

Table of Contents

Seigny-Resetco, Deborah - #5755 - Childhood Trauma and Pregnancy: Analyzing Their Joint Influence on Executive Function	1
Abstract submission for Institutional Repository	1



Research Week 2023

Childhood Trauma and Pregnancy: Analyzing Their Joint Influence on Executive Function

Deborah Sevigny-Resetco^{1,2,3} and Kristen Mackiewicz-Seghete²

¹ Oregon Health & Science University School of Medicine, Portland, OR

² Department of Psychiatry, Oregon Health & Science University, Portland, OR

³ Department of Behavioral Neuroscience, Oregon Health & Science University, Portland, OR

Keywords

Pregnancy, Executive Function, Childhood Trauma, Substance Use, Inhibition

Abstract

Childhood trauma is widely recognized for its long-term impact on executive function (EF), including its negative effects on behavioral inhibition and decision-making. During pregnancy, a period marked by substantial physiological and neurobiological change, the influence of trauma on EF becomes particularly significant as any pre-existing vulnerabilities may increase the risk of adverse mental health outcomes, affecting not only expectant mothers but also their infants after birth. This analysis examined the impact of childhood trauma on multiple domains of EF in a sample of 108 pregnant, biologically female participants. Notably, a subset of these participants had diagnoses for substance use disorders (18.4%), providing additional insights into the possible compounded effects of trauma and substance use on EF during this period. Using linear regression modeling, we examined the relationship between five distinct types of childhood trauma (emotional, physical, and sexual abuse, as well as emotional and physical neglect) and EF capabilities during the third trimester of pregnancy. Models also included the age of the mother ($M = 31.7$ years, $SD = 4.9$), gestational age ($M = 35.0$ weeks, $SD = 2.2$), and substance use disorder status. Initial analyses revealed that both severity of emotional abuse and the presence of an active substance use disorder were the primary predictors of generalized executive function outcomes ($R^2 = 0.10$). Alternatively, when examining a specific behavioral regulation subscale, severity of emotional abuse and sexual abuse were identified as the significant predictors ($R^2 = 0.18$), suggesting that childhood exposure to specific types of trauma may result in distinct effects on EF during pregnancy. This analysis underscores the critical need for ongoing research to improve our understanding of these dynamics, thereby offering insights to guide the development of more refined support strategies that are sensitive to the diverse effects of traumatic experiences and the unique needs of pregnant individuals.