

INTERNATIONAL ADOPTION PROJECT

Summer 2013

Self-Control Training Study

Have you ever been so frustrated by a problem that you wanted to scream and give up? Or have you ever had a hard time stopping yourself from doing something (like eating cookies before dinner) even though you knew you shouldn't? A major task of childhood is learning to control impulses, emotions, and attention. For internationally adopted children, who have experienced early adversity, developing these skills is often especially challenging. In our training study, our primary goal is to test the effectiveness of two different ways to improve self-control: mindfulness training and executive function training. Mindfulness training seeks to develop these skills by making children more aware of their senses, feelings, and actions, and teaching them ways to feel calm. Executive function training gives children direct practice in "stopping their bodies" (controlling impulses), paying attention, remembering information, and thinking creatively. We are also testing these two types of interventions to see which works better. Finding out that one works better than the other would give us a better understanding of the nature of the attention and self-control problems of children adopted from institutions. Of course, we may also find that

they both work, but that they target different problem behaviors. If this is what we find, then our next step will be to develop an intervention that combined both mindfulness and executive function training.

Participants

In wave 1, which took place in the summer of 2012, 27 5- to 8-year-old children participated in the study. See Figures 1 and 2 for details about our participants. Ten children participated in mindfulness-based training, 10 children participated in executive function based training, and seven children were in the control group, meaning they were tested at the beginning and end of the study but did not participate in any training. This group is very important because it allows us to see if children's performance changes over the summer without any training, which helps us understand if the trainings are effective. In wave 2, taking place this coming summer, we are recruiting 75 children who will be again separated in to three groups. In wave 2 we are including both children adopted out of orphanage care and adopted from foster care.

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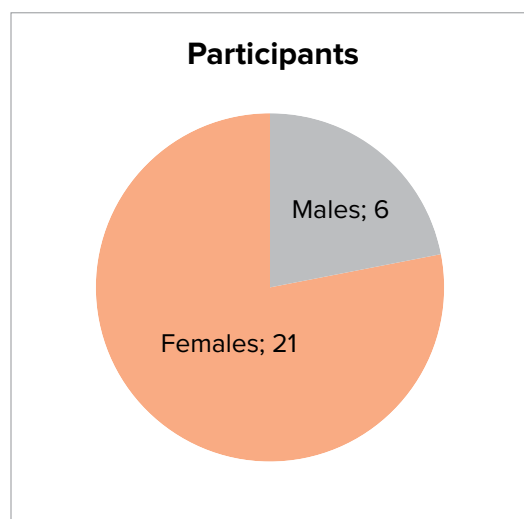


Figure 1

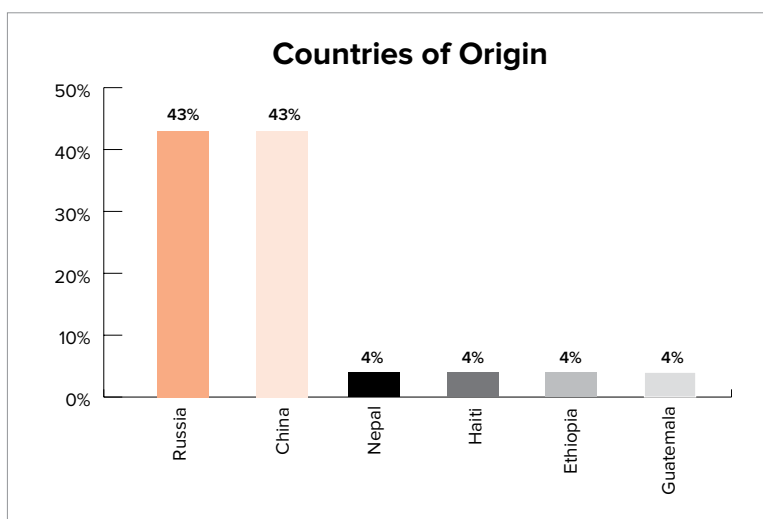


Figure 2

Greetings from Professor Megan Gunnar

This newsletter is being sent to all families who have participated in our research with their children. We want to thank you all for giving your time so generously to this work.

The Minnesota International Adoption Project (MnIAP) was inspired in the mid-1990's by a talk that Dana Johnson made to the Institute of Child Development faculty. Johnson, who organized the first International Adoption Clinic in the US, came to the Institute with a plea for help. He said that he and his team could deal with the health issues of the children they were seeing in the clinic, but were out of their depths in responding to all the behavioral concerns the parents were expressing. Several years later, and following a trip that Megan Gunnar made to Iasi, Romania, the MnIAP was established with the help of a large grant from the National Institute of Health (NIH). Our initial grant helped us to identify 4,000 children adopted into Minnesota between 1990 and 1998 and to survey their parents about how they were doing. From there we started our MnIAP registry which now has over 5000 children, youth and young adults on it, and applied for more NIH funding to study the brain and behavioral development of internationally adopted children and youth and to understand (Richard Lee's research group) issues of race and culture as they play out in families created through international adoption.

We are now focusing on two critical periods in the lives of children who enter their families through international adoption. First, through the Transition Study (see story on page 10) we are focusing on pre- and post-adoption factors that influence how the child makes the transition into the adoptive home and then later into school. Second, in several studies we are examining factors that influence the adjustment in adolescence, a time which is challenging for most children, but especially for many internationally-adopted children. We have also begun to develop and test interventions for school-aged children to improve self-control and attention (see cover page *Self-Control Training Study*).



Help with resources: We are honored to gather information about families to help further knowledge in the area of international adoption. In working with families and data from surveys, we often get to hear about the joys that have come to your lives after adoption. We also hear of the challenges, which can be overwhelming at times. We wanted to take this moment to remind you that you are not alone in these challenges and that there are resources available if you need them. Please feel free to contact us at iap@umn.edu and we will do our best to help you identify resources, or contact staff at the International Adoption Clinic at the University of Minnesota (<http://www.med.umn.edu/peds/iac/>) with whom we often collaborate on our research projects at iac@umn.edu.

We hope you find our newsletter informative. Thanks for all you do to make our work possible!

—*Regents Professor Megan Gunnar & the Minnesota International Adoption Project Team*

Childhood Language Project



As many people know from personal experience, it is easier to become proficient in a language as a young child than as an adult. Considerable research supports the importance of the early years for language learning. In fact, our research so far suggests that early language experience is so important that even when individuals only have experience with a language early on, they can later benefit when they try to learn the language as an adult. For example, we have previously found that Korean American adults from immigrant families who spoke Korean regularly only in childhood (up to age 5), spoke Korean with more native-like accents than their classmates who had no childhood experience with Korean.

Among internationally adopted Korean American adults, the findings of the Childhood Language Project so far have shown that English-monolingual adults who were adopted from Korea during infancy are more proficient at distinguishing among the sounds of Korean than first-time learners of Korean with no prior experience. As we have examined this advantage further, we have found that the advantage that adopted students in Korean language classes have is evident even after just 2 weeks of Korean language classes, even though they had no prior experiences with Korean post-adoption.

The Childhood Language Project is currently recruiting adopted Korean American adults between the ages

of 18 and 30 to participate in our National Science Foundation-funded study. We are now examining whether such a language advantage can be revealed after participation in computer-run training sessions in our lab. Please contact us at koradopt@umn.edu if you are interested in participating in our study. You do not have to have post-adoption experience with Korean to participate.

Our research team includes Dr. Richard Lee at UMN, as well as Dr. Janet Oh at California State University, Northridge, Dr. Sun-Ah Jun at UCLA, and Dr. Terry Au at the University of Hong Kong.

Self-control, from page 1

Methods

In this study we are comparing two different ways of training self-control in children: 1) using executive functioning games and 2) using mindfulness-based training. Children will participate in executive functioning or mindfulness-based training classes twice a week for six weeks during the summer. During each training class, the children will play a variety of games designed to improve their ability to focus their attention and resist impulses. Children are placed randomly in either the mindfulness group, the executive function training group, or the no intervention control group. In the mindfulness-based training group, activities will include learning to pay

attention to breathing and physical sensations, learning to pay attention to different feelings and thoughts, and practicing compassion exercises. In the executive functioning training group, activities will center around fun games (like “Simon Says” and “Red Light/Green Light”) that help children practice paying attention, resisting impulses, and remembering information. At the end of each class, parents will receive directions for a game or activity to complete with their child before the next class. These activities are to help transfer what children have learned in class and apply it to their everyday lives.

To measure the effects of the training classes, children and parents will visit the laboratory before and after

the training. There, they will play computer games designed to measure different aspects of self-control, wear an EEG net to measure brain activity, and complete tasks that assess socioemotional development.

Preliminary Results

Preliminary results from last summer are encouraging and we look forward to collecting more data this summer and sharing the results with you. Sadly, we cannot tell you what we found last summer because it might affect the validity of our findings (some of which depend on parent report) this coming summer. However, we will share our full results in next year’s newsletter.

Ethnic Identity and Discrimination Study

There is no doubt that it hurts to be discriminated against or treated unfairly because of one's ethnicity and race. Research has clearly linked ethnic/racial discrimination with a host of physical and mental health problems in children, adolescents, and adults. We are interested in what can be done to protect children and adolescents from these negative effects of discrimination. Theorists and researchers have identified ethnic identity as a potential protective factor against discrimination. However, the current research findings are mixed with some studies suggesting ethnic identity protects and other studies suggesting ethnic identity may actually exacerbate the effects of discrimination.

The goals of this study were to: (1) better understand the impact of ethnic/racial discrimination and ethnic identity on emotional and behavioral functioning in adopted Korean American (AKA) adolescents and (2) examine whether ethnic identity serves as a protective or risk factor against the effects of discrimination.

Data for this study comes from the Korean Adoption Project. We looked at the responses of 136 AKA adolescents between the ages of 13- to 18- years old. In order to limit sample variability, we only considered adolescents who did not have any known developmental disorder and whose adoptive parent(s) were White.

Not surprisingly and in line with previous studies, AKA adolescents who said they experienced discrimination also reported that they had more behavioral and emotional problems. However, discrimination was not associated with problems with drug and alcohol use. The relationship between ethnic identity and emotional and behavioral functioning is more complex, dependent on the particular aspect or dimension of ethnic identity. AKA adolescents who have a clear sense of what it means to be Korean and have positive feelings and attitudes about being Korean are less likely to report emotional and behavioral problems. Interestingly,



the extent to which AKA adolescents actively seek out or participate in cultural activities was related to more internalizing problems and past substance use. This latter finding is not unique to AKA adolescents, as other researchers have documented this negative association in other ethnic minority populations. It is possible that adolescents who are exploring what it means to be Korean have more identity confusion and are thus more vulnerable to behavioral problems.

Lastly, we found that the question of whether ethnic identity is a protective or risk factor against discrimination has a complicated answer. A positive ethnic identity doesn't protect one from behavior problems when discrimination is high, but does seem to help when discrimination is low (see Figure 3). Overall, AKA youth reported low drug and alcohol use, but when discrimination was high those youth who were more behaviorally involved with their ethnic group were more likely to use substances than those who were less involved (see Figure 4).

Overall, our study findings show that AKA adolescents face challenges similar to other racial/ethnic minorities, such as discrimination. Further research is needed to fully understand the meaning of the interactions between ethnic identity, discrimination, and emotional and behavioral functioning. It would be misleading to assume that ethnic identity is detrimental because it can exacerbate the negative impact of discrimination. There are multiple interpretations for this finding, including methodological limitations in measuring ethnic identity. Rather, the results speak to the real issue of discrimination for internationally adopted adolescents and the importance of discussing and preparing adolescents for these types of experiences. If you have any questions or comments, please contact Richard Lee in the Department of Psychology, richlee@umn.edu.

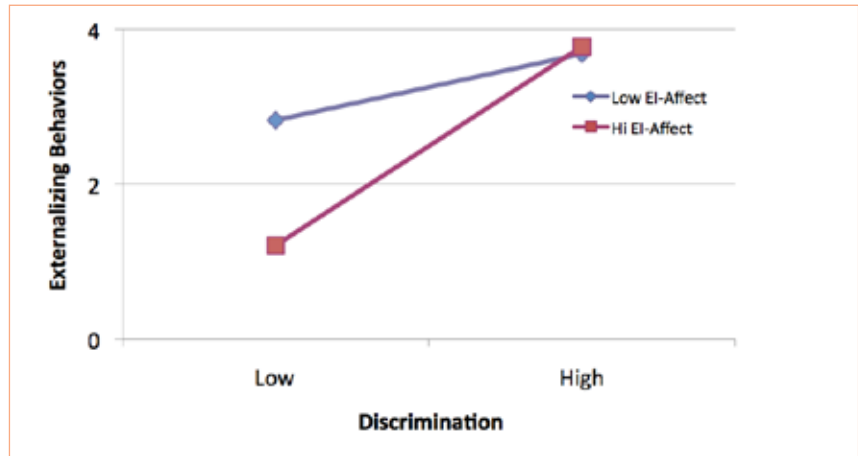


Figure 3

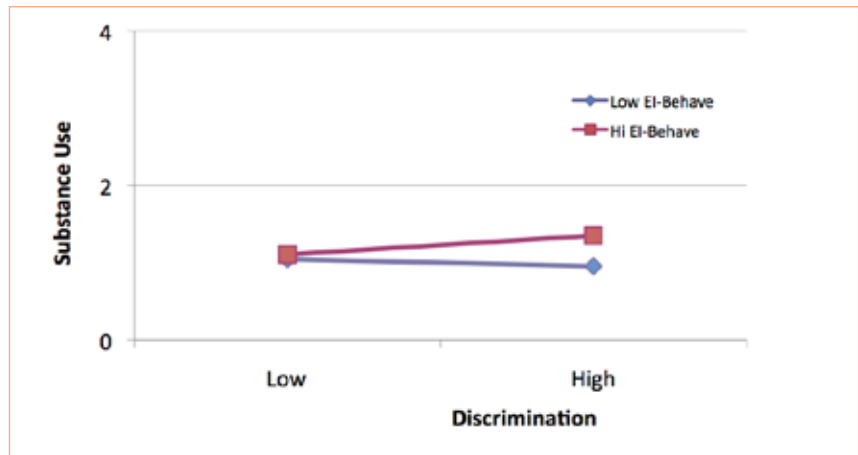


Figure 4

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Updates from the Social Support Study

We recently completed the Social Support Study and would like to thank the 164 participating families for their help and time commitment! The purpose of this study was to examine whether different early life experiences influence how much our bodies react to challenging situations, like public speaking, and how social support and emotion regulation strategies impact children's reactions to such challenging situations.

Participants

For this study, we recruited 82 volunteers who spent a major part of their early years in an orphanage or institution before being adopted in the United States, half of which were children aged 9–10 years and half who were adolescents aged 15–16 years. We also recruited 82 participants who were raised in their families of origin in Minnesota (similarly divided into groups by age and gender).

Our measures

When people have strong emotional reactions, the brain signals the body to increase its production of the stress-sensitive hormone cortisol. For this study, we measured cortisol in saliva samples collected from children and adolescents after they gave a speech (imagining that they are introducing themselves to a new classroom) and performed arithmetic problems in front of a double-sided mirror, after being told that there will be an audience of several adults behind the mirror. This study mimicked the kinds of public speaking activities that children and



teenagers experience at school. Participants were randomly assigned to prepare their speech with one of their parents (parent support condition) or with a female experimenter (stranger support condition). We also used questionnaires to measure how children manage challenging situations and assess experiences that may influence their coping strategies. We have just begun to analyze these questionnaires and we will have more updates soon.

Preliminary results

Based on the analyses conducted so far, it seems that age group (teens vs. children), early life

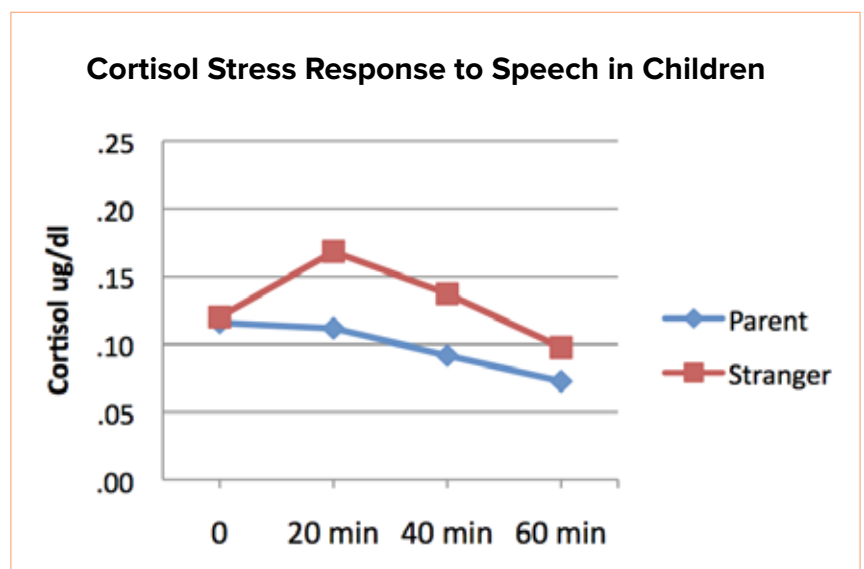


Figure 5

Cortisol Stress Response to Speech in Teenagers

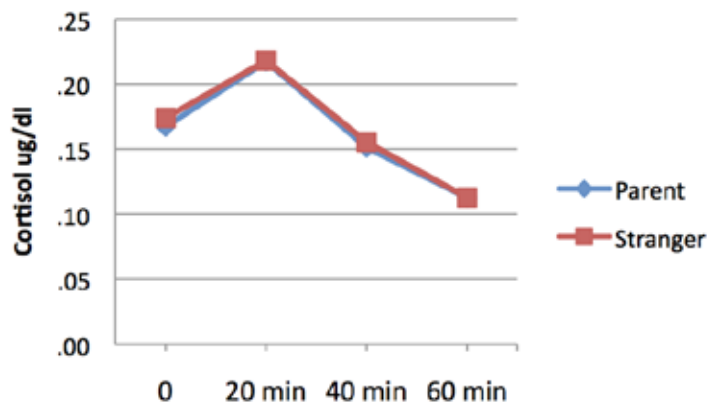


Figure 6

IAP Parent Board

We are grateful to the IAP Parent Board Members for their contributions and involvement of our research projects: Jamalee Desmond, Kate Brady, Cari Lee, David Casey, Diane Benjamin, Mark Markell, Stacy Anderson

We want to give a big welcome to our newest board members:

- Deborah Paulsrud
- Heather Ball
- Laurie Pickert
- Patti Bower

caregiving experiences, and support condition in the lab (parent vs. stranger) all interact and play an important role in influencing the cortisol stress response. In the Minnesota-born group, we found that parent support was very powerful in helping 9–10 year old children have a lower stress response, but for teenagers the stress of talking about oneself in front of an audience was not able to be lowered by parents (see Figures 5 and 6). In the internationally adopted group, we are finding a

complex pattern of results that we are still analyzing. The 9- and 10-year olds children show a stress response to separating from the parent before they even start preparing for the speech. For the older children, we are seeing a complex set of findings that differ by whether the child is a girl or boy, has a psychiatric diagnosis or not, and perhaps is on medication or not. Given this complexity, we are still sorting out what the data on the 15–16 year-olds are telling us. Stay tuned ...

Stay In Touch

We want to be sure that we maintain current information for all of our registry families so that we can keep you apprised of new studies and results.

If you've recently moved or have a new e-mail account address, please update your registry info by emailing IAP@umn.edu, calling 612-626-8949, or completing the enrollment form online at: www.cehd.umn.edu/icd/research/IAP

Collaborations & Partnerships

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Genes and Resilience Study

Children adopted from depriving situations often are quite delayed at adoption but show remarkable capacities for recovery in their adoptive homes. Nonetheless, studies that follow children for years after adoption show that some kids recover quite fully and rapidly whereas others continue to struggle. In this study we are examining whether genetic differences contribute to the differences in resilience that are often seen in internationally adopted youth. We are conducting this study in collaboration with Professor Kathleen Thomas here at the University of Minnesota and Professor BJ Casey's lab group at Cornell-Weil Medical Center in New York.

The specific gene in which we are interested is called brain-derived neurotrophic factor, or BDNF. BDNF is important for growth and repair in the brain. In the "recipe" for BDNF, most people have a variant called valine ("VAL"), but many people have a different version, called methionine ("MET"). Compared to VAL, MET is associated with less efficient trafficking of BDNF in the brain and therefore, less efficient growth and repair. As is the case with most mutations that are common in a population, however, research shows that having the MET version is not always a bad thing. Rather, it seems that MET makes a person more sensitive to the environment they experience, improving functioning under some conditions and hindering it in others.

This increased sensitivity is indeed what we have found in our study. In previous newsletters we have told you about our findings that youth who have at least one copy of the MET version of the gene and who were adopted early in life have

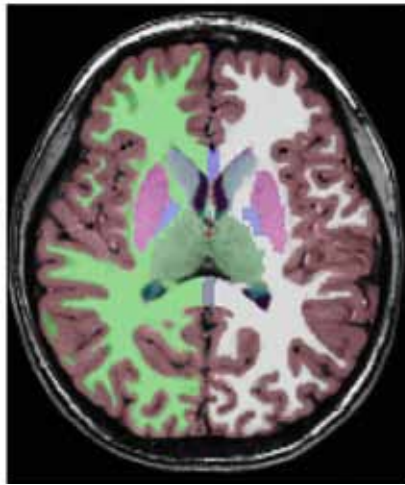


Figure 7. Example of brain image segmented into individual structures.

fewer attention problems, according to their parents, than those with the MET version who were adopted later (after 12 months). For youth with only VAL versions of the gene, there is no difference in attention problems between kids adopted earlier and kids adopted later. Laboratory tasks of the ability to monitor attention have confirmed what we learned from the parent report.

In addition to the questionnaires parents completed and the computerized tasks the youth

played, 163 youths have visited a University MRI scanner to let us examine the structure and function of their brains. Using the images acquired from the MRI scan, we are able to segment the brain into different functional regions. Measurements of the volume of brain tissue in these regions give us clues about the structures of the brain developing in our participants (see Figure 7 for an example of a segmented image). Previous research by the International Adoption Project has found that some adopted youth struggle with attention problems or subtle memory differences. These abilities rely on a brain structure called the hippocampus and another area called the prefrontal cortex (PFC). Therefore, these were the structures that we examined in this research.

Compared to non-adopted youth, on average adopted youth had smaller brain volume overall. Even when taking total brain volume into consideration, regardless of their age of adoption, the adopted youth on average had smaller PFCs than non-adopted youth (see Figure 8). Of course, there was a good deal of variation and many adopted youth had PFC sizes that were

within the range of the non-adopted children. We also examined a region called the hippocampus which is important for long-term memory for facts and for spatial skills. This region was smaller for children who were adopted after 12 months of age compared to the non-adopted children, with the children adopted before 12 months falling, on average, somewhere in between (see figure 9).

What does it mean? Smaller brain volume sometimes means lower scores on tasks that depend on the region of the brain that is smaller. But, this isn't always the case. On a number of tasks that depend on the prefrontal cortex, the children who were under 12 months of age at adoption actually out-performed the non-adopted children. How could this be when they had smaller prefrontal cortices even after we corrected for whole brain size? It seems likely that they were adopted young enough so that they could learn ways of "doing more with less". We think we are seeing some evidence of this when we look at our measures of brain function (i.e., which areas of the brain are getting more blood when the brain is working to solve particular tasks.) However, we still have more work to do on these functional data before we can tell you the complete story. Stay tuned.

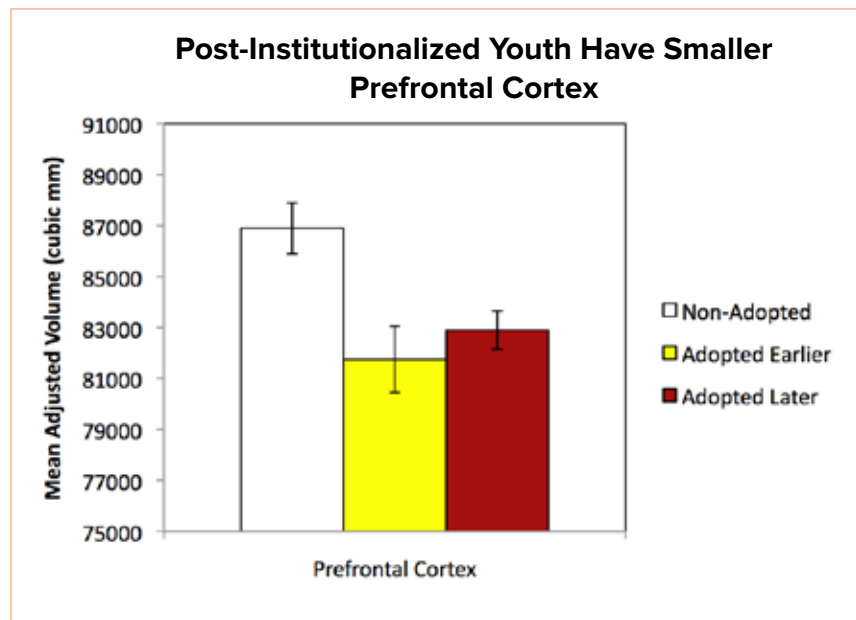


Figure 8

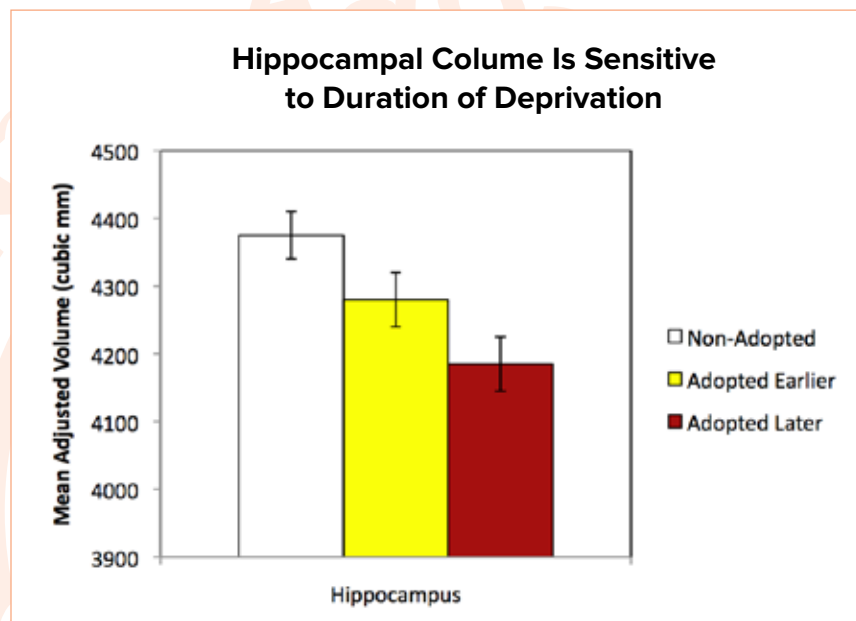


Figure 9

Transition into the Family Study

The goal of the Transition Study is to follow children intensively, seeing them every 8 months, for the first two years that they are in their families. These first two years are a period of rapid recovery from pre-adoption deprivation for children who lived in orphanages or other institutions. We are following patterns of change in emotions, relationships, growth, thinking/learning and physiology over these two years and using these changes to predict children's functioning at the cusp of entering kindergarten and then in the kindergarten classroom. Our goal is to determine ways of identifying children who may need extra help early, before they get to school.

How Far Along Are We?

We have completed recruitment with 222 participants (114 female). There are 167 (115 Post-Institutionalized and 52 Early-Adopted) children who were adopted internationally and 50 children who were born into their Minnesota families. All of the families have completed sessions 1-3 and 93% have completed session 4. We hope to have all families complete their 4th visit by the end of the 2013 year.

When children are 5 to 5.5 years old we see them for session 5. So far 127 families have completed session 5.

What Have We Learned So Far?

Recall that the development of children adopted between 18 and 36 months from institutions is the focus of much of this study. We are comparing their development to children's adopted earlier with little to no institutional care prior to adoption, and to children's development who were born and raised in their families in Minnesota. Because all of the children have completed sessions 1 and 2, we can begin to draw some conclusions about how the children are doing during their first year in the family.

Indiscriminate Friendliness: When children arrive in their families, many of them show a pattern of behavior that has been called



“indiscriminate friendliness.” Included in this pattern is a tendency to eagerly approach and attempt to engage strangers, to wander off without checking in with parents, and a general lack of wariness of strangers that is more common for toddlers who have been raised in family settings. Last year we told you that these “friendly” behaviors seem to decrease pretty quickly after adoption, but what remains in some children is a tendency to initiate physical contact with strangers, for example holding hands or hugging an adult they just met. These behaviors continue to differentiate internationally adopted children from non-adopted children. It appears that these children may be struggling to understand or conform to social boundary norms such as personal space. We have now seen a number of those children at their 5 year assessment and have had a chance to complete the parent interview that examines children's social behaviors with adults. Our initial findings suggest that those children who readily approached and touched strangers in their first year after adoption are likely to still be showing problems conforming to social boundaries, for example they are more likely to share personal

information or ask intrusive questions of adults they just met. We still have a number of children to see at their 5 year visit, so these findings are tentative. We will let you know next year what we find when we have seen all the children at age 5.

Attention Problems: One of our goals in the transition study is to determine how early we can identify children who might benefit from earlier intervention. Children adopted from institutions and children who experience disruptions in their early lives seem to develop problems in regulating attention and get labeled with ADHD. Among the many questions on questionnaires parents completed during the Transition Study were questions dealing with the child's ability to focus and sustain attention and inhibit impulsive behavior. At 5 years of age, we had parents complete a more extensive set of questions that provide scores on scales of attention and hyperactivity. Although we are only part way through our analyses of these data, Alyssa Miller, an honors undergraduate in the Gunnar Lab, wanted to examine them for her honors thesis. She formed groups from the age 5-years data of children who were really struggling with attention control and compared those children to those who were average on attention control. She then looked back to see how early after adoption parents were reporting more attention problems for those who ended up in the greater problem group at age 5. We were surprised to see that as early as the first visit, an average of 2 months after adoption, these children were beginning to stand out. Now, it is not the whole sample and we are using parent report to predict a later measure of parent report, and this is not the most convincing data. In kindergarten, the teachers are completing a commonly used



screening measure for children's attention issues. Once we have all the children through the kindergarten assessment, then we can redo Alyssa's honors thesis and will let you know what we find. If we can use parent report to identify children soon after adoption who may need extra help learning to focus and control their attention and behavior, this might be quite useful in getting children help early, before they start school.

Fearful Temperament: Children adopted from institutions tend to report more fear and anxiety, and in some studies show changes in brain structures that underlie fearful, anxious behavior. This is one reason why we have been studying how the children in the Transition study react to our strange, mechanical cars and

“creatures”. What we have found is that all of the children, regardless of whether they come from foster care or an institution overseas or have been with their families since birth, show mixtures of fear and approach to our arousing toys. However, we find no evidence that children from institutions are more frightened of them. What we do find is that they freeze for a bit longer and they laugh and smile less. Maybe that isn't surprising for the arousing, potentially scary toys. But we also find that children from institutions smile and laugh less when we show them fun things, like soap bubbles and balloons. And this doesn't change from our first to second session. We are now looking at the data from the third session, 16 months after adoption to see if this persists. These findings are very similar to those reported for children in Russian orphanages and those who were taken out of Romanian orphanages and placed in foster families. We are not sure what it means or even if it is important. If it is important, then we should see it predicting how the children do as they get older.

Becoming Attached to Parents:

We recently completed our analysis of how soon after adoption toddlers form attachments to their parents. In the Transition into the Family Study, families came to our lab very soon after adoption (within 1–3 months) and then again 7–9 months from adoption. Children were approximately 16–36 months old when they arrived into their parents' full-time care and had spent at least half their lives in an institution or orphanage. Dr. Elizabeth Carlson, a well-known expert in the field of attachment, provided us with ratings of where children were on their path to forming an attachment at each of

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the two time points. She examined videotapes of the entire visit which included brief (1–3 min) separation, meeting strangers, encountering strange objects, and playing with the parent. When we had seen 65 children adopted from institutions we conducted the analyses. We compared them to 52 children of the same age who were born and raised in their families in Minnesota.

One of our very hopeful findings was that the formation of attachment with the new parents occurred relatively quickly, with 38% of children having formed an attachment as early as the first assessment (1–3 months post-adoption), and 90% having done so by the 2nd assessment (7–9 months post-adoption). This was a very encouraging finding, given that many of these young children had lived their whole lives in institutions before adoption. Children who had experienced more adverse events prior to adoption and those who were less healthy at adoption took a bit longer than those who had less adversity and better health at adoption. But, again, nearly all of the children had formed an attachment by the time they came in for our second assessment visit. We are now examining how the quality or security of the relationship changes over time as the children get more and more comfortable in their new families. Our final assessment of attachment is drawn from the interviews that we do with families when the children come in for their assessment when they are 5 years of age.

Kindergarten assessment: The Kindergarten Assessment phase of the Transition Study began during the 2011–2012 school year as the first children in our study reached kindergarten age. For this portion of the Transition Study, parents and teachers complete reports to provide us with information on the child's behavior, relationships, and performance in school and at home. One observer from our team visits the child's kindergarten classroom on one school day and sits quietly recording the child's behavior. We score information about activity context, level of academic engagement and attention, as well as social integration and interactions. We



also obtain 3 saliva samples for cortisol hormone analysis during the observation period: at arrival to school, 1 hour after arrival, and 2 hours after arrival. These saliva collection time targets are flexible to allow waiting for natural transitions in the classroom so as not to disrupt the activities.

Parents and schools have both been wonderfully supportive of this project! We obtain formal principal and teacher approval in addition to parental consent. We begin by contacting the parents and having them sign a letter to the school indicating their interest in participating, along with a consent form. We then contact the principal and work with the principal and the teacher to coordinate the visit. Parents have often gone above and beyond, contacting the teachers and principals themselves to encourage participation in our project.

By the end of this school year we anticipate a total of 81 school visits will be completed over the course of the 2011–2012 and 2012–2013 school years. Six families have chosen to home school their children and so were not eligible for this phase of the project, and seven families have declined participation. Only two schools have declined participation. Of all the schools that have participated so far, the children were enrolled in 29 different public school districts in addition to numerous private schools. We have observed in Chinese, German, French, and Spanish language immersion programs. Members of our team of observers have traveled

to kindergarten classrooms as close as 3 miles from the University and as far as 290 miles away. Only 1 school has been too far to reach, and that would have involved an international plane ticket. However, in this case both the teacher and family were still willing to complete the online survey reports from afar.

We are extremely thankful for the support and enthusiasm we have received from the families, teachers, and principals who are a part of this project. This summer we plan to start to analyze the information we've gathered so far, and gear up for the 2013–2014 school year when we anticipate another 62 children from the Transition Study will enroll in kindergarten.

Iron deficiency and cognitive development: Due to poor nutrition or trouble absorbing nutrients from

food, approximately 25% of children adopted internationally are iron deficient at adoption. Iron deficiency (ID) during early childhood can affect the developing brain. Few of us who study the cognitive and emotional development of children adopted from overseas attempt to account for nutritional effects. When nutrition is addressed, it is usually by assessing the child's weight for age at adoption. To examine whether micronutrients, like iron, add to our ability to predict how children will do cognitively, we collected information about iron status at adoption and reanalyzed information we have on children's cognitive functioning a year after adoption.

We found that both the length of time children spent in an institution and their iron levels at adoption were important when predicting cognitive

scores 12 months after children entered their families. Children with ID anemia (severe ID) and ID without anemia (less severe ID) had lower IQ scores and poorer performance on tasks than children with normal iron levels (see graph). Likewise, children who spent longer periods in an institution before adoption performed worse on cognitive tasks than children with less time in an institution. These findings underscore the importance of providing good nutrition to children living in institutions and keeping track of iron status and rectifying poor iron status as soon as possible for those who have been adopted by a loving family. For more information about nutrition for adopted children, visit adoptionnutrition.org and spoonfoundation.org.

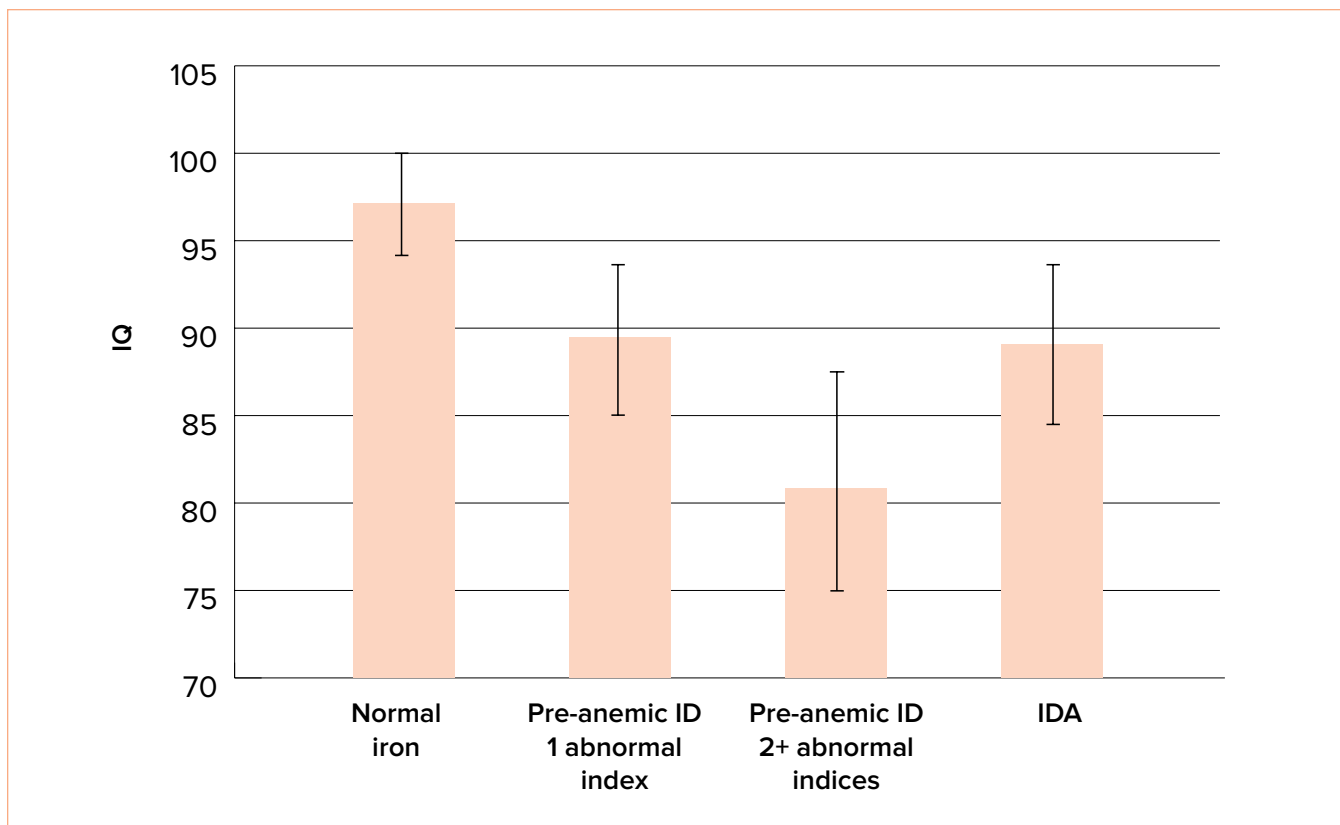


Figure 10

Expressive Writing Study with Korean American Adopted Adults

Introduction

The desire to write about our thoughts, feelings and experiences draws on an innate need to share one's life through the telling of stories. Whether it is retelling your day to your partner over dinner, musing with your cat about your family or even writing on your online journal to an anonymous audience in cyberspace, we often tell stories to organize events in our lives in meaningful ways. By telling stories we gain a deeper understanding of ourselves, and through the disclosure of our thoughts and emotions, we hopefully gain clarity and insight.

Drawing upon both expressive writing and transracial adoption research, this study is an expressive writing intervention that aims to explore thoughts about birth family for Korean adopted adults. This study also examines whether expressively writing about birth family and culture impacts the psychological and physical health outcomes for adult Korean American adoptees.

Procedure & Sample

Participants completed three online surveys (intake, follow-up one and follow-up two) and three days of online expressive writing. They were randomly assigned to three writing conditions: (a) writing about birth family and culture (b) writing about general stressors, unrelated to adoption, and (c) writing about technology. In total, 84 participants completed the full study. This sample was predominately female (77.4%) and the average age was approximately 30 years old. The majority of participants were adopted before 12 months old, and their parents were predominantly White. In general, participants had daily to weekly contact with their adoptive parents and over half of the participants (59.6%) reported that they were satisfied to very satisfied with the relationship with their adoptive parents.

Forty-three participants (51.2%) have conducted a formal search for their birth family and 41 (48.8%) have never formally searched. Of these participants who have searched, 20 (23.8%) have met a member of their birth family. Of the participants who have never searched, 20 (50%) stated that they will likely to very likely search for birth family someday and 19 (48%) of participants stated that they will never to unlikely search for birth family (1 participant did not answer the question).

Preliminary Results

We have concluded data collection for this study and have begun data analysis to test our study hypotheses. As a preliminary step in the analysis of what participants wrote, we created a word cloud of the 150 most popular words used in the writing about birth family and culture condition. Word clouds allow researchers to identify quickly and visually which words appear more frequently in writing. As expected, more frequently used words corresponded with the prompt to write about birth family and culture (e.g., “adopted,” “birth,” “family,” “Korea”). In addition, we garnered new insights into the thoughts and feelings expressed by participants by the use of words such as “different” (N=98), “better” (N=57), “hard” (N=74), and “hope” (N=34). For instance, “mom” (N=55) and “mother” (N=164) are more frequently used than “dad” (N=28) and “father” (N=36).

Beyond examining the word cloud, we next will analyze the data to determine if writing about birth family and culture impacts psychological and physical health more so than writing about other topics. These results will be reported in future newsletters.

This study is no longer accepting participants. If you have any questions or comments about this study, please contact Dr. Oh Myo Kim, berar005@umn.edu.

Peer Victimization, and Internalizing Symptoms in Internationally Adopted Youth

Healthy relationships with peers are important predictors of children's adjustment. We know that some children adopted from institutions struggle in their relationships with peers, especially as they reach adolescence. However, little is known about which aspects of peer relationships (e.g., bullying, peer acceptance) are most challenging for internationally adopted youth in comparison to other children. Furthermore, we are not clear on how peer difficulties might affect adopted youth's socio-emotional adjustment (e.g., problems with depression and anxiety). In the following study, we focused in on peer relationships and symptoms of mood problems to try to answer this question. We paid particular attention to two types of bullying/victimization: overt forms, including hitting, pushing and name calling, and relational forms, like threatening to exclude a child from the group, making up nasty stories about a child, or otherwise aiming to ruin their relationships.

As part of a large study we did on genes (BDNF study), we asked adoptive parents of 568 children who were 8.5- to 14-years old to complete a questionnaire that covered all sorts of aspects of children's functioning, including their relationships with peers. The children came from 24 different countries, were adopted between 1.5 and 72 months of age, and had been in their families for at least 6 years. Through collaboration with Dr. Marilyn Essex



at the University of Wisconsin, we received data from 301 youth, born and raised in their natal families in the Midwest, to use as a point of comparison for our adopted participants. In these analyses, we were not interested in the BDNF gene, but in whether being adopted, and being adopted later, would be related to peer victimization and mood symptoms.

Last year, we told you that youth who experienced longer durations of institutional care engaged in more overt aggression with peers but showed no differences in relational aggression. However, when we compared adopted participants to non-adopted youth, we found that adopted youth were actually less physically aggressive. Again, there were no differences in relational aggression between any of the groups. This may be because relational aggression is often indirect and occurs “behind the scenes”, so it is difficult for parents to observe.

In contrast, we found that adopted youth were at risk for peer rejection and victimization (i.e., being victims of bullying). In comparison to non-adopted youth, adopted youth were less accepted by peers and were subject to more physical and relational victimization. This was especially true for youth adopted after 12 months of age, particularly among boys. Because we know that peer rejection and victimization increase the risk of children becoming anxious or depressed, we looked at whether adopted youth who were more rejected and/or more victimized were more likely to experience mood symptoms. We found that increases in all three types of peer problems (peer rejection, physical victimization, and relational victimization) accounted for parent-reported mood problems in adopted youth. Thus, it seems that rejection and victimization by peers may be partly responsible for the emergence of mood symptoms in adolescence noted in internationally adopted youth.

Our findings highlight the importance of attending to difficulties with peer acceptance and victimization in youth who experience early institutional care. In future research, it would be helpful to talk to adopted youth themselves to learn from their perspective about their experiences with peers and how these may impact their social and emotional functioning.

Research Opportunities

Self-Control Study

The goal of this study is to understand how we can improve children's ability to control their behavior, attention, thoughts, and emotions. To do this, we will compare two different training programs: one will focus on developing self-control skills with memory and attention games, while the other will use mindfulness-based techniques. We will be offering free classes that take place twice a week for six weeks this summer. Before and after the training period, families will come to the laboratory for a 90-minute research session so that we can measure the effects of the training on children's self-control. You can read about this study in greater detail on the cover story.

If you have a 6 to 10-year-old child who was adopted internationally, your family may be eligible to participate in this study. If you are interested in participating in the Attention Training study, please contact us at 612-624-0321 or by e-mail at SelfControl.umn@gmail.com for more information.



Childhood Language Project

How do early childhood experiences impact adult language development? Participant Requirements: Korean Adoptees between the ages of 18–30 who have not had extensive Korean language experiences.

Time Commitment: Three separate visits to the University of Minnesota campus (parking provided):

- First session = ~2.5 hours
- Second Session= ~3.5 hours (with rest breaks)
- Third Session= ~2 hours

Compensation: \$200 for all three sessions.

Interested? Want more information?

Email koradopt@umn.edu

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RETURN SERVICE REQUESTED

International Adoption Project (IAP) Registry

Be informed about ongoing international adoption research opportunities by enrolling on the IAP Registry.

Families do not have to live in Minnesota, nor do they have to have adopted in Minnesota in order to join. Any family with

a child up to the age of 18 is welcome. To learn more, please contact us at 612-626-8949, email us at IAP@umn.edu or visit us online at www.cehd.umn.edu/icd/research/iap

