



Development and disparities in neighborhood context

Daniel A. Hackman, Ph.D.

NASEM Workshop Series: Addressing Health Disparities in Central Nervous System Disorders

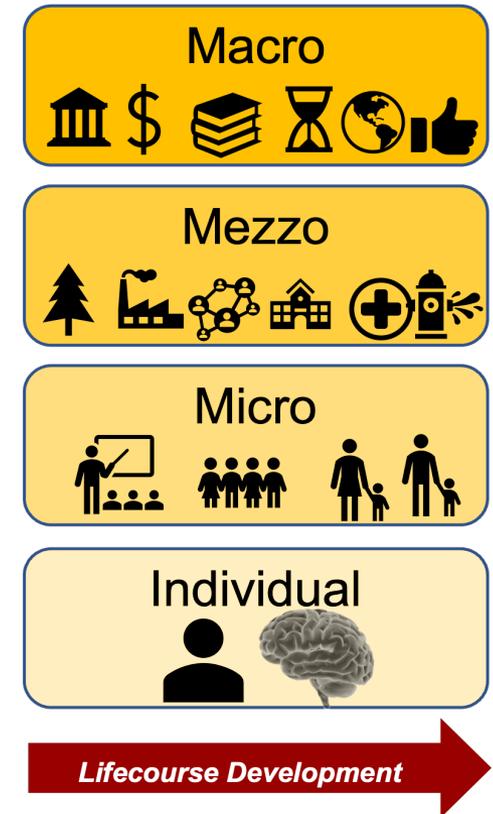
Virtual Workshop #1 – Structural and Social Determinants of Risk

April 13, 2023

No Conflicts of Interest to Disclose

Neighborhood Context and Development

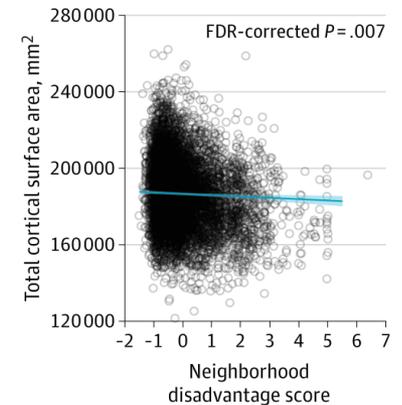
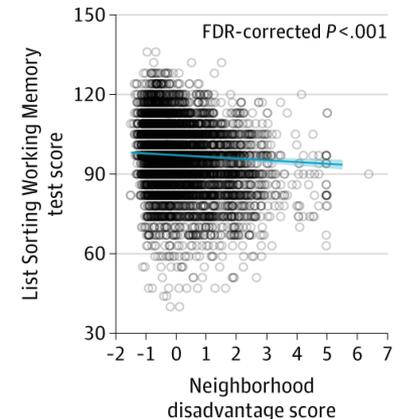
- Lifecourse: Developmental Origins
 - Disparities within childhood and adolescence
 - Precursors and pathways to later disparities
- Multiple Levels of Influence
 - Neighborhoods: Important context
- Neighborhood Disparities in Youth:
 - Mental health
 - Allostatic load, indices of stress, etc
 - Emerging research on brain development
 - Function and structure



(e.g. Aneshensel & Sucoff, 1996; Bronfenbrenner, 1977; Brody et al, 2012; Chetty et al, 2016; Diez-Roux & Mair, 2010; Diez-Roux et al, 2001; Hyde et al 2020; Hyde et al 2021, 2022; Kawachi & Berkman, 2003; Kuh et al, 2003; Leventhal & Brooks-Gunn, 2000; Leventhal, 2018; Leventhal & Dupere, 2019; Ludwig et al, 2013; Mair, et al, 2008; Miller et al, 2011; Rakesh et al, 2021; Rakesh et al, 2022; Reuben et al, 2020; Robert, 1999; Robert et al, 2010; Sharkey & Faber, 2014; Shonkoff et al, 2009; Taylor et al, 2020; Theall et al, 2012; Tooley et al, 2020)

Neighborhood and Brain Development: Early Literature and Implications

- Example: Neighborhood, brain structure and neurocognition in 9-11 year-olds
 - Largely global / pervasive associations
 - Independent of family SES
 - Largely similar across the US - local variation within regions is most important
- Evidence of variability, suggesting resilience
- Neighborhoods appear to “matter”
 - Though there is much to learn!
 - Role in CNS disparities
- Intervention implications for research
 - Modifiable protective factors
 - Structural change, investment in communities



Hackman DA, Cserbik D, Chen JC, et al. *JAMA Pediatrics*. 2021, 175(8),e210426–e210426