

Karina Shreffler, PhD

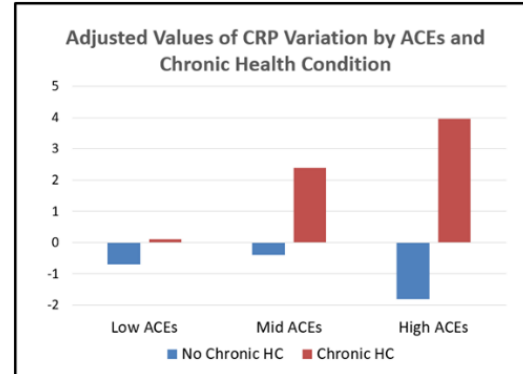
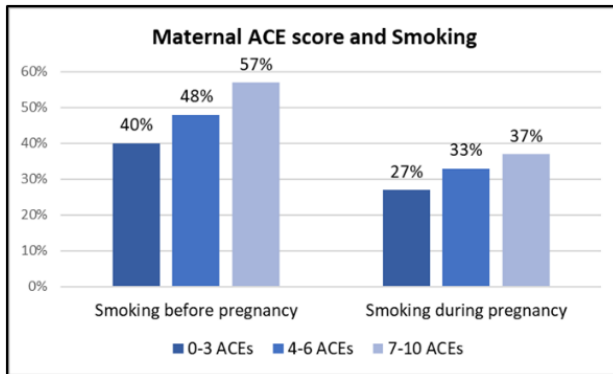
Trained as a survey researcher and family demographer, I am a Professor in the College of Nursing at OUSHC. In my research, I focus on **maternal and child health**, with an emphasis on maternal mental health, reducing maternal substance use, and promoting early maternal/child bonding to enhance infant developmental outcomes. My doctoral training and program of research have been supported by the National Institute for Child Health and Human Development (NICHD), National Institute of General Medical Sciences (NIGMS), and the National Institute of Drug Abuse (NIDA). In addition to direct grant support, I regularly utilize federally-funded datasets in my program of research.

Primary research questions of interest:

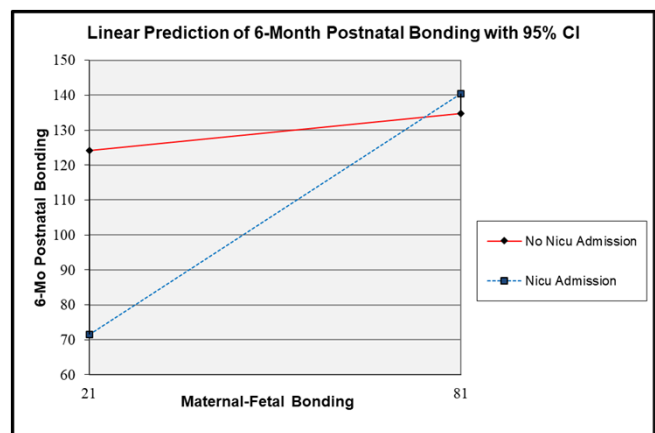
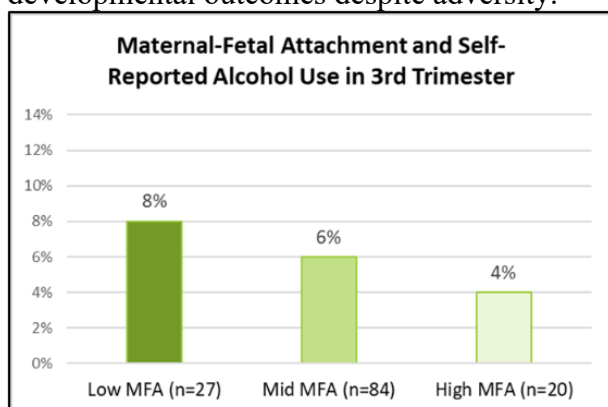
- What are the social stressors that impact women’s health and wellbeing during pregnancy, and how can we reduce the impact of those stressors to improve maternal and child health?

Selected Findings: Stressors and the Protective Role of Prenatal Attachment:

Childhood adversity has long-lasting impacts for maternal well-being during and after pregnancy. With funding from NIGMS from 2016-2021, I recruited nearly 200 women in Oklahoma at their first prenatal visit and followed them for three years. The goal was to determine how maternal adverse childhood experiences resulted in risk for adverse birth outcomes and early infant development. Findings suggest both **behavioral and physiological pathways**.

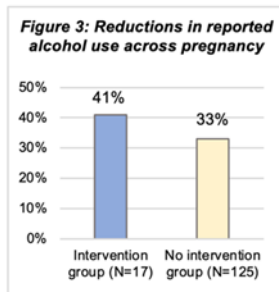


I also noticed that when the moms in the study had higher prenatal attachment (often called maternal-fetal attachment (MFA) or bonding in the literature), they had better birth and developmental outcomes despite adversity.



I then used the findings to **develop and test an intervention** to enhance MFA through a mix of attachment-based parenting activities and mindfulness-based stress reduction activities (funded by the Oklahoma Center for the Advancement of Science and Technology). This intervention, called **BLOOM** (**B**abies and **M**oms connected by **L**ove, **O**penness, and **O**ppportunity), is delivered via cellphone for accessibility.

The study is ongoing, but early data suggests that the intervention significantly increases MFA and in turn reduces alcohol use during pregnancy.



My work on maternal prenatal substance use is also currently supported by NIH through the **HEAL Initiative** (“Helping to End Addiction Long-Term”; NIDA U01DA055349). I serve on the recruitment and retention arm of the Oklahoma site, which will recruit 390 mother/child dyads to study how prenatal substance exposure impacts child development using brain scanners and developmental assessments across a 10-year period.

We will launch data collection in late spring 2022, but we are busy working on developing protocol, securing research approvals, and training the research team.



Hardesty Center for Clinical Research and Neuroscience, Tulsa

Pregnant women who feel more attached to their babies engage in healthier behaviors. Our study tests an intervention designed to enhance maternal prenatal bonding.

OUR INTERVENTION FOCUSES ON THE DEVELOPMENT OF THE MOTHER-FETAL RELATIONSHIP

MOST PARENTING INTERVENTIONS START AFTER BIRTH

BLOOM Video 1

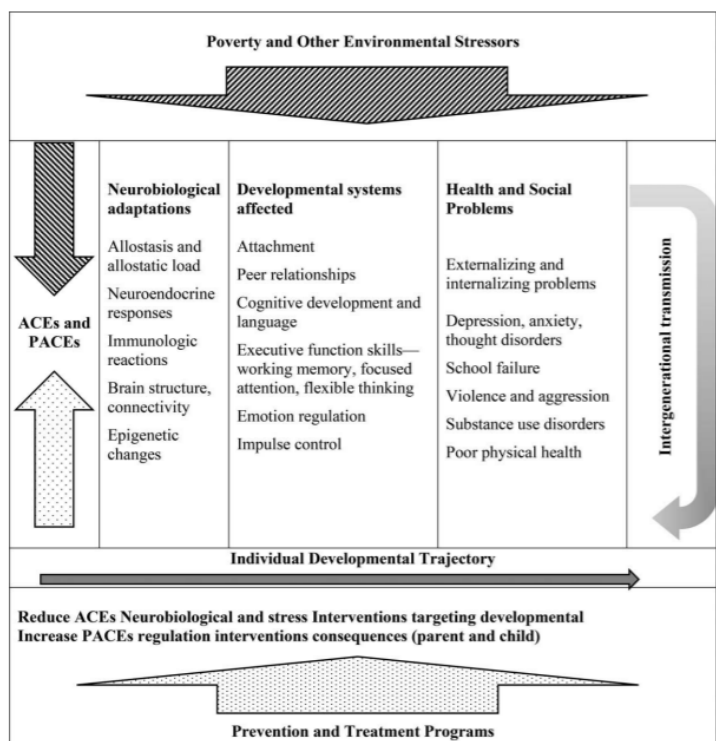
INTERVENTION GROUP

PARTICIPANTS IN THE TREATMENT GROUP ENGAGE IN A 2--WEEK INTERVENTION USING EXPLAINER VIDEOS

I can learn to slow down and calm down for me and my baby



Figure 1
Intergenerational and Cumulative Adverse and Resilient Experiences (ICARE)



Guiding conceptual model developed by Oklahoma HEAL collaborators and published in the February 2021 issue of *American Psychologist*