

## **Research Statement**

One of the most longstanding questions in the field of developmental psychology is whether early experiences with parents and other caregivers have a lasting influence on individuals' development. Although this question has received extensive theoretical and empirical attention, many issues remain unsettled.

### **Previous and Current Research**

One source debate in this field is whether early parent-child relationships contribute to competent adaptation across the entire life-course or whether the consequences of early caregiving experiences being less influential over time as individuals encounter other influences, such as relationships with peers and educational opportunities (Clarke & Clarke, 2000; Kagan, 1996). My colleagues and I used data from a longitudinal study that prospectively followed participants from birth to adulthood to demonstrate that individuals who experienced supportive care during the first three years of life are at lower risk for mental health problems during adulthood and are more likely to provide high quality parenting several decades later. In addition, we provided evidence that individuals who experienced supportive early caregiving are more likely to form committed romantic partnerships and have higher educational attainment during adulthood. Importantly, the consequences of early caregiving for these outcomes did not fade with time. Indeed, the effects of early supportive caregiving for individuals' social and academic outcomes during childhood were as strong as the effects three decades later.

Another issue in the field that remains unclear is precisely how early caregiving experiences may have long-term effects on developmental adaptation across the entire life-course. Guided by attachment theory (Bowlby, 1988), one potential mechanism I have focused on is individuals' mental representations of close relationships. My research has provided evidence for several of the central claims of attachment theory, including the notion that attachment security has its origins in childhood experiences with caregivers, that individual differences in attachment security exhibit stability across development and across generations, and that attachment-related representations shape individuals' functioning within close relationships. In addition to these substantive issues, I have also addressed psychometric questions related to the measurement of attachment, including whether individual differences in attachment are most accurately captured by a set of dimensional constructs or the traditional attachment categories.

A second potential mechanism that I have investigated is the physiological processes that facilitate individuals' responses to threats and stressors. Consistent with idea that early caregiving experiences exert a long-term influence on health and development by becoming biologically embedded in key stress response systems (Shonkoff, Boyce, & McEwen, 2009), my research has demonstrated that individuals with histories of less supportive caregiving or insecure attachments early in life exhibit greater autonomic nervous system reactivity during interpersonally stressful situations later in life. In addition, I have worked with graduate students here at the University of Utah to test whether early experiences of adversity have lasting consequences for the functioning of the neuroendocrine systems among children adopted internationally and whether the formation of secure attachments can promote healthy neuroendocrine functioning among this unique group of children.

Another third unresolved question in this field of research is whether the correlations between early caregiving experiences and individuals' functioning reflect a causal effect of parents' behavior on children's outcomes or whether the associations are due to other, unmeasured variables, such as genetic factors shared between parents and children or families' socioeconomic environments (Kagan, 2010; McGue, 2010). To test this question, my colleagues and I have leveraged experimental data from randomized controlled trials of a parenting-focused intervention. Our research has shown that children of parents who received an intervention that focused on improving parents' supportive care exhibited advanced language development, enhanced executive functioning abilities, and more typical patterns of biological regulation than children whose parents received the control version of the intervention. These findings lend support for the idea that early caregiving has causal effects on children's behavioral and physiological functioning.

### **Future Research Plans**

I am extending my research identifying the mechanisms that underly the effects of early caregiving through a collaboration with Elizabeth Conratt and Sheila Crowell. Specifically, I am a Co-Investigator on a NIMH-funded longitudinal project. The overall goal of the project is to examine the intergenerational transmission of emotional dysregulation among a group of nearly 300 mother-infant pairs. This collaboration offers me the opportunity to investigate how early caregiving experiences shape infants' behavioral development, emerging attachment representations, and physiological responses to stress. The first wave of data collection was completed during summer 2020, and I am working closely with members of our research team—including graduate students from Developmental and Clinical Psychology and a post-doctoral researcher—to prepare conference submissions and manuscripts based on these data.

I have also begun to research the development of children who have been adopted. Research with adoptive families afford a unique opportunity to disentangle the effects of early caregiving experiences independent of potential inherited genetic factors or prenatal influences (Rutter, Pickles, Murray, & Eaves, 2001). As a first step in this line of research, my research team and I have collected survey data from over 250 parents living in Utah who recently adopted an infant. This project has established the feasibility of conducting research with adoptive families in Utah. My research team and I have presented findings based on this data at international conferences and are actively preparing manuscripts involving these data. In addition, these survey data will serve as pilot data for a grant application to the National Institute of Child Health and Human Development for a project examining the role of the early caregiving environment for shaping the early biobehavioral development of adopted children.

Finally, I have partnered with a community mental health organization (The Children's Center) to implement an evidence-based home visiting intervention here in Salt Lake City. This partnership will allow me to extend my earlier research examining the effects of the caregiving environment on children's early behavioral outcomes. This parenting-focused intervention is still being offered remotely to parents during the COVID-19 pandemic, and we will be submitting a grant application to the National Institute of Mental Health to support the evaluation of this community-based implementation of the intervention in the Salt Lake area.