Parental incarceration increases cardiovascular risk in young adults, study suggests

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Cardiovascular disease remains the leading cause of racial disparities in mortality between Black and white people in the United States. New research from the University of Chicago Medicine suggests that parental incarceration may be contributing to these health gaps.
According to the new study, people who experienced a parent or parental figure's incarceration anytime before the age of 18 had higher levels of hypertension and coronary disease biomarkers than people whose parents were not incarcerated. These results indicate that mass incarceration may have transgenerational health consequences.

Adverse childhood experiences (ACEs) are difficult experiences that have been associated with long-term effects on physical and psychological health. The incarceration of a parental figure is an ACE that disproportionally affects marginalized communities, but its physical impacts have been understudied.

"There was very little data on its association with cardiovascular risks," said Elizabeth Tung, MD, Assistant Professor of Medicine at UChicago and the lead author on the study. "We set out to fill that gap in understanding."

The researchers analyzed data from over 9,600 young adults between the ages of 33 and 44 in the National Longitudinal Study of Adolescent to Adult Health (Add Health)—a robust, nationally representative dataset. They found that a staggering 14.1% of all participants and 21.4% of Black participants reported having been exposed to incarceration of a parent or parental figure during childhood.

Tung notes that these figures reflect mass incarceration rates in the 1980s and 1990s, when study participants were less than 18 years old. These people were more likely than their peers to develop hypertension in adulthood, and they had higher levels of high-sensitivity C-reactive protein (hsCRP), a marker of inflammation that health experts use to estimate risk of future coronary events.

The researchers did not find a correlation between parental incarceration and other markers of cardiovascular risk they examined, such as
diabetes, hyperlipidemia and heart disease. However, Tung pointed out that these markers are more likely to emerge in middle age and beyond, whereas hypertension tends to emerge in young adulthood—the age group examined in this study.

"From a societal perspective, it's important to consider our approach to incarceration in the U.S. and how racial disparities in incarceration may be contributing to health disparities," said Tung. She pointed out that there are multiple areas where resources can prove helpful to families affected by incarceration.

Legal aid partners can provide legal support and also connect families to social services and public benefits, which may in turn be able to address some of the economic insecurities that often arise. On the health care side, clinicians can offer family counseling and mental health resources to affected children.

Health care and policy groups alike have shown an increasing interest in social determinants of health: non-medical factors that influence health outcomes. Clinicians who screen for social determinants of health in order to inform patient care tend to ask questions about things like housing and food insecurity.

Tung said her group's findings should encourage health care practitioners to factor in the impact of parental incarceration, which is unfortunately prevalent at similar levels to other social determinants of health. However, she acknowledged that this line of inquiry may be less accepted due to the stigma currently associated with incarceration.

"As a society, we have a responsibility to destigmatize parental incarceration to remove shame-based pressures and instead address these issues with a focus on public health rather than criminality," said Tung.
Further research from this group will seek to explore connections between parental incarceration and other critical dimensions of public health, including social isolation and mental health outcomes such as suicidality.

The study, "Childhood Parental Incarceration and Adult-Onset Hypertension and Cardiovascular Risk" was published in JAMA Cardiology.


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