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**Family members feel closer to other family members than to people outside the family.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**Our family changes its way of handling tasks.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**Family members like to spend free time with each other.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**Parent(s) and children discuss punishment together.**

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**Family members feel very close to each other.**

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**The children make the decisions in our family.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**When our family gets together for activities, everybody is present.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**Rules change in our family.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**We can easily think of things to do together as a family.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**We shift household responsibilities from person to person.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**Family members consult other family members on their decisions.**

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**It is hard to identify the leader(s) in our family.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**Family togetherness is very important.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

**It is hard to tell who does which household chores.**

*{Choose one}*

- ☐ Almost Never
- ☐ Once in Awhile
- ☐ Sometimes
- ☐ Frequently
- ☐ Almost always

## Appendix G

### Adoption Dynamics Questionnaire – ADQ (selected items)

Please, indicate whether you agree or disagree with the following statements:

**I think my parent(s) are happy that they adopted me.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I think of my adoptive parent(s) as my real parent(s).**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I am glad my parent(s) adopted me.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I think my parent(s) would love me more if I were born to them.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I like the fact that I am adopted.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I feel good that I am adopted.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**Being adopted makes me feel loved.**

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I feel proud that my parent(s) adopted me.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**Being adopted makes me feel special.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**Being adopted makes me feel angry.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**It hurts to know I was adopted.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**It bothers me that I may have brothers and sisters I don't know.** *{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I wish I knew more about my medical history.** *{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**How often do you think about your adoption?** *{Choose one}*

- ☐ Never
- ☐ Once in awhile
- ☐ Often
- ☐ Almost Every Day

**How often do you think about your birthparents?** *{Choose one}*

- ☐ Never
- ☐ Once in awhile
- ☐ Often
- ☐ Almost Every Day

**I wish my parent(s) would tell me more about my adoption.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I wish I lived with my birthparents.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I wish I knew more about my birthparents.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I wish I knew what my birthmother looks like.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I wish I know what my birthfather looks like.**

*{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**If possible, would you like to meet your birthparents?** *{Choose one}*

- ☐ Yes, absolutely
- ☐ Not Sure
- ☐ No

**Would you like to meet your birthparents to find out what they look like and who you look like more?** *{Choose one}*

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No



**How often do you have the feeling that you miss or long for your birthparents?** *{Choose one}*

- ☐ Never
- ☐ Once in awhile
- ☐ Often
- ☐ Almost Every Day

**I get teased about being adopted.**

*{Choose one}*

- ☐ Never
- ☐ Once in awhile
- ☐ Often
- ☐ Almost Every Day

**My parent(s) tell me that I should be thankful that they adopted me.**

*{Choose one}*

- ☐ Never
- ☐ Once in awhile
- ☐ Often
- ☐ Almost Every Day

**My parent(s) tell me that they can give me back if they want to.**

*{Choose one}*

- ☐ Never
- ☐ Once in awhile
- ☐ Often
- ☐ Almost Every Day

**I wish people did not know that I was adopted.**

- ☐ Never
- ☐ Once in awhile
- ☐ Often
- ☐ Almost Every Day

**I get tired of having to explain adoption to people.**

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I find it easy to talk about adoption.**

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

**I like to tell people I'm adopted.**

- ☐ Yes, absolutely
- ☐ Sometimes yes, sometimes no
- ☐ No

## Appendix H

### Parental Environment Questionnaire (PEQ): Involvement and Conflict subscales (parent-report)

PLEASE ANSWER EVERY QUESTION even if you are not sure which answer is right for you. **Please, indicate which child you are going to answer these questions for:**

**First name:**

**Last name initial:**

Choose one answer for each item as they apply to your relationship with the child you listed above only.

**This child talks about his/her concerns and experiences with me.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I often criticize this child.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I praise this child when he/she does something well.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I often interrupt this child before he/she can finish saying anything.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I don't know about this child's hobbies.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**This child doesn't want his/her friends to meet me.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I often irritate this child.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**Often there are misunderstandings between this child and me.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I comfort this child when s/he is discouraged or has a disappointment.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**This child treats others with more respect than s/he treats me.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I often hurt this child's feelings. *{Choose one}***

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**This child and I don't have much to talk about when we are together.** *{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I try to keep up with how well this child does in school or on the job.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I do not trust this child to make his/her own decisions.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**This child and I often get into arguments.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**This child prefers not to talk about his/her personal problems with me.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**This child often angers or annoys me.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I often lose my temper with this child.** *{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I sometimes hit this child in anger.** {Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**Once in a while this child has been really scared of me.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I don't seem to know much about how this child is doing in school.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**This child and I do not do a lot of things together.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**This child doesn't seem to feel very close to me.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I don't know much about how this child spends his/her spare time.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

## Appendix I

### Parental Environment Questionnaire (PEQ): Involvement and Conflict subscales (child-report)

PLEASE ANSWER EVERY QUESTION even if you are not sure which answer is right for you. Read each item carefully, and indicate your response as it relates to each parent. If you have only one parent, you will only need to complete it once and skip the second half of this questionnaire.

**Please, indicate which parent you are going to answer these questions for:**

*{Choose one}*

☐ Mom

☐ Dad

Choose one answer for each item as they apply to your relationship with the parent you listed above only.

**I talk about my concerns and my experiences with my parent.**

*{Choose one}*

☐ Definitely True

☐ Probably True

☐ Probably False

☐ Definitely False

**My parent often criticizes me.**

*{Choose one}*

☐ Definitely True

☐ Probably True

☐ Probably False

☐ Definitely False

**My parent praises me when I do something well.** *{Choose one}*

☐ Definitely True

☐ Probably True

☐ Probably False

☐ Definitely False

**Before I finish saying something, my parent often interrupts me.** *{Choose one}*

☐ Definitely True

☐ Probably True

☐ Probably False

☐ Definitely False

**My parent doesn't know much about my hobbies.** *{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I don't want my friends to meet my parent.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**My parent often irritates me.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**Often there are misunderstandings between my parent and myself.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**My parent comforts me when I am discouraged or have had a disappointment.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I treat others with more respect than I treat my parent.**

*{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**My parent often hurts my feelings.** *{Choose one}*

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**My parent and I don't have much to talk about when we are together.** {Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**My parent tries to keep up with how well I do in school and/or in my job.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**My parent often does not trust me to make my own decisions.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**My parent and I often get into arguments.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I prefer not to talk about my personal problems with my parent.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I often seem to anger or annoy my parent.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**My parent often loses his/her temper with me.** {Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False



**My parent sometimes hits me in anger.** {Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**Once in a while I have been really scared of my parent.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**My parent doesn't seem to know much about how I do in school.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**My parent and I do not do a lot of things together.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**I don't feel very close to my parent.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

**My parent doesn't know much about how I spend my spare time.**

{Choose one}

- ☐ Definitely True
- ☐ Probably True
- ☐ Probably False
- ☐ Definitely False

## Appendix J

### Inventory of Parent and Peer Attachment (IPPA)

This set of questions asks about your relationship with your parent(s). Please read the directions carefully. Each of the following statements asks about your feelings about your parents (your mother, or the woman who has acted as your mother, and your father, or the man who has acted as your father). If you do not have a mother or a father figure, you can choose “Does not apply” among the choices for your respective response.

Please read each statement and choose ONE answer for each parent that tells how true the statement is for you now.

#### **My parent respects my feelings.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

#### **I feel my parent does a good job as my parent.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

#### **I wish I had a different parent.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

#### **My parent accepts me as I am.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**I like to get my parent's point of view on things I'm concerned about.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**I feel it's no use letting my feelings show around my parent.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**My parent can tell when I am upset about something.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**Talking over my problems with my parent makes me feel ashamed or foolish.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**My parent expects too much from me.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**I get upset easily around my parent.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**I get upset a lot more than my parent knows about.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**When we discuss things, my parent cares about my point of view.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**My parent trusts my judgment.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**My parent has her/his own problems, so I don't bother her/him with me.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**My parent helps me to understand myself better.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**I tell my parent about my problems and troubles.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**I feel angry with my parent.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**I don't get much attention from my parent.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**My parent helps me to talk about my difficulties.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**My parent understands me.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**When I am angry about something, my parent tries to be understanding.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**I trust my parent.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**My parent doesn't understand what I'm going through these days.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**I can count on my parent when I need to get something off my chest.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

**If my parent knows something is bothering me, s/he asks me about it.**

*{Choose one for **Mother**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

*{Choose one for **Father**}*

- ☐ Almost never or never true
- ☐ Not very often true
- ☐ Sometimes true
- ☐ Often true
- ☐ Almost always or always true
- ☐ Does not apply

## Appendix K

### Child Behavior Checklist – CBCL (selected items)

**Please, list any organizations, clubs, teams, or groups your child belongs to (if none, check None).**

☐ None

**Compared to others of the same age, how active is s/he in each?**

**A:** \_\_\_\_\_

*{Choose one}*

- ☐ Don't Know
- ☐ Less Active
- ☐ Average
- ☐ More Active

**B:** \_\_\_\_\_

*{Choose one}*

- ☐ Don't Know
- ☐ Less Active
- ☐ Average
- ☐ More Active

**C:** \_\_\_\_\_

*{Choose one}*

- ☐ Don't Know
- ☐ Less Active
- ☐ Average
- ☐ More Active

**About how many close friends does your child have? (Do *not* include brothers & sisters)**

*{Choose one}*

- ☐ None
- ☐ 1
- ☐ 2 or 3
- ☐ 4 or more

**About how many times a week does your child do things with any friends outside of regular school hours? (Do *not* include brothers & sisters)**

*{Choose one}*

- ☐ Less than 1
- ☐ 1 or 2
- ☐ 3 or more



**Compared to others of his/her age, how well does your child:**

**a. Get along with his/her brothers & sisters?** *{Choose one}*

- ☐ Worse
- ☐ About Average
- ☐ Better
- ☐ Has no brothers or sisters

**b. Get along with other kids?** *{Choose one}*

- ☐ Worse
- ☐ About Average
- ☐ Better

**c. Behave with his/her parents?** *{Choose one}*

- ☐ Worse
- ☐ About Average
- ☐ Better

**d. Play and work alone?** *{Choose one}*

- ☐ Worse
- ☐ About Average
- ☐ Better

**Performance in academic subjects**

**If your child does not attend school, please indicate the reason:**

---

**Check a box for each subject that child takes**

**a. Reading, English, or Language Arts**

*{Choose one}*

- ☐ Failing
- ☐ Below Average
- ☐ Average
- ☐ Above Average

**b. History or Social Studies**

*{Choose one}*

- ☐ Failing
- ☐ Below Average
- ☐ Average
- ☐ Above Average

**c. Arithmetic or Math**

*{Choose one}*

- ☐ Failing
- ☐ Below Average
- ☐ Average
- ☐ Above Average

**d. Science**

*{Choose one}*

- ☐ Failing
- ☐ Below Average
- ☐ Average
- ☐ Above Average

**Other academic subjects – for example: computer courses, foreign languages, business. Don *not* include gym, shop, driver's ed., etc.**

**e.** \_\_\_\_\_

*{Choose one}*

- ☐ Failing
- ☐ Below Average
- ☐ Average
- ☐ Above Average

**f.** \_\_\_\_\_

*{Choose one}*

- ☐ Failing
- ☐ Below Average
- ☐ Average
- ☐ Above Average

**g.** \_\_\_\_\_

*{Choose one}*

- ☐ Failing
- ☐ Below Average
- ☐ Average
- ☐ Above Average

**Does your child receive special remedial services or attend a special class or special school?**

*{Choose one}*

- ☐ No
- ☐ Yes – kind of service, class, or school:

**Has your child repeated any grades?**

*{Choose one}*

- ☐ No
- ☐ Yes – grades and reasons:

**Has your child had any academic or other problems in school?**

*{Choose one}*

- ☐ No
- ☐ Yes – please describe:

**When did these problems start?** \_\_\_\_\_

**Have these problems ended?**

*{Choose one}*

- ☐ No
- ☐ Yes – when? \_\_\_\_\_

**Below is the list of items that describe children and youth. For each item that describes your child *now or within the past 6 months*, please choose how true it is for your child. Please answer all items as well as you can, even if some do not seem to apply to your child.**

**0 = Not True (as far as you know)**

**1 = Somewhat or Sometimes True**

**2 = Very True or Often True**

1. Acts too young for his/her age
  2. Argues a lot
  3. Bragging, boasting
  4. Can't concentrate, can't pay attention for long
  5. Can't sit still, restless, or hyperactive
  6. Clings to adults or too dependent
  7. Complaints of loneliness
  8. Confused or seems to be in a fog
  9. Cries a lot
  10. Cruelty, bullying, or meanness to others
  11. Day-dreams or gets lost in his/her thoughts
  12. Demands a lot of attention
  13. Destroys his/her own things
  14. Destroys things belonging to his/her family or others
  15. Disobedient at home
  16. Disobedient at school
  17. Doesn't get along with other kids
  18. Doesn't seem to feel guilty after misbehaving
  19. Easily jealous
  20. Fears he/she might think or do something bad
  21. Feels he/she has to be perfect
  22. Feels or complaints that no one loves him/her
  23. Feels others are out to get him/her
  24. Feels worthless or inferior
  25. Gets in many fights
  26. Gets teased a lot
  27. Hangs around with others who get in trouble
  28. Impulsive or acts without thinking
  29. Would rather be alone than with others
  30. Lying or cheating
  31. Nervous, highstrung, or tense
  32. Nervous movements or twitching (describe):
- 
33. Not liked by other kids
  34. Too fearful or anxious
  35. Feels dizzy
  36. Feels too guilty

- 37. Overtired
- 38. Overweight
- 39. Physical problems **without known medical cause:**
  - a. Aches or pains (**not** stomach or headaches)
  - b. Headaches
  - c. Nausea, feels sick
  - d. Problems with eyes (**not** if corrected with glasses), describe:  
\_\_\_\_\_
  - e. Rashes or other skin problems
  - f. Stomachaches or cramps
  - g. Vomiting, throwing up
- 40. Physically attacks people
- 41. Poor school work
- 42. Poor coordinated or clumsy
- 43. Prefers being with older kids
- 44. Prefers being with younger kids
- 45. Refuses to talk
- 46. Runs away from home
- 47. Screams a lot
- 48. Secretive, keeps things to self
- 49. Self-conscious or easily embarrassed
- 50. Sets fires
- 51. Showing off or clowning
- 52. Shy or timid
- 53. Stares blankly
- 54. Steals at home
- 55. Steals outside the home
- 56. Stubborn, sullen, or irritable
- 57. Sudden changes in mood or feelings
- 58. Sulks a lot
- 59. Suspicious
- 60. Swearing or obscene language
- 61. Talks too much
- 62. Teases a lot
- 63. Temper tantrums or hot temper
- 64. Thinks about sex too much
- 65. Threatens people
- 66. Truancy, skips school
- 67. Underactive, slow moving, or lacks energy
- 68. Unhappy, sad, or depressed
- 69. Unusually loud
- 70. Uses alcohol or drugs for nonmedical purposes (describe): \_\_\_\_\_
- 71. Vandalism
- 72. Withdrawn, doesn't get involved with others
- 73. Worries

## Appendix L

### Youth Self-Report – YSR (selected items)

**Your first name and last name's initial:**

**Your date of birth:**

**Today's date:**

**Your sex**

*{Choose one}*

☐ Boy

☐ Girl

**Grade in school:**

**Adoptive status**

*{Choose one}*

☐ Adopted

☐ Non-adopted

**Please, list any organizations, clubs, teams, or groups you belong to (if none, check None).**

☐ None

**Compared to others of your age, how active are you in each?**

**A:** \_\_\_\_\_

*{Choose one}*

☐ Less Active

☐ Average

☐ More Active

**B:** \_\_\_\_\_

*{Choose one}*

☐ Less Active

☐ Average

☐ More Active

**C:** \_\_\_\_\_

*{Choose one}*

☐ Less Active

☐ Average

☐ More Active

**About how many close friends do you have? (Do *not* include brothers & sisters) {Choose one}**

- ☐ None
- ☐ 1
- ☐ 2 or 3
- ☐ 4 or more

**About how many times a week do you do things with any friends outside of regular school hours? (Do *not* include brothers & sisters)**

*{Choose one}*

- ☐ Less than 1
- ☐ 1 or 2
- ☐ 3 or more

**Compared to others of your age, how well do you:**

**a. Get along with your brothers & sisters?**

*{Choose one}*

- ☐ Worse
- ☐ About the same
- ☐ Better
- ☐ I have no brothers or sisters

**b. Get along with other kids?**

*{Choose one}*

- ☐ Worse
- ☐ About the same
- ☐ Better

**c. Get along with your parents?**

*{Choose one}*

- ☐ Worse
- ☐ About the same
- ☐ Better

**d. Do things by yourself?**

*{Choose one}*

- ☐ Worse
- ☐ About the same
- ☐ Better

**Below is the list of items that describe kids. For each item that describes you *now or within the past 6 months*, please choose how true it is for you.**

**0 = Not True**

**1 = Somewhat or Sometimes True**

**2 = Very True or Often True**

1. I act too young for my age
2. I argue a lot
3. I act like the opposite sex
4. I like animals
5. I brag

6. I have trouble concentrating or paying attention
7. I have trouble sitting still
8. I am too dependent on adults
9. I feel lonely
10. I feel confused or in a fog
11. I cry a lot
12. I am pretty honest
13. I am mean to others
14. I daydream a lot
15. I deliberately try to hurt or kill myself
16. I try to get a lot of attention
17. I destroy my own things
18. I destroy things belonging to others
19. I disobey at school
20. I don't get along with other kids
21. I don't feel guilty after doing something I shouldn't
22. I am jealous of others
23. I am willing to help others when they need help
24. I am afraid I might think or do something bad
25. I feel I have to be perfect
26. I feel that no one loves me
27. I feel that others are out to get me
28. I feel worthless or inferior
29. I get in many fights
30. I get teased a lot
31. I hang around with kids who get in trouble
32. I act without stopping to think
33. I would rather be alone than with others
34. I lie or cheat
35. I am nervous or tense
36. I am not liked by other kids
37. I can do certain things better than most kids
38. I am too fearful or anxious
39. I feel dizzy
40. I feel too guilty
41. I feel overtired
42. Physical problems without known medical cause:
  - a. Aches or pains (**not** headaches)
  - b. Headaches
  - c. Nausea, feels sick
  - d. Problems with eyes (describe):

---
  - e. Rashes or other skin problems
  - f. Stomachaches or cramps
  - g. Vomiting, throwing up
43. I physically attack people

- 44. I can be pretty friendly
  - 45. I like to try new things
  - 46. My school work is poor
  - 47. I am poorly coordinated or clumsy
  - 48. I would rather be with older kids than with kids my own age
  - 49. I would rather be with younger kids than with kids my own age
  - 50. I refuse to talk
  - 51. I run away from home
  - 52. I screams a lot
  - 53. I am secretive or keep things to myself
  - 54. I am self-conscious or easily embarrassed
  - 55. I set fires
  - 56. I can work well with my hands
  - 57. I show off or clown
  - 58. I am shy
  - 59. I have good imagination
  - 60. I have speech problems (describe):
- 

- 61. I stand up for my rights
  - 62. I steal at home
  - 63. I steal from places other than home
  - 64. I am stubborn
  - 65. My moods or feelings change suddenly
  - 66. I enjoy being with other people
  - 67. I am suspicious
  - 68. I swear or use dirty language
  - 69. I think about killing myself
  - 70. I like to make others laugh
  - 71. I talk too much
  - 72. I tease others a lot
  - 73. I have a hot temper
  - 74. I threaten to hurt people
  - 75. I like to help others
  - 76. I cut classes or skip school
  - 77. I don't have much energy
  - 78. I am unhappy, sad, or depressed
  - 79. I am louder than other kids
  - 80. I use alcohol or drugs for nonmedical purposes (describe):
- 

- 81. I try to be fair to others
- 82. I enjoy a good joke
- 83. I like to take life easy
- 84. I try to help other people when I can
- 85. I wish I were of the opposite sex
- 86. I keep from getting involved with others
- 87. I worry a lot



## Vita

Maria Ivanovna Kuznetsova was born on July 9, 1977, in Syktyvkar, Russia, and is a citizen of Russian Federation. She graduated from McKenzie High School, Tennessee in 1995. She received her Bachelor of Arts in Economics from Syktyvkar State University, Russia in 2000, and subsequently was involved in placement of children from Russian orphanages into American homes. She received a Master of Science in Clinical Psychology from University of South Carolina – Aiken in 2005.