The Association between Neighborhood Disorder and Hypertension Mediated through Stress Francis Henderson, Carvn Bell, Alexandra Duncan, C. Debra Furr-Holden

This study seeks to understand the relationship between the physical and social neighborhood environment and self-reported hypertension status in order to improve the health of Baltimore City residents. However, the mechanism through which neighborhood disorder is associated with hypertension is unclear. Self-reported hypertension status and demographic information from 711 Baltimore City heads of households from the Windows to Health survey was combined with corresponding neighborhood block order/disorder ratings on the presence of violence, alcohol and other drugs using the Neighborhood Inventory for Environmental Typology (NIfTEy). Regression models were used to test the relationship between (1) neighborhood disorder and hypertension status, (2) neighborhood disorder and stress symptoms (tiredness, headache, and trouble concentrating), and (3) stress symptoms and hypertension status. Results showed a statistically significant association between neighborhood disorder (violence) and stress symptoms (tiredness) after adjusting for age, sex, race, employment status, and highest level of education completed (OR 1.35, CI 1.03-1.77). However, there was no association between neighborhood disorder and hypertension status or stress symptoms and hypertension status. It is possible stress symptoms could be related to other health outcomes. Given the shown relationship between neighborhood disorder and stress symptoms, public health practitioners should design and implement neighborhood level interventions in communities with high levels of disorder in order to improve the health and well-being of residents.