

## HOW RACISM HURTS -- LITERALLY

By Madeline Drexler | July 15, 2007 -- The Boston Globe

FOUR YEARS AGO, researchers identified a surprising price for being a black woman in America. The study of 334 midlife women, published in the journal *Health Psychology*, examined links between different kinds of stress and risk factors for heart disease and stroke. Black women who pointed to racism as a source of stress in their lives, the researchers found, developed more plaque in their carotid arteries -- an early sign of heart disease -- than black women who didn't. The difference was small but important -- making the report the first to link hardening of the arteries to racial discrimination.

The study was just one in a fast-growing field of research documenting how racism literally hurts the body. More than 100 studies -- most published since 2000 -- now document the effects of racial discrimination on physical health. Some link blood pressure to recollected encounters with bigotry. Others record the cardiovascular reactions of volunteers subjected to racist imagery in a lab. Forthcoming research will even peek into the workings of the brain during exposure to racist provocations.

Scientists caution that the research is preliminary, and some of it is quite controversial, but they say the findings could profoundly change the way we look at both racism and health. It could unmask racism as a bona fide public health problem -- just as reframing child abuse and marital violence as public health concerns transformed the way we thought about these ubiquitous but often secret sources of suffering. Viewing racial discrimination as a health risk could open the door to understanding how other climates of chronic mistreatment or fear seep into the body -- why, for instance, pregnant women in California with Arabic names were suddenly more likely than any other group to deliver low birth-weight babies in the six months after 9/11.

Most striking, researchers note, is how consistent the findings have been across a wide range of studies. The task now, they say, is to discover why.

"We don't know all the internal processes," said James Jackson, director of the Institute for Social Research at the University of Michigan. "But we can observe an effect, and we need to find out what's going on."

The burgeoning research comes at a time when lawmakers and government officials are increasingly focused on the problem of racial disparities in health. African-Americans today, despite a half century of economic and social progress since the civil rights movement, face a higher risk than any other racial group of dying from heart disease, diabetes, stroke, and hypertension. In the United States, affluent blacks suffer, on average, more health problems than the poorest whites. Spurred by statistics like these, dozens of states and cities have been passing legislation intended to eliminate racial and ethnic disparities in health.

Boston's Disparities Project, launched in 2005 by Mayor Menino's office and the Boston Public Health Commission, is one of the most progressive blueprints for change. It includes partnerships with medical institutions, detailed public reports tracking progress, and community grants to tackle such entrenched problems as street violence and lack of access to fresh produce. In May, lawmakers on Beacon Hill held a hearing on proposed

legislation that would reverse the root causes of health inequities. The bill would establish a state office of health equity, among other measures.

Critics of the new research tying racism directly to disease have charged that it is flawed because one cannot objectively measure "racial discrimination." But the science has grown more sophisticated, allowing investigators to measure people's experiences with prejudice more precisely. And its proponents argue that the sheer breadth of the work suggests the conclusions are important. Most of the investigations have been done in the United States, but a growing body of literature originates elsewhere -- from Finland and Ireland to South Africa and New Zealand. These studies have found connections between racism and physical health in populations ranging from Brazil's African-descended citizens to black women in the Netherlands who had immigrated from the former Dutch colony of Suriname.

"Across multiple societies, you're finding similar kinds of relationships," said David Williams, a sociologist at the Harvard School of Public Health. "There is a phenomenon here that is quite robust."

For decades, experts have agreed that racial disparities in health spring from pervasive social and institutional forces. The scientific literature has linked higher rates of death and disease in American blacks to such "social determinants" as residential segregation, environmental waste, joblessness, unsafe housing, targeted marketing of alcohol and cigarettes, and other inequities.

But the new work draws on a different vein of research. In the early 1980s, Duke University social psychologist Sherman James, introduced his now-classic "John Henryism" hypothesis. The name comes from the legendary 19th-century "steel-driving" railroad worker who competed against a mechanical steam drill and won -- only to drop dead from what today would probably be diagnosed as a massive stroke or heart attack. In James's work, people who churn out prodigious physical and mental effort to cope with chronic life stresses are said to score high on John Henryism. James showed that blacks with high John Henryism but low socioeconomic position pay a physical price, with higher rates of blood pressure and hypertension.

Racism, other research suggests, acts as a classic chronic stressor, setting off the same physiological train wreck as job strain or marital conflict: higher blood pressure, elevated heart rate, increases in the stress hormone cortisol, suppressed immunity. Chronic stress is also known to encourage unhealthy behaviors, such as smoking and eating too much, that themselves raise the risk of disease.

In the 1990s, Harvard School of Public Health social epidemiologist Nancy Krieger pushed the hypothesis further. She confirmed that experiences of race-based discrimination were associated with higher blood pressure, and that an internalized response -- not talking to others about the experience or not taking action against the inequity -- raised blood pressure even more. A controversial finding at the time, it has since been replicated by other investigators: The suppressed inner turmoil after a racist encounter can set off a cascade of ill effects.

Jules Harrell, a Howard University professor of psychology, said he was moved this spring by a photo of the Rutgers University women's college basketball team, sitting together with dignified expressions, after radio talk show host Don Imus had labeled

them with a racist epithet.

"The expressions on their faces," said Harrell. "All I could think was, 'Good God, I'd hate to see their cortisol levels.' "

Collectively, these studies of the racism-health link have tied experiences of discrimination to poorer self-reported health, smoking, low-birth-weight deliveries, depressive symptoms, and especially to cardiovascular effects. In the mid-1980s scientists began to take advantage of the controlled conditions of the laboratory. When African-American volunteers are hooked up to blood-pressure monitors, for example, and then exposed to a racially provocative vignette on tape or TV -- such as a white store clerk calling a black customer a racist epithet -- the volunteers' blood pressures rise, their heart rates jump, and they take longer than normal to recover from both reactions. Perhaps, scientists reasoned, the effort of a lifetime of bracing for such threats prolongs the effect.

More recently, the lab has moved out into the real world. Several investigations have linked blood pressure to real-time experiences of stress and discrimination as recorded in electronic diaries. In one yet-to-be-published study, Elizabeth Brondolo, a psychologist at St. John's University, found that daytime experiences of racism led to elevated nighttime blood pressure, suggesting that the body couldn't turn off its stress response.

Despite these suggestive findings, the field remains beset by unknowns. One of the biggest problems is that researchers don't share a concrete, agreed-upon definition of racial discrimination -- partly because such prejudice takes myriad forms. They also don't know if more exposure to racism produces more disease or if, instead, disease sets in only after a threshold has been passed. They don't know if exposures during certain periods of life are more risky than others. And they don't know why some victims cope better than others.

Skeptics distrust people's own accounts of racial discrimination, because the experiences can't be objectively documented and because the victim can't always know the motives of the perpetrator.

"You have to read these studies very carefully and see how they define 'discrimination.' What exactly are they measuring?" said Dr. Sally Satel, a resident scholar at the American Enterprise Institute, a conservative think-tank. "Typically, it comes down to an individual's perception of how he was regarded by another person or by a system -- which is not the same thing as being unfavorably dealt with on the basis of race."

The field's proponents counter that perception is precisely the issue. Studies of depression, anger, and post-traumatic stress disorder also rely on the patient's perceptions of events in their lives, they say -- not on objectively verified facts. Why should research on discrimination be held to a different standard?

Researchers have also refined the questionnaires and interview methods they use, allowing them to tease out the effects of depression or hostility -- mood states that can encourage a person to see discrimination where it's not. The questions posed have also grown more subtle and indirect, enabling study participants to talk openly about experiences they might otherwise deny or minimize.

Methods gauging changes in the body have likewise become more accurate. Stress researchers have gone beyond such straightforward approaches as taking blood-pressure readings or asking individuals to rate their own health. Now, with noninvasive diagnostic equipment, they can look directly at coronary blockages, levels of stress hormone, and the functioning of the immune system. These measurements help scientists zero in on the mechanisms by which racial discrimination may ultimately cause damage.

At the University of California, Los Angeles, psychologist Vickie Mays, director of the Center on Minority Health Disparities, is taking a futuristic angle on racism's bodily toll: peering into the brain itself. In a forthcoming study, Mays will record what happens in the brain's circuits and structures during laboratory conditions of discrimination and whether people vary in their brain responses based on their lifelong exposure to racial prejudice.

"We know about [racism's] outcome -- but in many ways we don't know what makes up the experience of racism," she said. "Is it processing in the part of the brain responsible for emotions? Or in the part of the brain responsible for fear?"

Racism remains challenging to explore scientifically, researchers say, partly because it is difficult to get funding and partly because of institutional reluctance to take on a potentially polarizing issue. In 2006, Harvard's David Williams and a colleague submitted a grant proposal to the National Institutes of Health to study whether perceived ethnic discrimination, coupled with inequities in medical care, delayed stroke recovery in Latinos. As one reviewer wrote back, "It is not a good investment of NIH dollars to study racism, because even if we fund something, there is nothing we can do about it."

It's the kind of remark many scientists in the field have heard. These comments are frustrating, they say, because they see the research as a crucial first step toward a more clinical, less charged, discussion of the place of racism in American society.

"The first step is validating that these effects could be real," said Tené Lewis, a health psychologist at the Yale School of Public Health. "Once we have a body of literature, we can say: 'OK, can we please talk about this?' "

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