A Big Thank You...

As always, we send a huge thank-you to all families who have participated and continue to participate in the Southern Illinois Twins/Triplets and Siblings Study (SITSS)! None of this would be possible without your participation!

Congratulations!!!

Congratulations to Alex Perry, Erin Boester, and Lulu Abou-Jabal, three of our undergraduate research assistants who graduated from SIU in May! Also, congratulations to our lab coordinator, Riley Marshall, who completed her Master’s thesis project and earned her M.S.! Way to go, everyone!

Congratulations to Kelly McKinness, who received the Sigma Xi Undergraduate Poster award for her work on shyness in twins (see her poster description on page 2)!

Congratulations to Riley Marshall, who received the Sigma Xi Graduate Student Poster award for her poster examining the relationship between perceived parenting and adult self-esteem, based on her Master’s thesis work at Western Illinois University.

A big congratulations to Emma Diaz, who successfully matched for internship! Emma will spend the next year interning at the Vanderbilt Counseling Center. Emma was an integral part of our lab, and she will be missed very much!

New Additions!

We would like to extend a big welcome to our newest undergraduate research assistants, Maggie Schlotter from SIU and Jordan Dunnigan from University of Cincinnati, who are working in the lab this summer! They are both part of the SUPRE (Summer Undergraduate Professional Research Experience) program, a grant-awarded summer program that Dr. DiLalla and two other Psychology faculty (Drs. Fehr and Kibby) are running this summer.

Ongoing Follow-Up Studies!!

We are still excited to ask our 5-year-old twins to return a second time at about age 5 1/2 years for a short visit to play some of the lab games again. Thanks so much to all families that have already done this!

Facebook Page!

If you are on Facebook, please “like” our page and feel free to invite others that you may know with multiples ages 1-5!

http://www.facebook.com/SITSS.SIU
Graduate Project (also presented to Sigma Xi, below)
The Relationship Between Maternal Warmth and Self-Esteem in Preschoolers
We examined the relationship between maternal warmth and children's self-esteem. We found that children whose mothers showed more acceptance and verbal warmth at age 4 tended to have higher self-esteem scores at age 5. Additionally, we found that an increase in maternal verbal warmth from age 3 to age 4 resulted in children having slightly higher peer acceptance scores at age 5. Overall, we found that maternal verbal warmth may be important for the development of self-esteem in children.

Undergraduate Projects
Interaction Between Birthweight Differences and Home Chaos Predicts Differences in Somaticizing Behavior
Lulu M. Abou-Jabal & Riley L. Marshall, M.S.
Advisor: Lisabeth F. DiLalla, Ph.D.
This study examined how birth weight differences, home chaos, and their interaction predict somatizing behaviors (complaints about physical health) in children. We found that in homes with low levels of chaos, the twin with lower birth weight had more health complaints. In a home with moderate or high chaos, the twin with higher birth weight had more health complaints. These findings suggest that, in homes with high chaos, more attention may be given to the smaller twin, and this extra attention may be protective against health complaints.

Evaluating Parental Language Input on Twins’ and Triplets’ Language Development
Alex Perry, Erin Boester, & Matthew R. Jamnik, M.A.
Advisor: Lisabeth F. DiLalla, Ph.D.
This project examined the language abilities of twins and triplets. We coded the language of children and their parents for various types of speech (e.g., speech relevance, turn-type, behavior directedness) that we observed in the laboratory at age 3. Early childhood is a critical period in language development because if language acquisition problems occur at this time, children may fall behind in speaking abilities and cognitive processing. Therefore, by studying differences between twins and triplets, we could compare twins’ and triplets’ language abilities and the influence of their parents’ language use. Results demonstrated that twin children scored higher than triplet children on many types of speech; however, triplet mothers scored higher than twin mothers on many types of speech. These findings indicate unique differences in language development for twin and triplet families.

Are Twins Shyer?: A Study of Shyness Ratings among Twins and Non-Twin Siblings
Kelly McKiness
Advisors: Lisabeth F. DiLalla, Ph.D., & Karla Fehr, Ph.D.
This study examined parent ratings of child shyness and observation ratings based on children’s behaviors during play time in the lab. Findings from this study showed that twins were more shy than non-twins, and also children who were rated by parents as more temperamentally withdrawn were also more shy. However, parent ratings did not correspond with observed child behaviors of shyness for MZ twins, although they did for non-twin siblings, and they did to a lesser extent for DZ twins. This suggests that parent ratings of shyness may be more biased for MZ twins, possibly because parents don’t see their children as shy because they are always playing together.
Symposium, “Gene-Environment Correlations as Critical Influences on Children’s Social Relationships”:
Lisabeth DiLalla organized and chaired this symposium. As part of it, the following paper was presented:

Birth Risk Factors Predict Identical Twin Differences in Exposure to Harsh Parenting
K. Deater-Deckard, Ph.D., L. F. DiLalla, Ph.D., L. Thompson, Ph.D., & S. Petrill, Ph.D.
This paper described research from two twin samples: the Western Reserve Reading and Math Project (WRRMP) and the SITSS. The purpose was to examine whether MZ twins who differed in terms of birth complications would be exposed to different degrees of harsh or sensitive parenting. In the WRRMP, for very premature twins only, the twin who weighed the most experienced less harsh parenting at ages 6-8 years. In the SITSS, similarly, for the most premature twins, the child who had fewer birth complications also received less harsh parenting at age 5. However, for full term twins, the child who had fewer birth complications received harsher parenting at age 5. Because these were all MZ twins, genetic differences cannot account for this. Thus, something about lower levels of birth complications in premature twins either elicits gentler parenting compared to their co-twin even many years later, or parents of premature twins have a pre-conceived notion about the healthier child that leads to gentler treatment.

Presented to the Behavioral Genetics Association (BGA) Annual Meeting, June 2019, Stockholm, Sweden

The Role of Shared Genes Between Hostile Attribution Bias and Delinquent Behaviors in Preschool Twins
Lisabeth F. DiLalla, Ph.D.
Children who assume that someone is acting to hurt them, when it is not clear that is the case, are said to have a “hostile attribution bias.” This has been related to aggressive behaviors, but we know little about it in terms of delinquent behaviors or in terms of genetic influences. This study used 5-year-old children’s scores on a story completion task to measure hostile attribution bias, and parent ratings on rule-breaking at age 5 and again when children were between the ages of 6 and 10 years. Results showed that children with more hostile attribution bias engaged in more rule-breaking behaviors, and this was partly due to shared genetic influences on these two behaviors. Thus, some of the same genes that make children likely to engage in one behavior also make them likely to engage in the other. Also, children who react negatively to others’ behaviors may spend less time socializing and may be at risk for spending more time with other rule-breakers.

Presented to the SIU School of Medicine 29th Annual Trainee Research Symposium, April, Carbondale, IL

Middle Childhood BMI is Predicted by the Interaction Between Preschool Activity Levels and Concurrent Life Stressors
Matthew R. Jamnik, M.A., & Lisabeth F. DiLalla, Ph.D.
This project examined the influence of 4-year-old activity level and major family life events and health behaviors on body mass index (BMI) in middle childhood (ages 7-13). This is important because children today face an elevated risk for negative health outcomes as a result of increased BMI and exposure to chronic stressors. Results showed that age 4 activity level and concurrent stressors were predictive of increased BMI in middle childhood. Interestingly, stressful life events were related to increased BMI only for children who had the highest activity scores at age 4. For children who did not experience these stressful life events, no differences in BMI were seen as a result of earlier activity levels. These findings suggest that children may be identified as at risk for weight problems via observations of heightened activity levels and increased stressors in middle childhood.
New Publication

The Southern Illinois Twins/Triplets and Siblings Study (SITSS): A Longitudinal Study of Early Child Development
By Lisabeth F. DiLalla, Ph.D., and Matthew R. Jamnik, M.A.
Twin Research and Human Genetics, in press, 2019
This article is a presentation of the SITSS that will be published in a huge journal issue that will include twin studies from across the entire world. It is the third such publication and includes some updates on recent studies that we have conducted. We note in this article that we have enrolled 375 twin pairs, 12 triplet families, 1 family of quadruplets, 98 non-twin siblings, and 287 singletons. We discuss that the SITSS has provided evidence for gene-environment correlation effects on aggression and prosocial behaviors, and we also have provided evidence for interactions between certain genes, such as dopamine DRD4, and environments, such as peer victimization, prenatal birth complications, and parent sensitivity.

Meet the Play Lab!

Back row (left to right): Matt Jamnik, Erin Boester, Riley Marshall, Elena Cornelius, Lulu Abou-Jabal, & Kelly McKinnness

Front row (left to right): Alex Perry, Dr. DiLalla, Emma Diaz, Kaylee Fafoglia, Rachel Ewing, Emily Pali, & Riley Warren

[not pictured: Itzy Mendoza, Ciara Beaumont]

Kids Corner: Planning for College

There is a benefit of sending two children (or more) to college at the same time: you are more likely to qualify for funding aid! A recent guide published in the New Yorker may be of some value:


Also, some colleges offer two-for-one scholarships to twins, according to Dr. Nancy Segal (2019), such as Eastern Michigan University and the Kelley School of Business at Indiana University. Additionally, several twins organizations provide an opportunity to apply for scholarships! These include the Twins Day Festival (yearly at Twinsburg, Ohio) and the Illinois Organization of Mothers of Twins Clubs! Check out:

http://www.collegescholarships.org/scholarships/twin-students.htm