



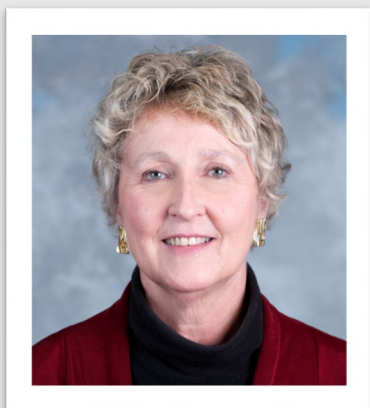
SUMMER 2021 : NEWS FROM

The Gunnar Lab

for Developmental Psychobiology Research



UNIVERSITY OF MINNESOTA



Greetings from Professor Megan Gunnar:

The Gunnar Lab studies stress and its regulation, along with the effect of stressful life events on children's development. What a year this has been for research on stress!

Some of our work had to go on hold while new studies addressing the impact of COVID19 started up.

What went on hold? Like the rest of you, in March 2020 the University went into lockdown. All in-person research was put on hold. In-person research is just now beginning to be allowed again. We were in the midst of an MRI imaging study to identify changes in adolescents' brain activity during puberty in relation to changes in the power of parents and friends to buffer the stress. If you were one of the 35 families we had seen up to mid-March, we don't have much of an update for you, because just within the past month we were allowed to start that study up again. One of our graduate students, Emmy Reilly was finishing phase one of a study with parents and toddlers. The parents had completed questionnaires online and Emmy was just about to start inviting families to come into the lab for a play session. Emmy changed her design to study COVID19 parent-child stress using online questionnaires. She is just now seeing if she can run the play session online over Zoom. My grandson, Patrick and I are going to be practice participants for her. I fear that when I open the computer to go on Zoom, Patrick will only want me to go to YouTube and find his favorite Blippi Excavator video. Could be embarrassing. We were also busy at Children's

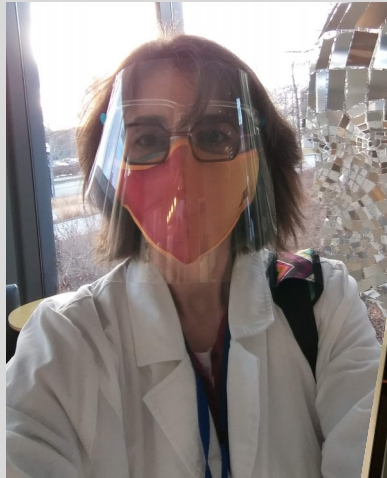
Minnesota well-child pediatric clinics testing whether we can insert a quick and reliable test of executive functions during well-child checkups. This would allow pediatricians to reliably catch children as early as 2 and 3 who will have trouble with attention and self-control when they go to kindergarten. Because these skills can be taught, catching them early could help a lot of children. That study went on hold too. Finally, at the end of March 2021 we got back into the clinic and started up again. For all of the families who have been helping with those three studies, we will have some news for you in the newsletter, but obviously not as much as we had hoped.

COVID19 Studies. Clearly a pandemic that has profoundly affected families is not the time to stop doing research on stress in children and adolescents. In this newsletter you will find what we have learned about what adolescents (15 and 16 years) have experienced during the pandemic that is reflected in their body's stress reactivity. You will learn how mothers of toddlers coped with the stress of the pandemic and the power of self-compassion in helping them deal with pandemic stress. You will hear about how other parents of young children tried to cope with the pandemic and how their coping strategies played out in how much stress hormone they and their children produced. You will also read about how adolescents who were internationally adopted from institutions as infants and young children responded to the stress of the pandemic and whether they fared better or worse than youth who had more supported and protected infancies. We also have some information from a study of somatic complaints of youth, 12- to 14-years, in relation to COVID19 experiences.

On the whole, what we found was very encouraging. Despite a really rough year, our data suggest a tremendous amount of resilience in both children and their parents. We did find some things that were of concern, but for the most part the children and adolescents who helped us in our Covid19 studies were doing remarkably well. We thank them, and all you parents, for taking part in this research work.

RESTARTING RESEARCH DURING COVID19

In-person research has started up again after a year of pause and our staff are prepared with PPE.



Institute of
Child Development

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Gunnar Lab and Staff

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ONLINE EDITION

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THE TODDLER AND PARENT PLAY STUDY

By Emmy Reilly and Julia Kaiser

When the COVID-19 pandemic hit, our team shifted their focus to capture how parents of young children were doing during the pandemic. Because parents have reported high levels of stress during COVID-19 (APA, 2020) and many families have lost their childcare arrangements (RAPID-EC, 2020), we felt it was important to capture parenting stress during the pandemic. We also wanted to measure things that might buffer this stress, like self-compassion. Self-compassion, feelings of kindness and understanding towards your own suffering and understanding your inadequacies without judgment (Neff, 2003), may reduce stress and support parenting (Neff, 2003; Gouveia et al., 2016; Lathren et al., 2020)

In our online survey of 227 parents of 18- to 36-month-olds, 32% said the COVID-19 pandemic was very or extremely stressful for them overall. Surprisingly, the pandemic may not have increased *parenting* stress. The average level of parenting stress in our sample was similar to that of other studies conducted before COVID-19. However, COVID-19 stress was associated with parenting stress, such that parents who found the pandemic more stressful were also likely to report higher parenting stress. Also, 43% reported that they

experienced a change in their childcare arrangements due to the pandemic and many children were not attending any form of childcare outside the home, as seen in Figure 1. Importantly, these childcare changes did not seem to increase parenting stress in this sample.

In terms of self-compassion, we saw a wide range of self-compassion in the parents in this study. And this self-compassion was related to parenting stress: parents with greater self-compassion were likely to report lower parenting stress levels. And self-compassion even seems to reduce the association between COVID-19 stress and parenting stress, as seen in Figure 2. Self-compassion may be a helpful tool for parents of young children during these stressful times.

Loving kindness meditations, a type of guided meditation that involves sending feelings of kindness and caring to yourself and to a series of people, have been shown to improve self-compassion (Galante et al., 2014). If you're interested in trying a loving-kindness meditation, you can find an example 5 minute session here: <https://www.youtube.com/watch?v=VjfCS88Gc7Q>

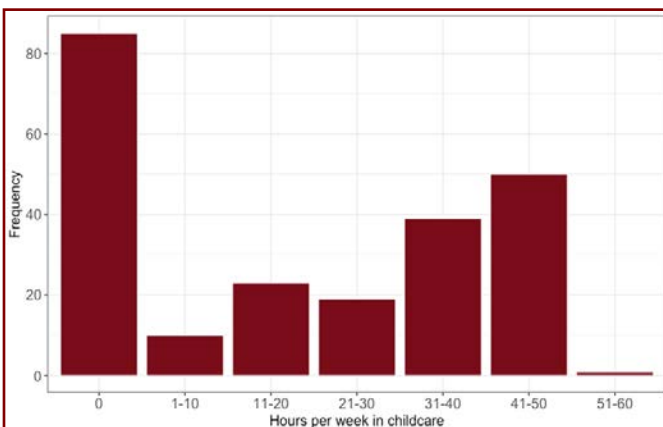


Figure 1. Many toddlers were not attending any type of childcare outside the home during the pandemic.

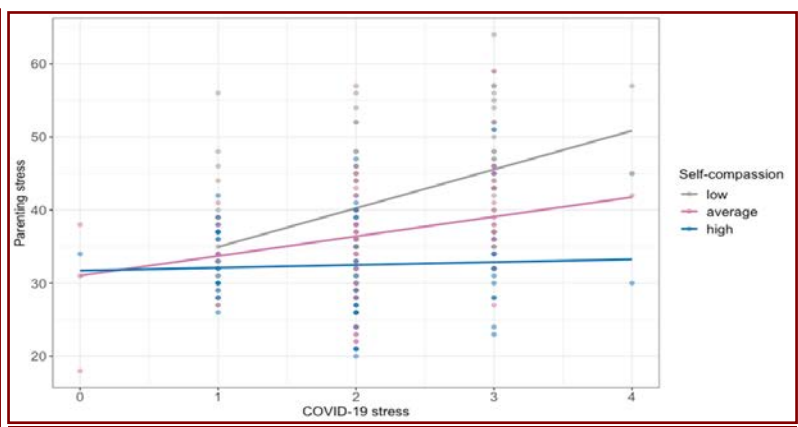



Figure 2. The association between COVID-19 stress and parenting stress is reduced in parents with higher self-compassion (blue line).



Assessing stress reaction reactivity—over Zoom!

By Brie Reid

Life confronts all of us with stressors and challenges. We differ in the frequency and kinds of the stressors we encounter, and how intensely we react. Because individual differences in stress reactivity play a role in our long-term mental and physical health, measuring stress reactivity is common in studies of adults and children. We typically measure how bodies respond to stress by bringing people into the lab, having them perform a speech and math in front of judges, and measuring their stress hormones (e.g., cortisol) in their saliva. This is called the Trier Social Stress Test (TSST), and it is used all over the world in adults, adolescents, and children to understand how people react to stressful situations.

As you know, the COVID19 pandemic changed many of our regular routines, and science was no exception! Our science focuses on stress hormones, but COVID-19 shut downs made bringing people into the lab to measure stress impossible and risky. Thus, many research groups who study stress reactivity have had to stop their research during the COVID-19 pandemic. We decided that it was time to develop a way to measure stress reactivity remotely and completely online! So, we made the

Trier Social Stress Test Online (TSST-OL).

What we did

We had 68 (27 female) 15- and 16-year old participants who helped us validate the TSST-Online (TSST-OL). The participants, judges (one male, one female), and experimenter (female) all joined the stress reactivity assessment from their own homes via the online platform, ZOOM™. We first worked with all of the participants to find a quiet place in their home with good internet connection for the TSST-OL. We trained the participants to take their own saliva samples and we mailed a saliva sampling kit to their home.

Then, we had participants perform a speech and mental math task in front of judges just like participants would if they were in the lab – except all of the task was conducted over video chat. The participants collected their own saliva samples and then mailed the samples back to us.

What we found

We found that stress hormones during the online stress task were similar to what we see in when we measure stress hormones in the lab! Participants also reported feeling stressed during the online

task. Although female participants reported more stress during the task, there was no difference between male and female participants in the levels of stress hormones in their saliva.

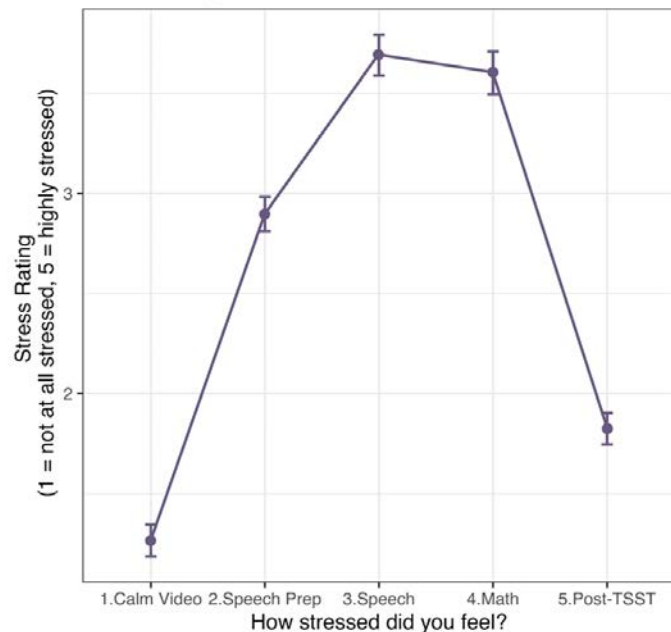
Conclusions

The responses to the TSST-OL are consistent with in-person, laboratory responses among children and adolescents. This is exciting because we have become the first lab to publish a stress reactivity protocol that is collected entirely online that works similarly to stress reactivity protocols in the lab! This means we can measure stress reactivity without needing to bring the participant into the research laboratory. This method will be useful during periods of widespread infection. It should also work to study populations who all live too far from the research laboratory to be assessed in person.

COVID19 Stress and Teenager's Responses to the TSST-OL stress test

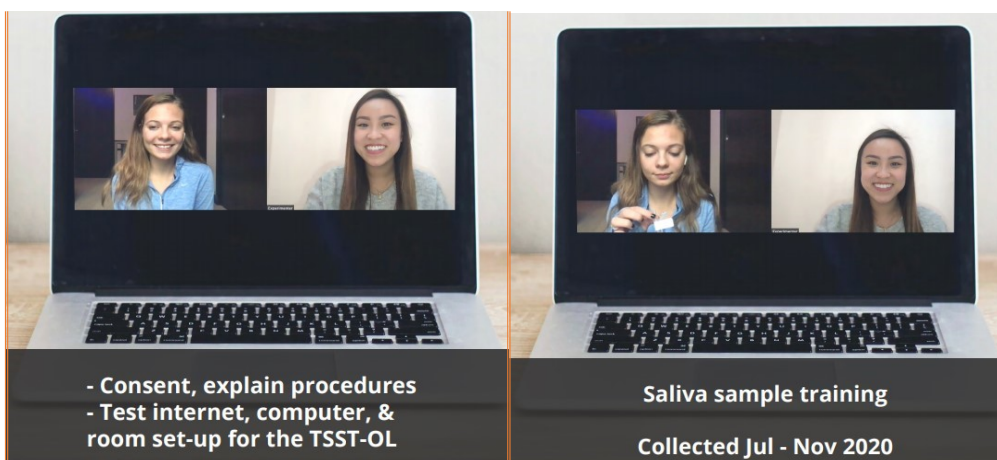
Now that we had a functioning on-line stressor task, we could ask how the pandemic was affecting the stress responses of teenagers. We continued to add youth to our TSST-OL study until we had about 120 kids in the study. We are now examining all the information we obtained from the families about their experiences with COVID19. This included how many friends and family members had

Self Rating of Stress to the TSST-OL



gotten the virus? Did they lose family and friends to the virus? Did the family lose income because of the virus and responses to it? And how had the teenager coped. We have lots of data to wade through, but we do have two findings to share already. First, we started testing teenagers in August 2020 and we finished in January 2021. One of our measures was the teens' reports of how lonely they felt. The later in the year, the higher the reports of loneliness. Let us hope soon that our children can be back with friends without restrictions. The second finding will not

surprise any parent who has been juggling working from home with caring for kids. The more stress parents reported from needing to work from home, the more stress reactive their teen was during our testing. It can be nice to work from home when the kids are at school, but when everyone is home trying to work from home, it is a real challenge for everyone!



Research staff trained participants for the TSST online via Zoom.



Puberty Study Follow-Up: The Still Growing Study

By Bonny Donzella

Good news? We are all in it together!

Early institutional care has been associated with underactive cortisol stress responses, but also with increased anxiety symptoms. Results from our recent “[Puberty Study](#)” showed that through the period of physical maturation, cortisol responses normalize. As the pandemic hit, we couldn’t help but ask: How does this significant stressor affect those youth who were formerly institutionalized but now have “normalized” stress response systems? Have recalibrated cortisol systems been helpful in reactions to stressful challenges?

We invited families back for a fourth assessment, all online, where parent & youth reported on anxiety related behavior and youth sent back a sample of their hair. (Yes, hair. More on that in a bit.) Over 200 families joined in the report. The data were collected between June & October of 2020. We learned a few things.

1. Thankfully, only 10% of our families had any direct experience with the coronavirus in their immediate or extended families. 92% had one or both parents employed and only, 18% reported a loss of income due to the pandemic. While the pandemic has been hard on all of us, we are grateful that the youth in this study seem to be in families that, for the most part, had been spared (at least by the time of our testing).
2. Parents described 29% of the adopted children as being affected a lot or a great deal by the pandemic and all its impact on daily life. This was compared to 17% of the children born into their families.
3. Both groups had more anxiety during the pandemic than we saw 2-4 years earlier. Of course, some of this is being an adolescent, as we see increases in symptoms of anxiety and depression as children move from childhood to adolescence, even without the pandemic.
4. As is typical, girls were described by the parents and reported themselves to be more anxious and depressed.
5. Both parents and teens reported that adopted children had more symptoms of anxiety and depression than did children born into their families. We then asked the youth themselves how much they were worried about pandemic-related effects. The results we found

PARTICIPANTS



—> YOUTH WHO WERE
INTERNATIONALLY
ADOPTED

—> YOUTH BORN INTO
THEIR FAMILIES

were reassuring.

- a. Both groups generally were only somewhat worried to moderately worried about themselves or their family getting the virus. Those who were more worried, though, had low hair cortisol, a pattern seen in chronic stress.
- b. There were no group differences and most teens were not at all or only a little worried about not having enough to eat or enough money, conflict between parents or with parents and siblings, and having to spend a lot of time with family.
- c. Adopted youth were less worried about what school would be

like next year than were the non-adopted youth. But they were modestly more concerned that a parent would lose their job.

- d. For both groups, they were more worried about missing their friends than by falling behind in school. Thus they sound like typical teenagers.

Parents described 29% of the adopted children as being affected a lot or a great deal by the pandemic and all its impact on daily life compared to 17% of the children born into their families.

Now about that hair... If you've been in our studies, you have probably experienced giving us a saliva sample. We measure *cortisol*, a hormone your body produces all the time, but more so in response to a stressful challenge. We can pick it up in saliva. When we experience something as stressful, the brain triggers the body to start producing cortisol, but it takes 20-25 minutes to reach peak in

circulation and another 2 minutes to reach peak in saliva. Handy when we want to measure quick changes over time. But, if we want to know how someone is reacting to a chronic stressor, we can sample hair. The cortisol in circulation gets into our hair. Our hair grows about 1 cm per month and it serves as a calendar of how much cortisol we have been producing. By taking the 3 cm closest to the scalp, we know how much cortisol was produced over the last 3 months. In a demonstration of the remarkable partnership of the families who work with us, over 130 youth sent us back hair samples for this study. The lab looked like a regular barbershop floor as we cut the samples down in preparation for assay. We've just barely had a peek at the data from these assays. The levels we observed are in the normal range for this age group, and we do not see differences by sex or adoption group.

We will continue to explore these data, and are thankful to the families who have participated!

Hair sample photos instructing participants where to cut hair.





Preschool Attention Study

By: Shanna Mliner



Our lab group currently has two studies being conducted in partnership with the community pediatric clinics of Children's Minnesota. The first, the Preschool Attention Study, began in 2018 and is measuring the development of attention skills of children across three years of well-child checkups. We are also seeking to understand how different types of stresses or challenges in the lives of families with young children might influence the development of these skills. Children get better at controlling their attention between the ages of 2 and 5 years. We are developing a growth chart for attention skills that could be used just like the height and weight growth charts pediatricians use. If we can make these charts and they work, then children whose attention skills need strengthening can get help before they start school. To do this, we play a short attention game on an iPad and a language game with a picture flipbook with the children during their well-child appointments. We have also collected hair and saliva samples. So far, we have seen 176 children (thank you to our participating families!), some for two well-child checks a year apart. Due to COVID-19 safety protocols for both the University and the pediatric clinics, our study was on hold from March 2020 until March 2021. We used the time during the data collection pause to process data, do preliminary analyses and publications, and keep in touch with our longitudinal participants. We are so glad to be back with our participating families in the clinics now for this study to get a second or even a third time-point of information for our growth charts of attention skills.

The goal of our second project, the Baby Behavior Study, is to create a new screening tool for future use in pediatric clinic settings to help pediatric practitioners identify young children who are struggling to use their parent as a secure base. This identification might lead to a discussion between parent and pediatrician and possibly to additional support

services or referral. With this screener we are not attempting to classify attachment status, but rather to provide a screening tool of clinical relevance to healthcare providers as they work with caregivers and toddlers in well-child visits (between 12-24 months). Our study team first conducted an extensive review of the existing literature and related tools

already in use. We then created 23 potential items for which to seek input from pediatric clinicians and staff working directly with families in clinic settings. Nineteen pediatric clinicians from across the country graciously offered feedback by participating in Zoom discussion groups and completing written feedback forms, even in the midst of the health care crisis during this pandemic. Next, we created an online survey with our reduced and revised 14 potential screener items to seek feedback from clinicians and scientists with expertise in the field of attachment research. Again, we were in awe and so very grateful for the response we received with 28 experts in attachment research from around the world taking the time to offer invaluable feedback with ratings of how much the potential items reflected concerns about attachment security, suggestions for phrasing, and general implications of using this screener. Our study team has now developed a final version of the screener containing 8 items. The pandemic has delayed our ability to assess the screener's validity by comparing it to a commonly-used and validated observation tool (the Attachment Q-sort) in a study of children aged 12-24 months attending well-child visits. However, this is our next step and we remain hopeful to be able to begin data collection as soon as social distancing and masking no longer are needed. We want to extend sincere thanks to our collaborative partners at Children's Minnesota and all the families that have participated.

Best wishes from our study team,

Dr. Megan Gunnar, Dr. Michael Troy, Shanna Mliner, Bao Moua, Emmy Reilly, & Hannah Shryer

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Adolescent Stress in the Time of COVID19

By Hope Thilges

Somatic complaints, such as headaches, abdominal pain or fatigue, are thought to be related to internalizing symptoms (anxiety or sadness), however not much is known about how the diurnal cortisol rhythm is associated with these symptoms. Cortisol is a stress hormone, which can be found in saliva, and can be useful in understanding the underlying neurobiology of the body's stress response system. This study aims to measure saliva cortisol in adolescents in attempts to identify diurnal cortisol patterns in relation to high and low reports of somatic complaints and internalizing symptoms while measuring the additional life-event stressors such as the Covid-19 pandemic, to better understand how experiencing massive life changes that are occurring on a global scale may relate to underlying neurobiological responses.

Who participated? 97 youth ages 12-14 completed an online survey reporting on their physical pain, anxiety related behaviors, and their health during the Covid-19 pandemic. Sixty-two youth also collected saliva samples over a period of three days and reported on their daily activities such as sleep, food intake, and stressful events.

We are still collecting data for this study, however, our preliminary findings from the self-reported survey show that 66% of youth reported some exposure, whether to themselves or family and friends, and whether diagnosed or suspected infection to Covid-19. Youth who reported having had some exposure to someone with COVID-19 displayed more worry or concern about COVID-19 than did those with no exposure. There was a significant difference between exposure groups on worry $t(94) = -2.38, p = .02$, ($M = 2.21$ for unexposed, $M = 2.44$ for exposed). There was no difference in the change of emotion between the exposed and unexposed groups ($M = 3.29$ for unexposed, $M = 3.34$ for exposed). From this we gather that the COVID-19 variables (exposure, worry) behave as expected, and will be useful when examining relationships

between pain and cortisol, as seen from the context of the pandemic.

An index of *worry or concern* about COVID-19 was computed from 41 items, with good scale reliability, $\alpha = .86$. This scale ranged from 1 (not at all) to 5 (extremely worried), and included questions such as "Since the start of the Coronavirus/COVID-19 outbreak, how worried have you been about being

infected?". Likewise, an index of *change in negative emotion* since the pandemic was computed from 10 items, with good scale reliability, $\alpha = .82$. This scale ranged from 1 (large decrease) to 3 (no change) to 5 (large increase) and included questions such as "Compared to before the COVID-19 outbreak, how lonely are you?". Youth rated their own behavior tendencies on the MacArthur Health Behavior Questionnaire (Essex et al., 2002) and from that, an index of *internalizing* was computed, (36 items, $\alpha = .94$). High values on internalizing reflect greater depression and anxiety symptoms, although this is not a clinical diagnosis. Youth also reported on somatic complaints in two questionnaires: "Pain Questionnaire" (5 items, $\alpha = .75$, range 1-8), and "PHQ15" (14 items, $\alpha = .79$, range 0-28). These questionnaires included questions such as "During the past 4 weeks, how much have you been bothered by stomach pain?" or "In the past 7 days, how often have you had aches or pains?". These were reasonably correlated ($r = .54$), so were standardized and averaged to create an index of *pain*.

Next, reports of pain were examined in relation to youth reports of internalizing. Youth reporting greater somatic symptoms also report greater internalizing, $r(86) = .57, p = .0001$. This lines up with expectation, as somatic complaint questions are present in the internalizing index. This correlation was unaffected by COVID-19 exposure status, sex, or age. Again, this preliminary finding reassures us that we have variables that are functioning as expected, and will be useful when data collection is complete and cortisol has been assayed.

We plan to report more after assaying the saliva samples in hopes of better understanding the relationship of diurnal cortisol rhythm to somatic complaints and internalizing symptoms. Thanks to all the families who participated.

Development and Well-Being of Korean Adoptees

By Rich Lee

We are happy to announce the completion of our 12-year follow-up study of Korean adoptees! In 2007, your family may have participated in a survey study on the Development and Well-Being of Korean Adoptees, conducted by Dr. Richard Lee in the Department of Psychology at the University of Minnesota. In 2014, we followed up with roughly half the families whose children were now adolescents. Twelve years later, in the 2019-2020 academic year, we followed up with 146 Korean adult adoptees and 195 of their parents for a successful third wave of data collection.

Today, all the Korean adoptees are young adults. Some are in college, others are beginning their careers, and a few have started families. This 12-year longitudinal study provides a unique opportunity to study how cultural, ethnic, and racial experiences during childhood and adolescence can play a role in adult adjustment.

Similar to the 2007 and 2014 studies, we asked questions about their Korean heritage culture, experiences with discrimination and racism, interest in and search for birth family, family relationships, psychological adjustment and overall well-being (see Figure 1). In 2019-2020, we asked more questions about genetic testing, family relationships, their experiences with adoption and the adoption community, and career development. We also asked about their experiences with COVID-19 (see Figure 2).

Topics Studied in 2007, 2014, & 2020

- Emotional Well-Being
- Mental Health
- Cultural Socialization
- Parent Child Relationships
- Adoption Experiences
- Birth Family Thoughts
- Ethnic Identity
- Genetic Testing

Figure 1. Topics in previous survey.

Now that data collection is complete, we are organizing all three waves of data and will soon analyze the data. With this new wave of data, we will continue to examine how issues of race and ethnicity affect the development and mental health of Korean adoptees. We also will examine levels of interest in different forms of genetic testing to uncover biological family health history and find birth family relatives. We hope to expand our knowledge about this relatively new technology and its role in the adoptive families.

Thanks to all families who participated in this study.

We will have results available to share in the upcoming year. To our knowledge, it is one of the longest longitudinal follow-up studies on international adoptive families. This work is not possible without the continued support and participation of adoptive families.

UPCOMING PROJECT

POST-COVID19 SURVEY OF KOREAN ADOPTEES

Given the impact of the COVID19 pandemic in 2020, we are planning a follow-up survey for Korean adoptee participants.

We will be compensating participants with a gift card. If you are interested in participating, please email us

at koradopt@umn.edu.

New Topics for 2020

- Adoptee Identity
- Genetic Testing (expanded)
- Adoptee Community Involvement
- Career Clarity
- COVID-19
- Parent Child Relationships as Adults
- Sibling Relationships

Figure 2. New topics in 2020 survey.

CARDIOVASCULAR HEALTH STUDY

PARTICIPANTS & THEIR
FAMILIES WILL BE
COMPENSATED FOR
THEIR TIME.

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RECRUITING 12-18 YEAR OLDS



PARTICIPATE IN A STUDY OF THE EFFECTS OF
STRESS ON CARDIOVASCULAR HEALTH.

WE ARE RECRUITING TEENS BORN INTO THEIR
FAMILIES & TEENS INTERNATIONALLY ADOPTED
INTO THEIR FAMILIES



THE STUDY INVOLVES ONLINE QUESTIONNAIRES
AND 2 HEALTH CHECKS WITH RESEARCHERS AT
THE UNIVERSITY OF MINNESOTA.

AT EACH VISIT WE WILL MEASURE BODY
COMPOSITION & CARDIOVASCULAR HEALTH.

PHYSIOLOGY OF INTERACTING WITH PEOPLE RESEARCH STUDY

Recruiting 18—25 year old

ARE ONLINE INTERACTIONS STRESSFUL?

- Participate in a research study about how the body responds to giving an online presentation
- The study involves online questionnaires, an online ZOOM™ session, providing saliva samples and wearing a heartbeat detector.
- Participants will be compensated for their time and effort

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Five Recommendations for Parents to Seek Out For Their Child with a History of Adoption

By: Kimara Gustafson MD, MPH, Erin Bocock, Judith Eckerle MD

At the Adoption Medicine Clinic (AMC) at the University of Minnesota, we are usually asked by parents of adopted children questions like, “is this normal X year old behaviors or is this related to their history of trauma, substance exposure, etc.?” Or we might hear, “what are some things I should be on the lookout for as they grow, given their early life history?” These are all great questions, and we always start off by saying that just the fact that you’re asking questions is a sign that you’re on the right track in terms of parenting. For all of these questions and to best address these concerns, we recommend that your child be seen for a comprehensive post-adoption assessment. Given that children who are adopted are at a higher risk for medical, developmental, dental, and mental health concerns, here are five recommendations for parents to seek out for their child with an adoption history:

1. **Medical Assessment:** Children adopted are at a higher risk for infectious diseases, substance exposure, an inconsistent immunization record, and malnutrition among other medical concerns.¹ It is important to have your child assessed head to toe by a medical professional who has experience working with children who have a history of adoption as they have experience knowing which medical conditions to look out for and what diagnostic testing should be completed. A comprehensive assessment can optimize your child’s physical health and nutrition, as well as prevent any future health problems. An adoption competent medical professional can help you understand how your child’s history of adoption might play into their behaviors, development, and

physical health. Parenting a child with a history of early adversity can be different in terms of guidelines and recommendations that a general pediatrician may not be aware of. The provider will be able to create a roadmap for next steps such as referrals to neuropsychology, endocrine, genetics, audiology, ophthalmology, etc., as adoptees are at a higher risk for precocious puberty, vision problems, and hearing loss.

2. **Mental Health Assessment:** It is possible your child experienced toxic stress in utero or prior to becoming a part of your family. This stress can affect the way your child’s brain reacts to their environment, resulting in physical and emotional issues as your child ages. Research has shown that children who are adopted are at a higher risk for adjustment problems, externalizing behaviors, conduct disorders, and attachment disorders.² Early intervention and caregiver support is key, and the earlier these behaviors are recognized, the better for the child and for the family. Watch for warning signs in your child such as difficulty regulating emotions, not seeking out a parent/guardian to express needs, persistent trouble falling asleep, or difficulty building healthy relationships with peers. We recommend that all children with a history of adoption have a needs assessment with an adoption competent mental health professional, but especially if you are seeing any early signs of dysregulation. Remember, it is okay for you as the parent and family to seek out mental health if you are feeling overwhelmed or if you need guidance or support. Putting on your own “oxygen mask” first, means

you will be better able to support your child.

3. **Developmental Assessment:** Risk factors that can be present in kids with a history of adoption can affect your child's speech, learning, sensory processing, coordination, and strength. This can play into everyday activities like tying shoes, writing, ability to self-regulate, eating, and sleeping. Children who are internationally adopted are almost always delayed in at least one developmental area and almost fifty percent have a global delay.¹ A developmental screening that takes in account early life stress, can be completed by a medical provider, occupational therapist, or physical therapist to help you understand areas in which your child's development shines, and areas where it needs extra support. Referrals to speech therapy, occupational therapy, and physical therapy can help with your child's developmental needs.

4. **Prenatal Substance Exposure Assessment:** The children that we work with from adoption and foster care are at a greater risk for prenatal drug and alcohol exposures. Whether the exposure is known or if there is a suspicion, a screening for Fetal Alcohol Spectrum Disorder (FASD) is recommended. A medical provider trained in screening for FASD can do an initial evaluation and recommend further testing, if needed. The earlier the diagnosis, the earlier your child can have the correct resources to help them succeed.

5. **Dental Assessment:** Research has shown that children who have a history of adoption are at higher risk for delayed dental exams and may have poorer dentition and more dental and health problems related to unaddressed dental needs. A pediatric dental provider is able to gather background information to help guide any further recommendations regarding establishing optimal

dental health and care, as well as partner with other specialists (such as occupational therapy, mental health providers or speech therapy) as needed if there are other concurrent issues that are negatively impacting dental health (such as teeth grinding from high anxiety or struggles with teeth brushing due to sensory input dysregulation).

Frequently, your child's physical, developmental, and mental health influence one another. In order to optimize a child's attachment and emotional wellbeing, it is important to rule out issues from multiple angles so that your child can reach their full potential. It is important to find a team of professionals that will work together in order to provide the best care for your child. If you are in the Midwest, or open to travel, consider making an appointment at the AMC for a comprehensive child wellness assessment.

For more information about the Adoption Medicine Clinic visit: <https://www.adoption.umn.edu> or call 612-624-1164

References:

1. Jones VF, High PC, Donoghue E, et al. (2011). Comprehensive Health Evaluation of the Newly Adopted Child. *Pediatrics*. 2012; 129(1):e214-e223. <https://doi.org/10.1542/peds.2011-2381>
2. Bramlett MD, Radel LF, Blumberg SJ. (2007). The Health and Well-being of Adopted Children. *Pediatrics*. 2007; 119(Supplement 1):S54-S60. <https://doi.org/10.1542/peds.2006-2089i>



PARTICIPATE IN RESEARCH



CAAL
Coalition of Asian
American Leaders


CLINICAL AND TRANSLATIONAL
SCIENCE INSTITUTE
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Driven to DiscoverSM

Invisible No More: Understanding the Experiences of Racism and Coping of Asian American Youth During COVID-19

The Coalition of Asian American Leaders (CAAL) is looking for Asian American youth to complete an online survey in partnership with Children's Minnesota and the University of Minnesota to help us better capture the experiences and realities that youth are experiencing with racism.

In the face of COVID-19 the rise of anti-Asian discrimination and violence has continued to hurt Asian American youth, including internationally adopted Asian American youth. We are committed to ending racial violence, and envision a world where our students are seen, accepted, and celebrated for being their full selves. We are continuing to survey Asian Minnesotan youth (ages 14-17) living in Minnesota. Please consider taking the survey and sharing with other youth that you may know.

Sign up at: bit.ly/CAALYouthSurvey

MRI Study of Stress and Social Support

We are conducting in-person sessions again!

Participant eligibility:

- ☒ Youth who are between 11-14 years old.
- ☒ have never done this speech/math task in any study
- ☒ have no metal in the body that they can't be taken off before going in the MRI scanner.



We invite you to two sessions. The first is all online for consent & surveys. The second happens at the University, where youth will have an MRI while giving a speech/performing math. Heart rate and saliva samples will be collected to measure stress hormones. Parents receive a \$10 e-card per visit, and youth receive \$30 & \$40 e-cards for visits. **Please email us at socialbuffering@umn.edu if you would like to participate.** Thank you and we're looking forward to hearing from you soon!

Remembering Carrie

The Gunnar Lab is heartbroken by the loss of Carrie DePasquale. She graduated from the University of MN's Institute of Child Development PhD program and was on her way to Pennsylvania State University for a post-doctoral fellowship. Carrie was a great scientist dedicated to helping children and families. Her legacy will live on through a scholarship created in her name for first generation PhD students. To donate: give.umn.edu/giveto/depasquale

Dr. Carrie DePasquale Memorial Scholarship



It takes a lot of hard work and dedication to earn a doctorate in Developmental Science. It takes a lot of hard work and dedication to fight for social justice and affect change in the community. It takes a lot of hard work to be a caring friend who is always there to support you and challenge you. Dr. Carrie DePasquale managed to be all three of these things: a scientist, social activist, and supportive friend all at the young age of 26. Tragically, this bright star did not burn long enough. She passed away suddenly due to an undetected medical problem on September 12th, 2020.

Carrie accomplished more before the age of 30 than most do before they are 50. As a first-generation college student, she won prestigious awards in her field, was advised by two of the leading scholars in the field, Drs. Ann Masten and Megan Gunnar, published 15 empirical papers, trained on a T32 grant directed by Dr. Dante Cicchetti, received a prestigious F32 grant from NICHD on her first submission, and started a postdoc with Dr. Erika Lunkenheimer at Penn State with her eyes set on the next steps of her career. To say she was a role model for early career scientists would be an understatement.

Carrie knew, more than most, the importance of supporting her community and advocating for others. In her limited free time, Carrie volunteered at the Greater Minneapolis Crisis Nursery, where she helped care for children, cook meals, and clean toys. She also applied her academic talents to create a child behavioral tool for helping Nursery staff to evaluate whether their programs are working. Carrie did not shy away from going the extra mile to help families in need.

The Dr. Carrie DePasquale Scholarship recognizes the challenges that first-generation Ph.D. students face. It will serve to carry on Carrie's legacy of academic rigor, social responsibility, and joy. We hope that every year the recipients of this award will remember to enjoy the little things in life, spend time with friends and family, and apply their academic research to improve the lives of children and families.

To donate: give.umn.edu/giveto/depasquale

GUNNAR LAB

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Professor finds many reasons to give back

For nine years, Regents Professor and Distinguished McKnight University Professor Megan Gunnar was the director of the Institute of Child Development (ICD). Her tenure marked a period of time for belt tightening, because of college budget cuts. And because of this, the Minnesota Symposium on Child Psychology was threatened.

"It's one of the famed things from ICD and very important for the culture of the institute," she says. "It has been one of the leading symposiums in developmental psychology in probably the world."

For decades, the symposium has been bringing together leading lights in the field to deliver papers, meet with each other, and advance the footprint of the field. To help keep it going, Gunnar began giving to the college's general fund with the idea that the money could be used in support of the symposium. Thanks to Gunnar's efforts, and from many others, they symposium has continued on. It last took place

in 2019 with a focus on early life adversity, stress, and neurobehavioral development.

More recently, a tragic event inspired Gunnar to think bigger about giving. Dr. Carrie DePasquale (pictured, below left), a May 2020 graduate of ICD, died suddenly from an undetected medical condition four months later on September 12. "She just started her post doc," Gunnar says. "Just an incredibly brilliant young woman."

Gunnar wanted to establish a scholarship in Carrie's name. One of the challenges, she says is that there has to be a certain amount of money involved to have a named scholarship. "We were going to have it in a general scholarship fund because it was not going to be large enough to be named," Gunnar says. "I thought, 'No way. I want Carrie remembered down the years and have students know her.'"

The call went out and soon generous gifts from many of her peers began pouring in. "She had touched many people," Gunnar says. "She was sweet and loved."

Because Carrie was a first-generation student, her scholarship will help other first-gen PhD students. "It will help them go to meetings and help with their summer salary," Gunnar says. She says first-generation students typically come from working-class backgrounds, so there usually is not a lot of money to draw from to enter doctoral studies. That's why this scholarship is so needed.

"It's important to give back," Gunnar says.

- KEVIN MOE, published in CEHD Connect, Spring/Summer 2021 edition

