Neighborhood disadvantage

Neighborhood disadvantage refers to the unfavorable socioeconomic, environmental, and structural conditions that exist within a specific geographic area or neighborhood. These disadvantages can encompass a wide range of factors that negatively impact the quality of life and opportunities available to residents. Here are some key aspects of neighborhood disadvantage:

Economic Factors: Economic disadvantage in a neighborhood often involves high levels of poverty and unemployment. Residents may have limited access to well-paying jobs and economic opportunities, leading to financial instability.

Educational Disparities: Neighborhoods with disadvantages may have poorly funded or underperforming schools, which can limit educational opportunities for children and adolescents. This can perpetuate cycles of poverty and low educational attainment.

Limited Access to Healthcare: Healthcare disparities can be prevalent in disadvantaged neighborhoods, with limited access to quality medical facilities, healthcare providers, and health insurance. This can result in higher rates of untreated illnesses and chronic health conditions.

High Crime Rates: Disadvantaged neighborhoods are often associated with higher crime rates, including violent crimes and property crimes. This can contribute to feelings of insecurity and stress among residents.

Housing Issues: Housing in disadvantaged neighborhoods may be characterized by substandard living conditions, lack of affordable housing options, and overcrowding. These conditions can negatively affect residents' physical and mental health.

Environmental Hazards: Some disadvantaged neighborhoods may be located near environmental hazards, such as polluted air or water sources, which can have adverse health effects on residents.

Limited Access to Nutritious Food: Food deserts, where residents have limited access to fresh and nutritious food, can be prevalent in disadvantaged areas. This can contribute to poor dietary habits and health outcomes.

Transportation Challenges: Limited access to reliable transportation options can make it difficult for residents to access jobs, healthcare, and essential services.

Social Isolation: Disadvantaged neighborhoods may suffer from social isolation and reduced social capital, leading to decreased social support networks.

Inequities in Opportunities: Individuals living in disadvantaged neighborhoods often face systemic barriers that limit their access to educational, employment, and economic opportunities. This can perpetuate cycles of poverty and inequality.

Neighborhood disadvantage can have a significant impact on the well-being and life outcomes of its residents. Research has shown that living in a disadvantaged neighborhood is associated with increased stress, health disparities, reduced educational attainment, and limited economic mobility. Policymakers and community organizations often focus on addressing neighborhood disadvantage through initiatives aimed at improving education, healthcare access, economic opportunities, and the overall living conditions in these areas. By addressing these systemic issues, it is possible to mitigate the negative effects of neighborhood disadvantage and promote greater equity and well-being for all

1/3

residents.

Neurosurgery

- Neighborhood socioeconomic disadvantage is not associated with adverse outcomes following elective spine surgery in older Veterans
- Association of Socioeconomic Disadvantage With Postoperative Length of Stay
- Pediatric traumatic brain injury: precision risk assessment models and an online calculator for enhanced patient care
- The association of neighborhood-level deprivation with glioblastoma outcomes: a single center cohort study
- Multicenter study of association between socioeconomic status and treatment of ruptured cerebral aneurysms compared to unruptured cerebral aneurysms: insights from 4,517 patients using the area deprivation index
- COVID-19's causal impact on child abuse and socioeconomic status: a Bayesian time series study
- The Association of Race, Rurality, and Neighborhood Disadvantage with Disease Severity at Initial Presentation in Cervical Spondylotic Myelopathy: A Cohort Study
- Neighborhood-level measures of socioeconomic status impact healthcare utilization and surgical outcomes in cervical spondylotic myelopathy patients in the Deep South

Differences in neighborhood socioeconomic characteristics are important considerations in understanding differences in risk vs resilience in mental health. Neighborhood disadvantage is associated with alterations in the function and structure of threat neurocircuitry.

Objective: To investigate associations of neighborhood disadvantage with white and gray matter and neural reactivity to positive and negative stimuli in the context of trauma exposure.

Design, setting, and participants: In this cross-sectional study, survivors of trauma who completed sociodemographic and posttraumatic symptom assessments and neuroimaging were recruited as part of the Advancing Understanding of Recovery After Trauma (AURORA) study between September 2017 and June 2021. Data analysis was performed from October 25, 2022, to February 15, 2023.

Exposure: Neighborhood disadvantage was measured with the Area Deprivation Index (ADI) for each participant home address.

Main outcomes and measures: Participants completed separate threat and reward tasks during functional magnetic resonance imaging. Diffusion-weighted and high-resolution structural images were also collected. Linear models assessed the association of ADI with reactivity, microstructure, and macrostructure of a priori regions of interest after adjusting for income, lifetime trauma, sex at birth, and age. A moderated mediation model tested whether ADI was associated with neural activity via microstructural changes and if this was modulated by Post-Traumatic Stress Disorder (PTSD) symptoms.

Results: A total of 280 participants (183 females [65.4%]; mean [SD] age, 35.39 [13.29] years) completed the threat task and 244 participants (156 females [63.9%]; mean [SD] age, 35.10 [13.26] years) completed the reward task. Higher ADI (per 1-unit increase) was associated with greater insula (t274 = 3.20; β = 0.20; corrected P = .008) and anterior cingulate cortex (ACC; t274 = 2.56; β = 0.16; corrected P = .04) threat-related activity after considering covariates, but ADI was not associated with reward reactivity. Greater disadvantage was also associated with altered microstructure of the

cingulum bundle (t274 = 3.48; β = 0.21; corrected P = .001) and gray matter morphology of the ACC (cortical thickness: t273 = -2.29; β = -0.13; corrected P = .02; surface area: t273 = 2.53; β = 0.13; corrected P = .02). The moderated-mediation model revealed that ADI was associated with ACC threat reactivity via cingulum microstructural changes (index of moderated mediation = -0.02). However, this mediation was only present in individuals with greater PTSD symptom severity (at the mean: β = -0.17; standard error = 0.06, t= -2.28; P = .007; at 1 SD above the mean: β = -0.28; standard error = 0.08; t = -3.35; P < .001).

Conclusions and relevance: In this study, neighborhood disadvantage was associated with neurobiology that supports threat processing, revealing associations of neighborhood disadvantage with neural susceptibility for PTSD and suggesting how altered structure-function associations may complicate symptoms. Future work should investigate specific components of neighborhood disadvantage that may be associated with these outcomes ¹⁾.

1)

Webb EK, Ely TD, Rowland GE, Lebois LAM, van Rooij SJH, Bruce SE, Jovanovic T, House SL, Beaudoin FL, An X, Neylan TC, Clifford GD, Linnstaedt SD, Germine LT, Bollen KA, Rauch SL, Haran JP, Storrow AB, Lewandowski C, Musey PI Jr, Hendry PL, Sheikh S, Jones CW, Punches BE, Swor RA, Pascual JL, Seamon MJ, Datner EM, Pearson C, Peak DA, Merchant RC, Domeier RM, Rathlev NK, Sergot P, Sanchez LD, Kessler RC, Koenen KC, McLean SA, Stevens JS, Ressler KJ, Harnett NG. Neighborhood Disadvantage and Neural Correlates of Threat and Reward Processing in Survivors of Recent Trauma. JAMA Netw Open. 2023 Sep 5;6(9):e2334483. doi: 10.1001/jamanetworkopen.2023.34483. PMID: 37721751.

From: https://neurosurgerywiki.com/wiki/ - **Neurosurgery Wiki**

Permanent link: https://neurosurgerywiki.com/wiki/doku.php?id=neighborhood_disadvantage



Last update: 2024/06/07 02:52