News from the University of Minnesota

International Adoption Project

Spring 2010

Greetings from Professor Gunnar

We are sending you this newsletter as a way of thanking you for participating in research with the Minnesota International Adoption Project (MnIAP). This newsletter is being sent to all families of internationally adopted children who have participated in our research and/or are on our participant registry. It is also being sent to all the parents who have participated in our research with their children who were born and raised in Minnesota. We want to thank you all for giving your time so generously to this work.

In 2002, the MnIAP began working to obtain grant funds to study the brain and behavioral development of children adopted internationally. Because early deprivation can impact brain development, we were especially interested in finding information that would help improve outcomes for children adopted from orphanages or other institutions. However, we also know that children who are from minority ethnic groups have challenges in adapting in the U.S., as they may experience discrimination. For this reason, our colleague Professor Richard Lee is devoting considerable efforts to understand how parents can help support their internationally adopted children who are ethnic/racial minorities in this country.

We are happy to report that the federal government, through the National Institute of Mental Health (NIMH), continues to provide financial support for MnIAP research. But it is the families and children who allow this work to continue. Thank you again for your help and on-going support.

~ Regents Professor Megan Gunnar & the Minnesota International Adoption Project Team

Inside this issue:

State of the Children Report – New Arrival Study 2010

Since the inception of the MnIAP, we have been tracking the changing face of international adoption in Minnesota and the health of new arrivals by asking all of the parents who join our registry to complete a survey about their child soon after the child's arrival. This survey covers pre-adoption history and post-adoption health. We call this survey our "state of the children" report. In this newsletter, we will report data from 736 parents surveyed between 2006 and 2009. We also included data from the last time we analyzed the survey in 2005 for comparison purposes.

Who are the parents?

Parent education level, income, and ethnicity have remained stable over time. Around 80% of parents in the New Arrival Study were college graduates, with 40% having completed advanced (master/professional or doctorate) degrees. A majority of parents fall in the upper income level (74% making more than $76,000 per year), are Caucasian (95%), and are married (88%). About 75% of surveys returned were from families living in Minnesota. These results do not differ substantially by year surveyed.

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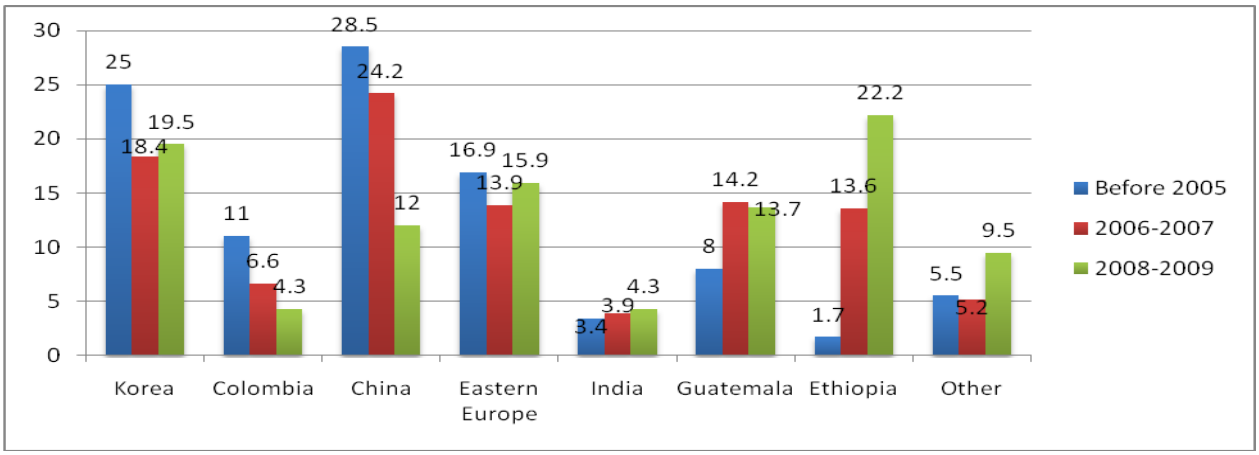
Who are the children?

We are seeing major shifts in where the children are coming from, which are consistent with what has been happening nationwide (see *Figure 1*). Rates of adoption from Korea as still fairly high, as are rates from Eastern Europe (including Russia). But rates from other countries have been changing. It is probably no surprise to families who have been trying to adopt a child from China that the rates have dropped precipitously. On the other hand, Ethiopian programs have opened up and in the most recent years of our survey, the largest percentage of children were from Ethiopia. Notably, if we add up the percentages from countries where the adopted child will be a minority child in the U.S., the majority of adoptions into Minnesota (as reflected by families on our registry) are of children who will need to deal with being both an adopted child and a child of color in the U.S. This is why we are particularly happy that Richard Lee (*see page 12*) is contributing research on factors that help these children adapt.

Figure 1. (Reported in percentages of families who completed the New Arrival Study)

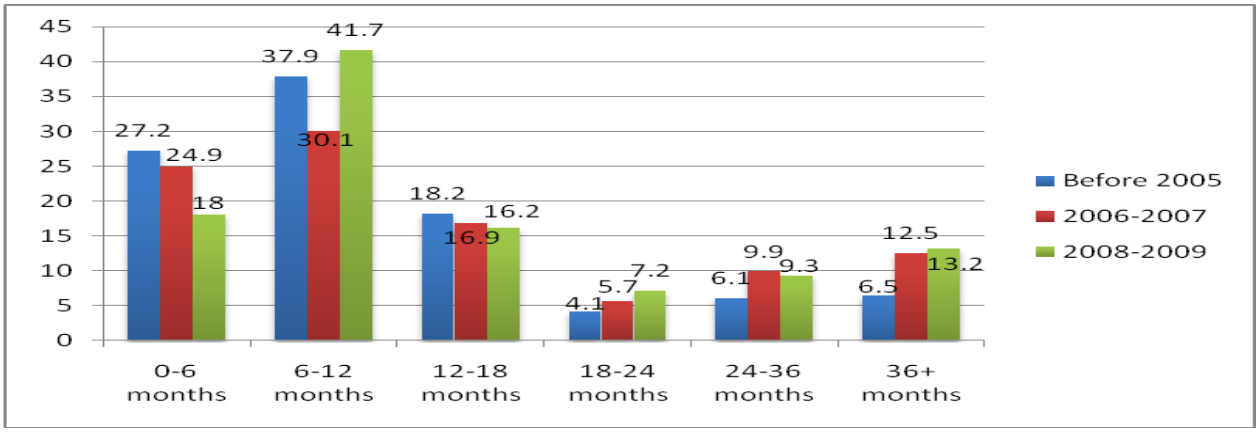


How old were children at placement?

We are seeing changes in the ages of children at adoption. Overall, the trend is towards being older at adoption. We see fewer children reaching their families in the first six months of life when adaptation is the easiest, and more reaching their families at 18 months or older (now about one-third of the children, compared to about one-fifth of the children a few years ago). Being 18 months or older at adoption presents additional "transition" challenges to parents and children, which is why we instituted our study of Transition into the Family Study *(see page 5)* by targeting children who were 18 to 36 months old at arrival.

It is still the case, though, that the most frequent age at adoption is between 6 and 12 months, with about 70% adopted by 18 months (see *Figure 2*). Studies of internationally adopted children indicate that unless the pre-adoption circumstances have been severely depriving, adoption by 18 months tends to be associated with good outcomes for children.

Figure 2. (reported in percentages of children in the New Arrival Study)



How many children spent time in orphanages?

Overall, 68% of the children in the study spent at least some time in institutional care (orphanage, hospital, or baby home) before adoption. This has dropped slightly from the 73% we reported last time. This likely reflects the attempts by a number of governments to establish foster or other family type living arrangements for children who do not have permanent parents. When examined by country, most countries still continue with the type of care that was prevalent prior to 2005; however, parents of children adopted from China in 2008 and 2009 are reporting that their children were less likely to be in institutional care and more likely to be in foster care prior to adoption as compared to previous years (see *Figure 3*). In Ethiopia, all of the children were adopted from institutional care, but many of the adoptions take place after a relatively short amount of time in care (3 to 6 months).

There are now several experimental studies of improving institutional care showing that when institutions support the social (attachment) and cognitive stimulation needs of young children, spending brief times in institutional care can support children's development, especially if the children have experienced harsher conditions prior to entering the institution. Nevertheless, supportive care within a family setting is the best option for infants and young children.

How was the quality of care before adoption?

Overall, 32% of parents surveyed thought their children received special attention from adults before adoption; while 30% of parents were unsure about the level of attention given to their child. Since 2008, 50% of parents reported a child-to-caregiver ratio of less than 7:1. This is up from 35% in 2005. Fifty percent of children had two living situations or less before adoption. This has dropped from 82% in 2005. Thus, while the children tend to be a bit older at adoption now, from what parents are told, they have experienced somewhat better care prior to reaching their families than was the case in the past.

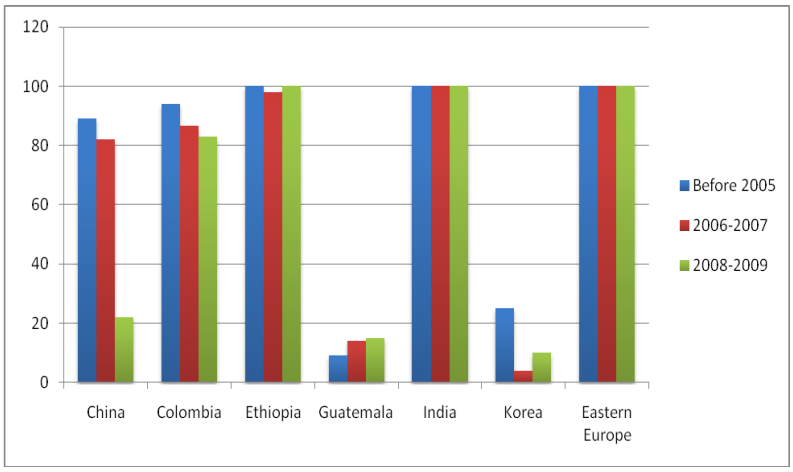
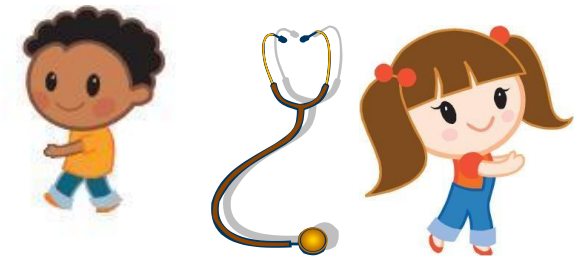


Figure 3. The graph above reflects the percentage of children from each country who spent time in institutional care prior to adoption.

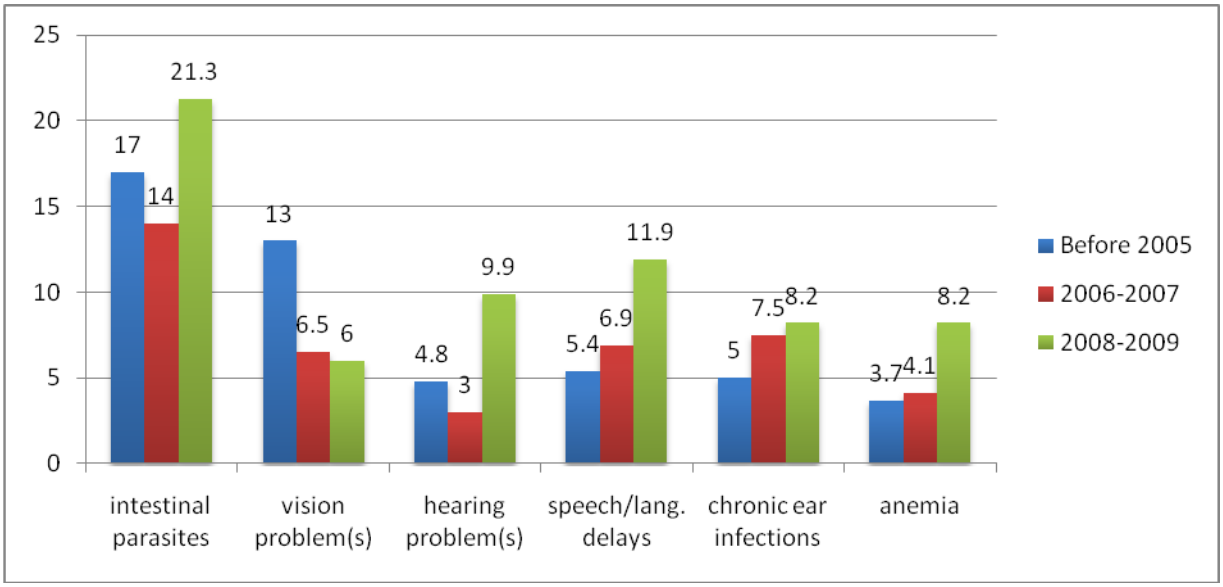


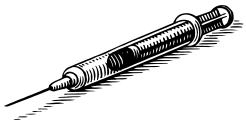
Are the children healthy at arrival?

The New Arrival Study indicated that most children are healthy at arrival, with only 19% of them needing extra health care treatment. This is slightly up from 14% we reported in 2005. In 2005, the most-reported health problems were intestinal parasites (17%), vision problems (13%), hearing problems (4.8%), and speech and language delays (5.4%). Since 2008, the most reported health problems were intestinal parasites (21.3%), hearing problems (9.9%), chronic ear infections (8.2%), anemia (8.5%) and speech and language delays (11.9%) (see *Figure 4*). The increase in health issues in our most recent survey likely reflects changes in policies by countries permitting international adoption. In some countries, these policies have placed increase requirements and delays on international adoption of healthy children and an easing of policies for adoption of children with special medical needs. Because of these shifts in the health of the children available for adoption, the MnIAP is particularly glad to be partnered with the University of Minnesota's International Adoption Medical Health Program.

State of Children continued on next page

Figure 4. The graph below compares percentage reports of health problems from 2005 and 2008.





Are children receiving all needed tests at their first U. S. medical visit?

In 2005, one concern revealed in the New Arrival Study was that children were not getting all the tests they should have at their first U. S. medical exam. But in 2008, the New Arrival Study found that 59% of internationally adopted children received all the needed tests, a 19% improvement from 2005. This increase likely reflects the work of our partners in the International Adoption Medical Health Program in disseminating information to medical practitioners about the health checks needed upon arrival for children coming from different parts of the world.

Conclusions

The New Arrival Study is an ongoing project. Parents who adopted children internationally within the last year and are on our registry will mostly likely be called about this study. If you know parents who have adopted and would be interested in this research please encourage them to join our registry. We can be reached at 612-624-9322 or at IAP@umn.edu. We will continue conducting this study and updating you on our findings in upcoming yearly newsletters.

Thanks very much to all the parents who participated!

Join the IAP registry! Get involved!

The IAP registry was established in 2002 to encourage researchers to write more grants and conduct research regarding issues of concern to families who had adopted internationally. More than 4000 children have been registered to participate in future adoption research. It is important that we continue to gather families who have recently welcomed home a child so that our registry represents the current international adoption community.

If you know any family whose child has just come home or has yet to join our registry, we would appreciate your making them aware of this registry. The families do not have to live in Minnesota, nor do they have to have adopted in Minnesota in order to be included in this registry. Any family with a child up to the age of 18 is welcome.

To learn more about this registry, please contact us at 612-624-9322 or email us at IAP@umn.edu Families can also now join the IAP registry online at http://www.education.umn.edu/icd/IAP/enroll.htm

Transition into the Family Study

The Transition into the Family Study began in August 2008. In the last year and a half, 77 families have joined the study. Our ultimate goal is to enroll 150 children adopted internationally. This research study seeks to examine young children's adaptation and development following international adoption from institutional care. A group of children born into their families here in Minnesota are also participating to help guide us in examining the recovery of children adopted from orphanages abroad. Families attend research sessions in which the child is observed playing with the parent, interacting with unfamiliar adults, and reacting to new and stimulating toys. We also measure heart rate and teach parents to collect their children's saliva to assess cortisol (see story on page 6). Parents also complete phone interviews and questionnaires. Children who were adopted begin the study soon after arrival into their families, and all study participants repeat these sessions and tasks every 8 months or so in order for us to see how the children's adjustments occur during the first two years after adoption. We have just begun to see the first enrolled families for their third session visit.

Study participants range in age at their first research session visit from 18 to 36 months. Of 77 participants already in the study, 49 are children who were adopted internationally and 28 were born into their Minnesota families. Our current internationally adopted group of children represents several countries: China (14), Ethiopia (8), Guatemala (1), Haiti (2), India (3), Philippines (2), Russia (15), Thailand (1), Ukraine (1), and Vietnam (2). Children's age at placement into an institution abroad ranges from birth to 27 months with length of institutional care ranging from 5 to 33 months, and 69% of internationally adopted children experienced between 2 to 4 care transitions or settings prior to adoption.

Although this study is in its early stages, we have only very preliminary results to share. One of the things we are interested in is whether temperamental variations in wariness influence adjustment to the many novel experiences that adoption brings. Children who are born and raised in their families naturally vary in two kinds of wariness: wariness of new people and wariness of loud or strange objects. Most often, these two types of wariness are only slightly related; thus a child may be wary of new people, but bold with loud/highly stimulating objects and vice versa. We are finding that this is true both for the children in our study who were born and raised in Minnesota, and those who were adopted internationally.

We are also seeing big individual differences in both groups in wariness of objects. Some children in both groups laugh and race to pick up our oddly-dressed remote controlled "creatures," while others display wariness or fear. On average, at the first and second visit the adopted children are a bit more hesitant than the non-adopted children, and the adopted children are not (so far) showing as much reduction in wariness as they get more familiar with these weird toys on their second visit. But the group differences pale in comparison to the individual differences within each group. What we know from studies of non-adopted children is that there are pluses and minuses to being either extremely bold or extremely wary of new objects and experiences; certainly children with these different temperaments create different parenting challenges. This is why it is unwise to think that one type of parenting advice for adoptive parents will fit all adopted children and their families. We hope that by the time our study is complete, we will be able to give more helpful and specific advice to adoptive parents based on children's temperaments.

Transition continue on next page

Social wariness does seem to differ more between the two groups of children in the transition study. Perhaps because they have been cared for by many different adults, children adopted from institutions seem less wary of adult strangers than do children raised in their families in Minnesota. In the extreme, a lack of wariness of strangers can merge into what has been called "indiscriminate friendliness." Sometimes, when this behavior is excessive (i.e. includes wandering off and being willing to go off with 'nice strangers' without checking with the parent), it leads to the child being diagnosed as having an attachment disorder. Along with other researchers who have been studying attachment and indiscriminate friendliness, we suspect that this behavior isn't related to how attached children become to their adoptive parents. We will be tracking both the children's use of their parents as attachment or security figures and their interest in making contact with unfamiliar adults (our experimenters) across our sessions to see if we are right or not.

Please note that with only 49 of the (hopefully) 150 internationally adopted children in our study so far, any results we have at this point should be viewed as very tentative. Adoption rates have shown a recent decline and so our study is progressing a bit slower than we had originally hoped. We have expanded our recruitment of families beyond the International Adoption Medicine Program and are now working directly with several adoption agencies to attempt to enroll more participants. We are also enrolling families at approximately 8 months post-adoption directly from our own registry of internationally adopted children. We are still only enrolling approximately one or two new families per month. It would help if we could enroll more.

If you know of a family who will be adopting or has recently adopted an 18-to-36 month-old child from institutional care abroad, please let them know of this study and encourage them to contact us at 612-624-9322 or by email at IAP@umn.edu

Daily Patterns of Stress Hormone Production in New Arrivals Predict Delays in Social Development

This study is part of a longitudinal study of physical growth in internationally adopted children who have arrived recently from Russia and Eastern Europe. The growth study is being done by the International Adoption Medicine Program under the guidance of Dr. Maria Kroupina and in collaboration with Drs. Anna Petryk, Brad Miller, Dana Johnson, Sandy Iverson of the Department of Pediatrics, Dr. John Himes of Epidemiology, and Dr. Megan Gunnar of the Institute of Child Development. Some of the children in the growth study have also been helping in a study of the relations between the development of social competence and the activity of the "stress sensitive" hormone, cortisol. Cortisol promotes healthy development when it is in its basal or non-stress mode, and supports adaptation to overwhelming demands on body and mind when it is in its stress mode. However, previous work by the MnIAP has shown that institutional care produces a "stress signature" to the everyday or basal rhythm of this

hormone that is seen when children arrive in their families.

Dr. Kroupina has been examining this hormone's basal daily rhythm. She has done this by having parents collect saliva samples that are then analyzed for this hormone at several points during the day on several days at home. She has found that the cortisol daily rhythm is disrupted in newly arrived children who have spent long periods in orphanage or institutional care before adoption.

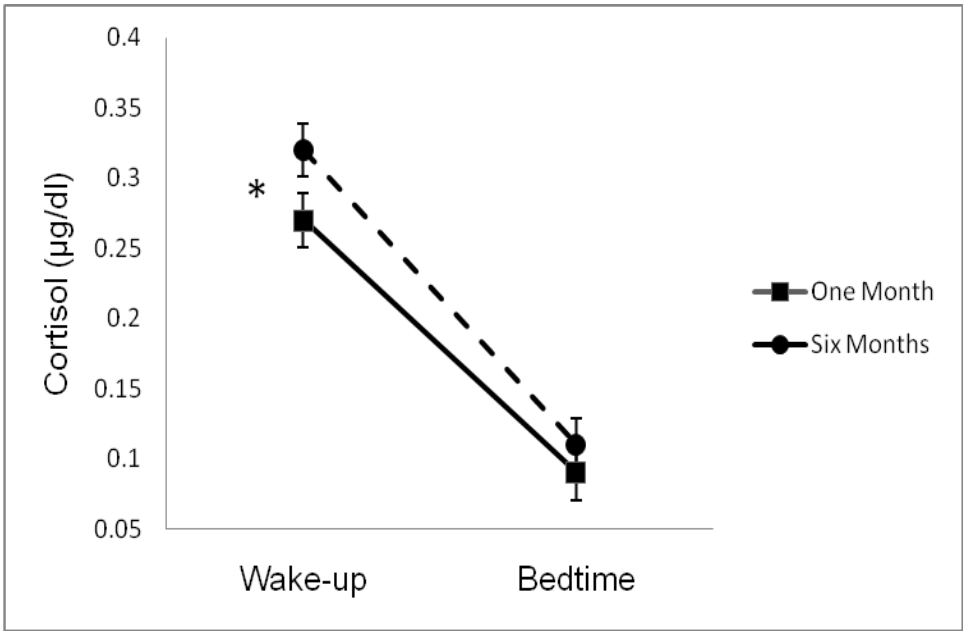
The pattern of disruption she finds is similar to that produced in animal studies when the animal is placed under chronic stress. Rather than showing peaks in activity around the time of awakening, which promotes interest in engaging the environment, levels are extremely low for many newly arrived children. The more typical daily pattern begins to emerge by the time the children have been with their families for six months, although it has not completely normalized yet (*see figure 1*). Dr. Kroupina's findings suggest that patterns of cortisol production over the day may serve as a biological marker of the degree of chronic stress the children were under prior to adoption.

If this is true, and if this hormone under basal conditions promotes engagement with the environment, we might expect that those children whose cortisol production shows a larger signature of chronic stress would also be less engaged with their social world and thus more delayed in their development. Dr. Kroupina examined this idea by collecting information on the children's social competence with parents over the first six months in the adoptive home. She found that those children whose cortisol system showed a larger signature of chronic stress were less engaged and less socially competent than children whose cortisol system showed a smaller (or no signature) of chronic stress.

These results are exciting as they provide insight into ways that early adverse experiences get "under the skin" to affect children's development, and they may ultimately serve to help parents and practitioners identify children who may need extra help in adapting to their families and new lives. Because this is an important new lead, the Transition into the Family Study (see page 5) is also asking parents to collect saliva samples to measure the cortisol daily rhythm on their children as the children adapt to their new homes. This will allow the MnIAP to determine if Dr. Kroupina's findings are repeatable using the more extensive set of measures of social development being collected in the Transition into the Family Study.

Cortisol promotes healthy development when it is in its basal or non-stress mode, and supports adaption to overwhelming demands on body and mind when it is in its stress mode.

Figure 1.
Wake-up and bedtime cortisol values at one month and six months post adoption.



The 5-year-old Study

Children in this study either participated in the Social Communication Study beginning at age 18 months, or were recruited especially for the 5 year time point of this study. The children who entered the study at 18 months were also seen at three years.

There is increasing evidence that many post-institutionalized children have difficulty managing the demands of controlling one's attentional focus, sitting still, and attending to the types of activities common in school. In this study, we are now focusing on factors affecting "attention regulation" in children adopted from institutions.

Results from 5 year time point:

When the children came to the university we had them play two "attention regulation" games. One, called the "*Flanker Task*" asked them to pay attention *only* to an object in the middle of the computer screen and ignore the objects that were flanking it. The object in the middle of the screen changed color and the child's job was simply to press the button that corresponded to the object's color. There were only two colors (green or red). Flanking the object were either objects of the same color (the easy condition) or objects of the other color (the hard condition).

The other game was *"Go-No-Go"*, a game that is a bit like Simon Says or Red Light/Green Light. In the Go-No-Go game, the child saw animal pictures appearing one at a time on the computer screen. The task was to press a button every time an animal appeared, *except* for the monkey. Because there are many more other animals than there were monkeys in the game, it is hard to stop or inhibit the pressing response when the monkey appears unless you are paying really close attention to the game.

Results: Many children adopted from institutions (PI children) do quite well on both of these games. However, those who had been adopted later from institutional care (after 18 months) had more difficulty ignoring the flanking colors and not pressing when the monkey appeared. The later adopted children also played both games more slowly, suggesting that it was taking them more time to process the information on the screen and "tell" their fingers whether or not to push the button. The children adopted before 18 months performed just like the children in our study who were born and raised in their families in Minnesota.

Understanding Other's Thoughts and Emotions

Parents and teachers report that children adopted later from institutional care sometimes struggle in their social relationships with other children. We have been examining whether some of the building blocks of social interaction may be delayed for children adopted from institutions. To examine these building blocks we asked children to play a game in which they were shown a box that looked like it contained Cheerios. However, when they opened it, they discovered it contained crayons. Then they were asked what a doll who had not "seen" them open the box thought was in the box. Very young children think that because *they* know what is in the box the doll will too, but around age four children typically realize that because the doll didn't "see" what was inside the box, the doll would think it contained Cheerios. So by about age four children begin to understand that different people can think different things because they have access to different information. Understanding this can help reduce arguments with others because the child realizes that just because *they* believe or know something, this doesn't mean the person they are playing with knows the same things.

The other game we asked them to play examined whether the child understood that people sometimes do not feel the way they look. That is, sometimes people try to hide or

change their facial expressions. By about age five, children begin to get a rudimentary understanding that facial expressions of emotions do not always provide valid insights into what people are actually feeling. Gaining this kind of complex social reasoning is what allows children to begin to understand that "Johnny is acting angry, because he is really sort of scared" or "Susie is acting mean, but I think she is really feeling sad." It is also part of the skill set that enable children to notice when emotions look fake…for example, a fake smile is one that does not involve the eyes. Human social interactions are incredibly complex, and get more complex as children move towards adolescence. Understanding the difference between emotional displays and inner emotions is a very helpful building block in negotiating the complexity of social relationships.

On these two tasks we found that children adopted before 18 months performed at the same developmental level as children who were born and raised in their families in Minnesota. However, on both tasks, children adopted from institutions beyond 18 months lagged behind. Of course, both tasks required more sophisticated language abilities. To be sure that we were not just detecting differences in linguistic competence, we also assessed language abilities. The children adopted after 18 months from institutional care were delayed in their language development, but even controlling for language ability in our analyses the effects of prolonged institutional care were still apparent.

Can We Identify Children Early Who May Need Additional Help?

Although the later-adopted children were more likely to be delayed on these tasks, not all of them lagged behind, and certainly there was also a range of performance for the children adopted earlier. One of the things we examined at 18 months for the children who were in the study from that age onward, was the child's interest in sharing positive experiences with the experimenter during a task called "joint attention." At 18 months, those children adopted from institutions who engaged in more positive emotional sharing during the joint attention task were more advanced at age 5 in our social and emotional understanding tasks.

What the children were showing us at 18 months, soon after adoption, was that when they found something interesting they wanted to draw other's attention to that interesting thing. They wanted to "share" what was on their minds for no other reason than to just be sociable. This interest in sharing their thoughts and feelings encourages language development and also sets children up to notice when what they think ("that piece of goo is really interesting") is different from their parents' thinking ("yikes, don't touch that - it's yucky!"). Child development researchers think that it is these kinds of experiences that begin to inform children that not everyone feels and thinks and knows exactly the same things. In other words, they form the early building blocks of complex social awareness.

We had also examined children's abilities to understand simple emotions and the situations that elicit them when we tested them at 3 years of age. Not surprisingly, the children who scored higher on these tasks were more advanced on our social and emotional understanding tasks at 5 years.

Completion of the study:

We are just wrapping up our final sessions from this study. We have only begun to explore the large amount of data available from this longitudinal project. Stay tuned for more results from this study in future editions of the newsletter.

Thanks so much to the families and children who participated in this study!

-The Social Communication Team (Kristen Wiik, Kristin Frenn, Adriana Herrera, Amanda Tarrulo, & Melissa Chatham Garvin)

Human interactions are incredibly complex, and get more complex as children move towards adolescence.

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IAP Parent Board

Thanks to the IAP Parent Board for their continuing input and support of our research projects.

Patti Bower

Kate Brady

David Casey

Jamalee Desmond

Amy Kusber

Cari Lee

Marc Markell

Kate Swensen

★★★★★★★★★

Transition to Adolescence

Much of our MnIAP work has involved young children as they transition into the family and begin to approach entering formal schooling; however, we know that adolescence is a challenging time for adopted children, as it is for children who are born and raised in their birth families. Thus, we also have several studies focused on children who are making the transition to adolescence.

Gene and Resilience Study

Children adopted from depriving situations often are quite developmentally delayed at adoption, but show remarkable capacities for recovery in their adoptive homes. Nonetheless, every study of post-adoption recovery reveals that some children are quite resilient and recover rapidly, while others continue to struggle years after adoption. Among the many processes that facilitate and constrain resilience, substances produced in the brain that protect neurons and support brain growth and repair likely are involved. One of these substances is called brain-derived neurotrophic factor or BDNF.

The MnIAP is conducting a study on BDNF by examining whether variations in the gene that codes for this substance helps explain some of the variations in resilience in post-institutionalized children. Our study is being done in collaboration with Professor Kathleen Thomas at the University of Minnesota as well as colleagues in New York. It consists of two phases. In Phase I, parents of children ages 8 to 13 years complete a questionnaire on their children's behavior and the children provide saliva samples from which we determine which versions of the BDNF gene the child has inherited. In Phase II, when the children are 12 to 14 years old, some of the children are asked to come in for a brain scan. During the scan we measure the size of brain structures involved in emotional learning and the activity of these brain regions when the children complete different learning tasks. We currently have 384 children who have completed Phase I and 73 children who have completed Phase II. By the time we are done, we hope to have 250 children who have completed Phase II. So, you can see we have a long way to go.

At this point, we can only report very preliminary findings. Studies of individuals from Southeast Asia have shown that the distribution of the BDNF gene variations differs in Southeast Asia from the distribution in Europe. So far, our findings confirm this. The children adopted from Southeast Asia have a pattern of genetic variation in this gene that is quite different from the pattern seen in children from Russia and Eastern Europe. The children from Russia and Eastern Europe fit the pattern previously reported among adults of European heritage. Interestingly, children from India and Latin America have patterns that "fit" the European distribution of this genetic variant. These differences likely reflect differences in the histories of migration of people who populated Southeast Asia from those who populated other parts of the world. Geneticists know that how a gene functions depends on the other genes a person carries and there can be major population differences in the behavioral associations of the same gene variation. The fact that our Southeast Asian children show a markedly different pattern of variation is going to complicate how we analyze our findings; we will need to consider the very great likelihood that this genetic variant will have different behavioral and brain correlates for Southeast Asian children than for children from other regions of the world.

We are just beginning to process the brain scan data, and it is far too early to know what we are going to see. The good news is that the children are being amazingly helpful by staying very still in the scanner. We have good (non-wiggly) data on most of them. The children have also been very good about performing all of the computer learning tasks. We are terrifically grateful for all their hard work and for the parents who have been willing to come in for two long sessions.

We are still recruiting families into this study, so if you know a family who is not on our registry who has a child adopted from an institution who is currently between 9 and 12 years of age, please encourage them to contact us. If you have a child on our registry who you think fits the study's requirements and we haven't called you yet, we would be happy to have you call us as well.

For more information on the BDNF Study please contact Nancy Ward at 612-626-8949.

Changes in Risk-Taking and Emotionality with Adolescence

This is the second study we are conducting on children transitioning into adolescence.

Previous work by other groups has shown that there are many changes that happen to the brain as children move through puberty. For example, brain systems that find reward in risky activities become more active, while brain systems that support self control are still developing. The result is that during this period of development, adolescents may find it difficult to stop themselves from trying out risky-but-exciting behavior ---even when they can tell you that it is not a good idea to do so.

Because we have found that the brain systems that help regulate attention and control action may be delayed in development in some children adopted from institutions, we have been examining whether the balance between the drive for reward in risky activities and cognitive self control may be more imbalanced for post-institutionalized youth as they make the adolescent transition.

In the Adolescence, Emotion and Reasoning study, we compared 12- and 13-year-old children, who were pre- and post-pubertal, on simple tasks that tap these different systems in the brain. Based on ours and others' earlier work, we expected that the changes which occur during adolescence would shift the way in which these brain systems function. We're excited to say that we have some early results to share with you.

First, we explored risk-taking behavior. The increase in risk-taking and sensation-seeking behaviors has been described as one of the greatest behavioral changes that occur during this transition-to-adolescence age period. To measure sensation – seeking and risk-taking, we had the adolescents complete a questionnaire asking questions about whether they would like to seek out different types of activities related to thrill and adventure. For example, "Would they like to go sky-diving off a high cliff?" We also had the adolescents complete a computer task that looked at whether the adolescents pushed the limits (i.e. took risks) when blowing up balloons in order to earn a large prize. The risk was that the balloon could pop at anytime causing the adolescent to lose all their points on that balloon; so they had to decide if and when to stop.

The results were very clear. Compared to children born and raised in their families in Minnesota, the post-institutionalized children were **LESS** interested in doing risky-but-exciting activities and they were more cautious in the balloon task. Children who are highly anxious also are less interested in taking risks and more cautious on the balloon task, so we thought it was possible that the adopted children's early histories may make them more anxious and this was why they were more risk-averse. This was NOT the case. The difference in risk taking and their greater caution wasn't explained by higher anxiety.

These findings are quite interesting, but also a bit surprising. There are two possible explanations. First, the children's early histories, while slowing the development of cognitive self-control brain areas, may also have slowed or altered the development of brain regions regulating interest in rewarding-but-risky activities. If so, then the "imbalance" in these propensities across the adolescent transition may end up being no greater for post-institutionalized children than for other children. Alternatively, if these children are simply delayed in both aspects of development, they may enter the period of "imbalance" at a slightly older age than their peers.

We have not yet examined how pubertal stage impacts our findings. By the next newsletter we should be able to report our final conclusions from this study.

Thanks to all the adolescents and their parents who participated!

The increase in risk-taking and sensation-seeking behaviors has been described as one of the greatest behavioral changes that occur during this transition-to-adolescence age period.

Findings from Professor Richard Lee's Research Group

Since we began the MnIAP, we have been affiliated with Professor Richard Lee in the Psychology Department. Professor Lee studies how children who are of a different ethnicity from their adoptive parents adapt to life in the U.S. His particular interest is in children from Korea, but some of his work is likely pertinent to other adopted children who are of a different race/ethnicity from their adoptive parents.

Is it easier for adopted Korean American college students to relearn Korean?

To answer this question, Dr. Richard Lee's research team, in collaboration with Dr. Janet Oh from California State University-Northridge, is currently recruiting internationally adopted Korean American college students to participate in a study on childhood language memory funded by the National Science Foundation. The purpose of the study is to investigate whether young adults who were adopted as infants from South Korea to the United States, and who have not had any experience with Korean language since they were adopted, show an advantage in learning Korean as adults over non-Korean young adults who have not had any prior experience with Korean language.

There has been extensive research demonstrating that early linguistic experience is critical for achieving native-like proficiency in a given language. However, it is unclear whether early linguistic experience that is limited to the first year or two of life can still aid the adult language learner when relearning the language, even after many years of disuse. It is possible that adult learners who were exposed to their birth language in utero and in the first year of life may be able to re-access these memories because they are now using this language.

In the case of adopted Korean Americans, do they have an advantage over novice, first-time Korean language learners? Specifically, are they able to tap back into their childhood language when relearning the Korean language? We expect that adopted Korean adults will outperform a comparison group of non-Korean language learners. We also plan to explore whether there are social, cultural, and emotional factors that might also predict their success in the language classroom.

Becoming Korean: Ethnic identity development when your parents are White

An increasing number of adoptive parents are seeking ways to promote the ethnic identity development of their children from different racial and ethnic backgrounds. For families who have adopted from South Korea, parents often promote a positive ethnic identity for their Korean American children through cultural socialization. That is, parents expose their children to Korean traditions, foods and customs, encourage learning the Korean language, and socialize them with other Korean children. However, from a research standpoint we do not know how well such activities actually contribute to ethnic identity development and what other factors might play a role.

In previous research, we found that colorblind racial attitudes (e.g., belief that racism is no longer a problem in society) can hinder the extent to which international adoptive parents engage in cultural socialization. Narrative accounts by transracially-adopted individuals similarly suggest that some adoptive parents are unaware of the ethnic and racial difficulties faced by their children (e.g., ethnic teasing and discrimination). In other words, colorblindness and lack of awareness of discrimination among adoptive parents may temper the effects of cultural socialization on children's ethnic identity development. To test this possibility, we hypothesized that the positive association between cultural socialization and ethnic identity would be tempered by the extent to which parents did *not* view the children as racial/ethnic minorities and did *not* perceive discrimination against the children.

We surveyed 237 Korean American adolescents (112 male, 125 female), ages 13 to 19, and one of their adoptive parents (68% mothers). Parents, ages 40-58 years-old, completed measures of cultural socialization practices, colorblind racial attitudes, and perceived discrimination against the adopted child. Adolescents completed a measure of ethnic identity development that taps into two aspects of identity – achievement and belonging. Ethnic identity-achievement refers to a clear, confident sense of what it means to be Korean. Ethnic identity-belonging refers to a feeling of pride and belonging with other Koreans.

We found that children with higher ethnic identity-achievement had parents who were engaged in cultural socialization but also were less colorblind and perceived discrimination against the child. We also found that children whose parents engaged in both cultural socialization and who perceived the discrimination their children faced had higher ethnic identity-belonging than children whose parents did not perceive discrimination or did not engage in much cultural socialization (see *Figure 1a*). We also found that children had higher ethnic identity-belonging if parents both perceived more discrimination against the children and were less colorblind (see *Figure 1b*).

The research findings, which will be presented at the Society for Research on Adolescence biennial conference in March 2010, suggest that although cultural socialization contributes to the ethnic identity development of adopted Korean American adolescents, the racial attitude and perceptions of adoptive parents play an equally important role, and under certain conditions, may even offset the benefits of cultural socialization. As such, it is important for adoptive parents to examine their own attitudes and beliefs about how racism in society may affect their children's efforts at identifying as Korean.

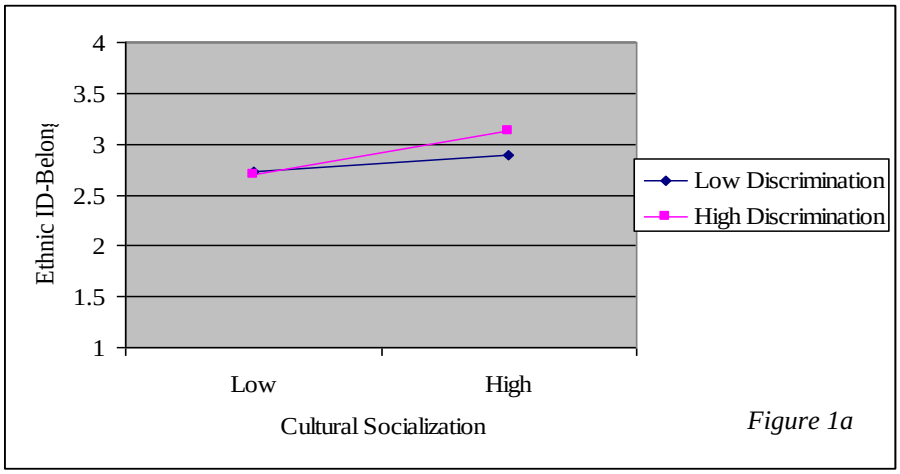

Figure 1a

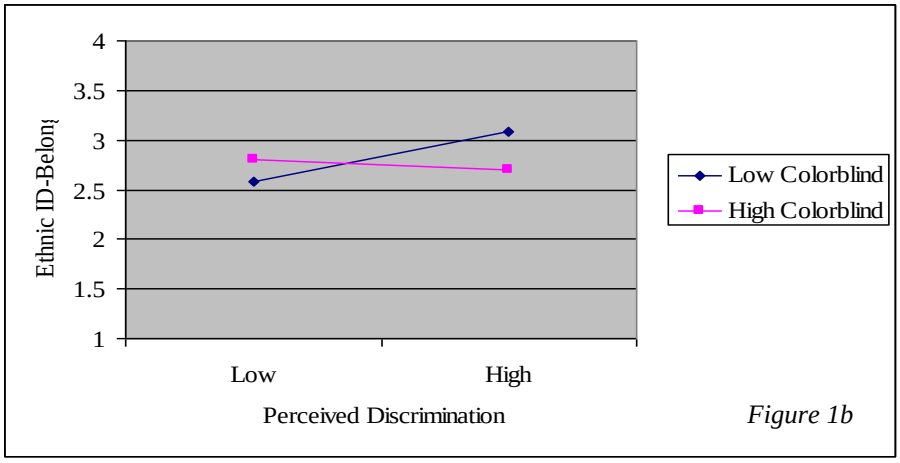

Figure 1b

The International Adoption Project Fund

An opportunity to support our work through your tax deductible contribution

The University of Minnesota's International Adoption Project is dedicated to providing answers to families created through international adoption. Our registry currently holds more than 4000 internationally adopted children, giving researchers opportunities to explore questions specific to families created through international adoption. We have been very successful obtaining grants to cover the cost of research with internationally adopted children.

Unfortunately, those grants do not cover the costs of maintaining the registry and sending out the newsletter. If you would like to contribute to the support of these activities, please visit the University of Minnesota's foundation website for the International Adoption Project to make a tax deductible contribution:
https://www.foundation.umn.edu/pls/dmsn/online_giving.frames_broker?owner=IAP

Any amount that you are willing to give is greatly appreciated. Because the University Foundation is overseeing this account, 100% of your donation will go directly to maintaining the registry and providing the newsletter. Your contributions will be anonymous. We feel that providing this research information to families and adoption professionals is worth the cost and we hope you feel the same. Thank you for considering supporting our work through tax deductible contribution. If you have any further questions about this fund, please feel free to contact us at 612-624-9322 or by email at IAP@umn.edu.

Thank you to all of you who contributed in the past.

Understanding how adoptive families talk (or don't talk) about race and ethnicity

Family conversations are valuable windows into the relationships and interactions among family members. Previous research has utilized survey measures to understand how international adoptive families address racial and ethnic differences within their family, but survey methods fail to capture the nuances found within actual conversations. To address this limitation, our current study examines the way in which families reportedly and actually speak to one another about race and ethnicity.

Using data drawn from the Sibling Interaction and Behavior Study (SIBS), we are comparing family conversations about race and ethnicity with parent and adolescent self-report survey data on the same subject. We are specifically interested in whether parent and adolescent self-reports of cultural socialization were observed in the family conversations. This approach allows us to highlight a more detailed understanding of how themes of race and ethnicity are negotiated within the context of international adoptive families.

So far, we have coded family conversations about race and ethnicity from a random sample of 30 families with at least one internationally adopted adolescent child from South Korea. Family members also completed surveys that assessed the extent to which parents engage in cultural socialization (i.e., teach their children about what it means to be a member of a racial and ethnic minority).

Family conversations about race and ethnicity were coded as one of three types – some families openly talk about race and ethnicity within the family; other families downplay or reject the salience of race and ethnicity; and a few families hold discrepant views on race and ethnicity (i.e., one person wanted to talk about the issue, but another person did not). These family typologies match with prevailing adoption theory that posits some but not all adoptive families are willing to acknowledge and discuss racial differences between adoptive and biological families. Open, honest discussions about differences within families, including racial/ethnic differences, provide children with a supportive family environment to learn about their ethnic heritage and what it means to be a racial minority in society.

The self-report data suggest that parents and children perceive differently parental efforts at cultural socialization. Specifically, parents reported that they are more actively engaged in cultural socialization than adolescents reported about their parents. This discrepant finding is consistent with our previous MnIAP survey study of adopted Korean American adolescents and their parents. We also found that adolescent reports of cultural socialization more closely matched the actual family conversations, but parent reports were not associated with the coded conversations. That is, adolescents who self-reported higher levels of parental efforts at cultural socialization tended to come from families who were observed to openly talked about race and ethnicity (i.e., acknowledged differences), whereas adolescents who self-reported lower levels of parental effort tended to come from families who downplayed race and ethnicity (i.e., rejected differences). Using a mixed-method approach, the study findings suggest adolescent children are aware of the ways in which race and ethnicity are or are not communicated within the family. Parents, by contrast, seem to report more effort than observed in actual family conversations.

Note. The Sibling Interaction and Behavior Study (SIBS) is conducted by Dr. Matt McGue in the Department of Psychology and is not a part of the International Adoption Project. Dr. Lee, who is a MnIAP co-investigator, received a NIMH grant to collaborate with Dr. McGue.

Please update your contact information!

We want to be sure that we maintain current information for all of our registry families so that we can keep you appraised of new studies and results. If you've recently moved or have a new e-mail account address, please update your registry info by e-mailing IAP@umn.edu, calling 612-624-9322, or completing the enrollment form online at http://www4.cehd.umn.edu/icd/IAP/enroll.htm

You can access current and past newsletters on our website: http://www4.cehd.umn.edu/icd/IAP/default.html
We are happy to provide a paper copy of the current newsletter upon request.

Thanks for your help in keeping our registry current!

News from the Adoption Medicine Program and Clinic

NURSE CARE COORDINATOR

Beth M. Andrews, R.N., M.S.

Meet **Beth Andrews, M.S., R.N.**, who joined the Adoption Medicine Program staff in January 2009 and has fast become one of families' favorite and most helpful points of contact for pre-appointment questions and post-appointment follow-up when they bring their children to the adoption clinic.

In addition to regular clinic preparation and follow-up, Beth also coordinates care for a growing number of families who are traveling to Minnesota from other states and other countries for the kind of specialized care that the adoption clinic is uniquely able to provide. She makes sure that these children are able to see all the specialists they need to see in the shortest amount of time possible, minimizing the number of days spent in Minneapolis and number of trips that tired, strained families need to make in order to address their children's needs.

Beth has more than 10 years of experience as a staff nurse and staff educator in pediatric care settings. She speaks Spanish and has enjoyed teaching English to Latina women in the Twin Cities.

Beth has always had a special interest in the home, school, and community lives of children with special needs. Her philosophy: "Those of us who work in international adoption medicine have the obligation – and the pleasure! - to support families as they raise children who may have ongoing challenges in their lives. It is an honor to be invited by families into the process of nurturing these children, both their physical health and their emotional/behavioral well-being."

"Those of us who work in international adoption medicine have the obligation – and the pleasure! - to support families as they raise children who may have ongoing challenges in their lives."

--Beth Andrews, R.N., M.S.

Maria Kroupina, Ph D.

INFANT MENTAL HEALTH

Maria Kroupina, Ph.D., clinical psychologist on the adoption clinic team and recent recipient of a competitive national fellowship in the broadly known Zero To Three program, continues to offer developmental assessments and behavior testing, counseling, and assistance to families who are experiencing transition issues. To the list of services provided, Dr. Kroupina is working to launch a program in infant mental health, the first of its kind in the United States. As part of her Zero To Three fellowship, Dr. Kroupina will work to design a mental health program for adopted infants and toddlers, taking advantage of the multidisciplinary clinic theme already in place in the adoption clinic. The aim is to put in place additional mechanisms for early identification of high-risk children at the time of their initial medical evaluation and to pilot a research-based intervention program in a clinical setting. She continues to direct an active research program and to be involved in several collaborative projects, including work with Dr. Megan Gunnar in the International Adoption Project.

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