



Yale International
Adoption Clinic

YALE INTERNATIONAL ADOPTION UPDATE

Published by the Yale International Adoption Clinic

Winter 2006

GROUNDBREAKING STUDY TO IDENTIFY LINKAGES BETWEEN BEHAVIORS AND THE BRAIN *Inge-Marie Eigsti, PhD*

One advantage to an academic-based program is the research, hoping it will translate into new insights or new treatments that ultimately benefit patients with improved clinical care. Carol Weitzman, MD, Director of the Yale International Adoption program is very pleased to collaborate with Inge-Marie Eigsti, PhD, a new Psychologist at the University of Connecticut. Bringing Dr. Weitzman's clinical expertise in international adoption and prior developmental and behavioral outcomes findings together with Dr. Eigsti's expertise in psychology and brain and cognitive sciences, they hope to understand the impact of institutionalization on the brain and behavioral development in children adopted from foreign orphanages by families in the New England area.

The common ground for the collaboration is developmental-behavioral pediatrics. For Dr. Weitzman, this is a board certified subspecialty held by relatively few pediatricians in the northeast region. Dr. Eigsti received her PhD from the University of Rochester in Clinical Psychology and Brain and Cognitive Sciences and recently completed a research fellowship in pediatric neuro-imaging at Columbia University. While she was at Columbia she participated in a large study of internationally-adopted children, examining how constraints imposed by brain development impact on more complex aspects of cognition and learning, with an emphasis on language acquisition. Complex social and communicative abilities in humans are certainly grounded in fundamental neurocognitive processes; the excitement and the challenge for



research are to make clear the linkages between behaviors and the brain. Learning and memory skills, emotional processing, and behavioral regulation will be assessed. Previous studies suggest that

INFECTIOUS DISEASE INSIGHT



*Michael Cappello, MD
Co-Director*

Multiple national studies have confirmed that international adoptees are at risk for viral, bacterial, and parasitic infections. Our own recent study confirms that international adoptees should undergo careful screening for medical conditions, particularly infectious diseases, soon after arrival in the United States.

In order to compare the published literature with our experience, we reviewed the infectious disease diagnoses for the last 105 children who underwent medical screening at the Yale International Adoption Clinic (YIAC). Roughly one third of these children were adopted from Russia, while another third were from China. The average age was 27 months (range 4 months to 11 years). Our study found that the

living with an adoptive family leads to significant positive changes in these areas and it's believed that the length of time a child has spent with an adopted family may be a protective factor. Criteria for participation in the study include:

- internationally adopted children currently ages 4–11 who have been in the USA for at least one year
- the ability to travel to the University of Connecticut in Hartford. This is where scientifically designed computer-based games will be played with the child and a parent interview and standardized assessment will be conducted.

(continued)

risk of serious infections— including HIV, Hepatitis B, and Hepatitis C— in recent adoptees is very low. Importantly, however, we identified three children with previously undiagnosed congenital syphilis. Fortunately, all three responded to treatment and have a favorable prognosis.

Other, less serious conditions occurred commonly in adoptees, including infection with an intestinal parasite *Giardia lamblia* and the skin infection scabies. We also found that 25% of adoptees had blood test results confirming that they had already been infected with Varicella Zoster Virus, which causes chickenpox. This finding suggests that children older than one year of age should be screened for antibodies post-adoption, as they may not need vaccination.

We are happy to answer questions you may have. To make a screening appointment for a new international adoptee, please call (203) 737-1623.

STUDIES SHOW BEHAVIORAL OUTCOMES ARE POSITIVE



*Carol Weitzman, MD
Director*

An interesting article was recently published in the *Journal of the American Medical Association (JAMA)* by a group of researchers in the Netherlands describing the behavioral outcomes of internationally adopted children. The study was a meta-analysis, which means that data from a number of studies was extracted and combined. A total of 64 articles on behavioral problems were identified, which resulted in examining 25,281 adoptees and 80,260 controls. A total of 34 articles on mental health referrals of adoptees of all ages were found, which included 5092 cases and 75,858 controls. The key points in this study were as follows:

- International adoptees showed more behavior problems than non-adopted controls but the effect sizes were small.
- Adoptees were overrepresented in mental health services and this effect size was large.
- International adoptees were less often referred to mental health services than domestic adoptees.
- International adoptees showed significantly less behavior problems than domestic adoptees including total, externalizing and internalizing behavior problems.
- International adoptees with pre-adoption adversity showed more total problems and externalizing problems than adoptees without evidence of extreme deprivation.
- There was no difference in behavior problems in internationally adopted children who were adopted before 12 months of age with those adopted after their first birthday.
- There were no gender differences in the rates of behavioral problems in international adoptees.
- Children who had been with their adoptive family for more than 12 years showed fewer total behavior problems than children who had been with the family for less than 12 years.
- Behavior problems were less in adolescence than in early and middle childhood.
- Interestingly, in studies of international adoptees conducted in North America, greater numbers of behavior problems were identified.

These findings can be interpreted to suggest that overall most international adoptees are faring well and are well adjusted. It is unclear if the increased amount of referral for mental health services is due to a lower threshold for adoptive parents, schools and society in general and /or greater resources and familiarity with mental health services in adoptive families. It is also unclear whether this higher referral rate in fact did prevent higher rates of behavior problems. Some of the findings of this study were surprising including the lack of relationship between age at adoption and behavior problems, the differences between international and domestic adoptees in regards to behavior problems and the diminution of behavior problems in adolescence. This study helps clinicians begin to sort out which children amongst all international and domestic adoptees may be at the greatest risk for significant behavior problems so that careful detection and referral can be made.

GROUNDBREAKING STUDY *(cont.)*

Parents will receive a report of their child's current language skills and \$40.00 in appreciation for their participation. The sample brochure provides more information and can be made available in waiting rooms. For further details or more brochures please call (203) 737-1623 or visit www.yalepediatrics.org/adoption.

PRE-ADOPTION SEMINARS

THURSDAY, MARCH 30

Yale–New Haven Children's Hospital

7:00–9:00 PM

Conference Room CH201

For more information or to reserve a seat, please contact Carol Coughlin @ (203) 737-1623 or email carol.coughlin@yale.edu

THURSDAY, MAY 11

Greenwich Hospital

7:00–9:00 PM

Noble Conference Center

For more information or to reserve a seat, please contact the Call Center @ 888-305-9253 or (203) 863-4277

Please post the enclosed flyer in your waiting room.

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