

Research Interests

In the United States, the time from an infant's conception through the first year of life is host to two public health crises: the current rate of infant mortality and maternal mortality. At an average of 5.7 deaths per 1000 live births, the U.S. infant mortality rate is exacerbated when compared to other countries with similarly developed economies (CDC, 2018). Similarly, maternal mortality in the U.S. was recently ranked last among similarly developed countries, at a rate of 17.4 per 100,000 pregnancies (The Commonwealth Fund, 2018). Research has demonstrated that the reasons for this state of affairs is unequivocally traceable to social determinants of health, making social work an ideal leader to drive the necessary changes in policy and practice to improve maternal-child health.

My research is focused on one common factor underlying these crises: namely, the role of trauma and its psychological repercussions. Trauma and mental health are actionable targets for prevention and intervention that could result in meaningful differences with regard to maternal and infant mortality. Trauma and substance use disorders as well as trauma and suicidality are known to co-occur, and a substantial portion of the maternal mortality rate each year is comprised of deaths due to overdose, drug-related deaths, or suicide (Goldman-Mellor et al, 2020). The relative burden of trauma and mental health concerns among parents involved in child maltreatment cases is not well understood. However, supporting parents by addressing mental health needs within an anti-racist and trauma-informed framework is being increasingly seen as a form of primary prevention against child maltreatment and infant mortality.

In order to elucidate the major drivers connecting transgenerational associations among maternal-infant mental health, trauma, and maternal and infant mortality, my research builds on existing literature by using ecosocial theory to conceptualize ways in which both biological (e.g., epigenetic) and environmental mechanisms may contribute to this association.

Experience

My contributions to science thus far have included (1) genetically-informed studies on the developmental trajectory of psychopathology and (2) advancing translational science in perinatal mental health.

Prior to my doctoral program, I worked in collaboration with researchers at Washington University in St. Louis School of Medicine to complete an analysis on the role of genes in the relationship between suicidal ideation and alcohol use disorders. This project culminated in several conference presentations along with a publication in the *Journal of Studies on Alcohol and Drugs*. During my doctoral studies, I gained experience in advanced quantitative analysis. This informed my qualifying exam paper, which was a PRISMA systematic review of genetic and environmental contributions to the trans generational association between maternal childhood trauma and early infant mental health. It resulted in three conference presentations and

is in the final stages of preparation for submission to *Child Abuse & Neglect* following a successful pre submission inquiry.

Concurrently, I have been an active participant in interdisciplinary groups aiming to speed the translational impact of innovations in perinatal mental health. Prior to my doctoral program, I developed two successful grant applications that allowed for an extension of maternal psychiatric support to high risk and diabetic obstetric clinics. During the doctoral program at UW, I recapitulated these efforts by securing grant funding for a novel integrated behavioral health program for parents and caregivers at the Seattle Children's NICU. The results of this work were accepted at the annual meeting of the International Marce Society for Perinatal Mental Health.

Future Directions

My dissertation will inform a series of next steps which I hope to embark upon in my post-doctoral years. First, I plan to continue my relationship with Washington University's Center for Innovation in Child Maltreatment Policy, Research, and Training (CICM) in order to work with experts in the field of child maltreatment to devise trauma-informed systems of care to better support the mental health of parents involved in the child welfare system. Second, I will use my clinical expertise in treating both trauma and pervasive emotion dysregulation to adapt and refine clinical interventions, in partnership with community members and other stakeholders, that could be piloted to address the mental health needs of families with lived experiences of chronic trauma. Finally, I will continue to advocate for a more thorough integration of biology and the social sciences through (a) increasing social work's presence on interdisciplinary genomic consortiums, such as the heritable human genome editing (HHGE) commission, and (b) continuing research on the joint effects of biological and environmental factors on trans-generational cycles of trauma.