

WISCONSIN TWIN RESEARCH NEWSLETTER

Winter 2006

Volume XXXI

Published by: UW Twin Center

Spotlight on Research

Research Opportunities Expand: The Addition of an Early Adolescent Follow-Up



With the participation of families from around our state, the Wisconsin Twin Project (WTP) is continuing to grow. We are excited to announce that we have recently been awarded a grant from the National Institute of Health to begin a new phase of our study. In addition to our research with 2 and 7 year old twins, this new phase will allow us to continue the longitudinal design of WTP by following-up with families when the twins reach 12 to 14 years of age. While this early adolescent follow-up could stand alone as its own study, it is best understood within the context of our toddler and middle childhood assessments.

Over the past eight years, WTP has completed more than 3300 assessments with families of twins. These assessments have provided us with an opportunity to learn more about the genetic and environmental factors influencing the emotional development of twins and have resulted in a number of important findings. One of the richest components of these assessments has undoubtedly been the chance to visit families' homes. During these visits our team of students and staff play emotion-eliciting games with the twins, interview the twins with puppets and talk with parents about their twins' typical behavior. These visits have proven to be a lot of fun for all involved and will continue to be an integral part of our middle childhood assessment.

This new phase of our study will give us the opportunity to once again visit those twins who participated at age 7 and witness the many ways they have changed as they approach adolescence. The goal of our early adolescent assessment, which will also include telephone interviews and questionnaires, is to better understand why some children develop behavioral problems and some do not. To do this, we hope to learn about many different areas of the twins' lives.

Similar to our middle childhood assessment, we are interested in each twin's behavior, temperament, environment and cognitive abilities. Now that the twins are transitioning from childhood to adolescence though, we will be shifting our focus to include a number of new measures that reflect the many changes adolescents experience. Some examples of new measures we hope to include are assessments of the hormones DHEA and testosterone. Collected through saliva, the level of these hormones present in each twin will allow us to determine which stage of puberty the participants in our study are experiencing. Other new measures might ask the twins to tell us about how they spend their free time or how they cope with problems, reflecting the increased independence adolescents begin to experience.

With the inclusion of these and other new measures, the way we collect information will also be different. One of the largest changes families will notice is that this new home visit will be shorter and more age appropriate for an adolescent participant. Instead of playing games like Hungry, Hungry Hippos, some twins will be asked to complete computer challenges or to tell us how they would respond in a number of different social situations. Another change from our middle childhood assessment is an increase in the number of self-reports the twins will complete. This will give them an opportunity to tell us more about how they view themselves and their lives, in addition to their parents' reports. We believe that these and other changes will create an assessment that is enjoyable and informative for all involved.

It is our hope that after reading about this new phase you will be as excited about it as we are! Check out our next newsletter to find out more about our progress and how you can be involved.

GEO Project Update

The Genetics of Emotional Ontogeny (GEO) Project, a longitudinal study of twins' emotional development, has been active for nearly 13 years. Families who participate in GEO have twins born before 2004 and usually live within a one-hour radius of Madison, as there are several visits to our center and the families' homes during the first three years of the twins' lives.

The following is a summary of each visit phase of our project. Most of the families also completed questionnaires at each phase, while some families chose to do only the questionnaires:

- The first visit occurred at 3-months of age at families' homes. One parent was videotaped interacting with each of the babies and a few tasks examining the babies' developing senses were completed. Over 200 families completed this visit. When the babies were 6-months-old, families were invited into the lab to play games that look at the infants' developing personalities. Nearly 300 families completed this phase.
- At 9-months of age, we returned to families' homes to watch the babies in action, as some had already started crawling. We enjoyed visiting nearly 400 families with mobile twins!
- At the one-year mark, families returned to our center to participate in nearly the same games as they did at 6-months, so we could track how the babies had developed over the last six months. Over 450 families participated at this age.
- The next phase of the project consisted of four visits at 19-, 22-, 25-, and 28-months of age. These visits ended in 2002, but well over 200 families completed each visit, and we so much enjoyed meeting all the twin toddlers!
- Our last phase occurs at 3-years-old, when the families are invited back to the Twin Center to complete two visits, one week apart. The first visit resembles the visits the children did as babies, although the games are modified to be age-appropriate. During the second visit, parents share their twin pregnancy and birthing stories, and we look at the twins' cognitive development. So far, over 500 of our wonderful families have enjoyed participating with us in these two visits.

Overall nearly 800 families have participated with us, and we are forever grateful for their generosity!

Wisconsin Twin Project Updates

The Wisconsin Twin Project is a population-based longitudinal study of twins born in Wisconsin. Our goal is to include all of the families who give birth to twins in Wisconsin. The research focus is the genetic and environmental influences on normal socio-emotional development of twins in the family context. We are interested in challenges and risk factors, as well as adaptive processes and competency factors that contribute to child development. We employ a range of research methods, including structured interviews with caregivers, observer ratings, child self-report, home-based behavioral batteries, biological measures of basal and reactive cortisol, palm prints, birth records, DNA samples, cognitive testing, and questionnaires.

The following are descriptions of the different portions of this study.

Toddler Assessment. We attempt to contact all families in the panel for a general interview when the twins are 2 to 3 years old. The assessment consists of a telephone interview with the primary caregiver and questionnaire with one or both parents. Since 1998, we have interviewed over 2000 families with twins at the 2 year assessment.

Middle Childhood Assessment. The 7 to 8 year assessment consists of telephone interviews and mailed questionnaires with the parents, biological sample collections, and 4-hour home visit. We have completed phone interviews with almost 1300 families for this portion of the study. Of those, we have visited 467 families so far; our goal is to visit about 100 families from each birth cohort through 2001.

Early Adolescent Assessment. The 12 to 14 year assessment is a follow-up of those families who completed home visits during the middle childhood assessment. These assessments will begin in the spring of 2007. Please see the front page article for more information.

We attempt to contact all families in this project as they become eligible; eligibility depends on the age of your twins. Your participation is entirely voluntary and you can choose to be as involved as is comfortable for your family. We work to accommodate your family by working around your schedule and allowing different levels of participation, if desired.



Twin Autism Project

We estimate that there are as many as 130 pairs of twins under the age of 18 years in Wisconsin in which one or both twins has autism, or some other form of pervasive developmental disorder (PDD-NOS or Asperger Syndrome). Our research group has great personal and scientific interest in these disorders, and Dr. Goldsmith and Dr. Gernsbacher have received a large grant from the National Institute of Health to begin a twin research study to help understand the complexities of autism.

Thus far, we have located about 100 twin pairs in which one or both has autism or a related challenge; however, this is an insufficient number to do our research. We would appreciate a phone call or email from the parents of any twin with autism (identical or fraternal, boy or girl, regardless of whether the co-twin has any behavioral issues or not) living anywhere in Wisconsin. We would also appreciate our readers mentioning our efforts to parents of twins with autism spectrum diagnoses.

The first phase of our study is a phone interview concerning the child's developmental and medical history. The interview generally takes 45-60 minutes, and we call at a time that is convenient to the family. Families are paid \$25 for their time and effort in participating in this interview. After this initial screening interview we re-contact some families and ask them to participate in further phases of the project, which are also compensated. We would like to know about the existence of all twin pairs in which one or both of the twins might have some form of autism, even if they might not choose to participate in the study. Any interested person should email the staff project coordinator, Shaun Schweigert, at saschweigert@wisc.edu or call him at (608) 262-5574.

Keeping in Touch

Given that your participation is separated by months, and often years, it is likely that your family has moved or your phone number has changed since our last contact. Please keep us informed of changes in contact information so we can continue to include you in our newsletter mailings and calls about different portions of our study.

We Need Your Help!

The Wisconsin Twin Project is committed to having a culturally representative group of families participating in all of our projects. We are looking for families of ethnic minority descent including all African American, American Indian, Asian, Hispanic and other families of twins with diverse backgrounds. Families may be paid for their participation, depending on the project. Spanish speaking staff are available if needed. If you or a family you know may be interested in learning more about this research opportunity please call us toll free at 1-866-230-2560.



Recruitment of Families with Twins



The Waisman Center Research Participation Core recruits families for different researchers within the facility. Staff members at the Wisconsin Twin project have held responsibility for recruiting families with twins since 1994. Beginning with twins born in Wisconsin in 2005, the Waisman Center Research Participation Core (RPC) assumed responsibility for recruitment into our project. The Wisconsin Twin Project continues to handle the recruitment for families with twins born prior to 2005. The differences in recruitment do not affect participation with the Wisconsin Twin Project.

If a family you know had twins in Wisconsin *born prior to 2005* and they are interested in enrolling, please have them contact Nicole Schmidt or Carrie Arneson toll free at 1-866-230-2560 or locally, in Madison, at (608) 265-2674.

If someone you know had twins in Wisconsin *born in 2005 or later* and they are interested in enrolling, please have them contact Susan Vial with the Waisman Center RPC at (608) 263-5192, 1-800-965-9205, or rpc@waisman.wisc.edu.

National Geographic Documentary “In the Womb: Multiples”

Watch a documentary on human twins, triplets and quadruplets, airing Jan. 14th, 2007 at 8 PM ET on the National Geographic Channel. Go to <http://channel.nationalgeographic.com/channel/inthewombmultiples/index.html> for more information

Please let us know if your address or phone number changes.

Email: wisconsintwins@waisman.wisc.edu

Call: 1-866-230-2560 or (608) 265-2674



Visit our website!
<http://psych.wisc.edu/wtp>



Thank You!

As an expert on your own twins, you possess important knowledge. We appreciate the time you take to talk on the phone, fill out questionnaires, and visit with us. Each piece of information furthers research in child development.

We value your input!

DO YOU HAVE COMMENTS, QUESTIONS, SUGGESTIONS OR WANT TO KNOW IF YOU ARE ELIGIBLE FOR PARTICIPATION?

Please call us at 1-866-230-2560 or (608) 265-2674 or email at wisconsintwins@waisman.wisc.edu.

- If your twins are under 3 years old, contact Carrie Arneson
- If your twins are over the age of 3 years, contact Nicole Schmidt.

If you want to relay information to us about your twin or set of twins possibly on the autism spectrum, please contact Shaun Schweigert at (608) 262-5574 or Dr. Goldsmith by email at hgoldsm@wisc.edu.

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