

Review Article

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Racial discrimination & health: Pathways & evidence

Ameena T. Ahmed, Selina A. Mohammed* & David R. Williams**

*Kaiser Permanente Division of Research, Oakland, CA, *Nursing Program, University of Washington Bothell, Bothell, WA & **School of Public Health, Harvard University, Boston, MA, USA*

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This review provides an overview of the existing empirical research of the multiple ways by which discrimination can affect health. Institutional mechanisms of discrimination such as restricting marginalized groups to live in undesirable residential areas can have deleterious health consequences by limiting socio-economic status (SES) and creating health-damaging conditions in residential environments. Discrimination can also adversely affect health through restricting access to desirable services such as medical care and creating elevated exposure to traditional stressors such as unemployment and financial strain. Central to racism is an ideology of inferiority that can adversely affect non-dominant groups because some members of marginalized populations will accept as true the dominant society's ideology of their group's inferiority. Limited empirical research indicates that internalized racism is inversely related to health. In addition, the existence of these negative stereotypes can lead dominant group members to consciously and unconsciously discriminate against the stigmatized. An overview of the growing body of research examining the ways in which psychosocial stress generated by subjective experiences of discrimination can affect health is also provided. We review the evidence from the United States and other societies that suggest that the subjective experience of discrimination can adversely affect health and health enhancing behaviours. Advancing our understanding of the relationship between discrimination and health requires improved assessment of the phenomenon of discrimination and increased attention to identifying the psychosocial and biological pathways that may link exposure to discrimination to health status.

Key words Discrimination - psychosocial stress - racism - residential segregation - socio-economic status

Racism and discrimination have adverse consequences to health. Racism is an organized system undergirded by an ideology of inferiority that categorizes population groups into 'races', assigns hierarchical status to these 'racial' groups, and uses this ranking to preferentially allocate societal goods and resources to those that are regarded as inherently superior¹. This often leads to the development of negative attitudes and beliefs toward racial outgroups

(prejudice), and differential treatment of members of these groups by both individuals and social institutions (discrimination). Individuals' racial prejudice and discrimination are often used as indicators of racism in a society. However, racism often persists in institutional structures and policies even when there have been marked declines in racial prejudice at the level of individuals. Moreover, negative racial stereotypes are an additional source of discriminatory behaviour even

among persons who are not prejudiced. Stereotypes are categorical beliefs about social groups that lead individuals to see members of a group as very similar to each other and as possessing common characteristics. This review will focus on evidence that racism and discrimination harm health among minorities in the United States (U.S.). Similar findings have been reported from studies conducted in other parts of the world.

Discrimination is still commonplace in many parts of the world. For example, although discrimination in housing in the U.S. was ruled unconstitutional by the Civil Rights Act of 1968, blacks in search of housing are still systematically steered toward neighbourhoods having a greater number of minorities, lower home values, and lower median income². Research also documents the persistence of discrimination in employment. Audit studies in which black and white job applicants with identical qualifications apply for employment have found racial differences in being allowed to submit an application, in obtaining interviews, and in being offered a job². These studies have found that discrimination that favours white over black applicants occurs in one in every five audits.

A growing research literature suggests that there are multiple ways in which racism in a society can adversely affect health. First, and most importantly, institutional discrimination can affect health by creating racial/ethnic differences in residential environments, socio-economic status (SES) and access to goods and services. Discrimination can also affect health by determining access to medical care. Third, non-dominant group members' internalization of society's racist ideologies and negative characterization of their group may also have health consequences. Finally, experiences of discrimination may be a neglected psychosocial stressor that adversely affects health.

Residential segregation: Institutional discrimination in action

In many countries, institutional discrimination as embodied in laws and statutes has affected the health of marginalized populations by restricting their access to socio-economic opportunities and resources. Residential segregation has been a prime example of an institutional mechanism of racism that can have marked health consequences. Segregation refers to the separation of groups by enforced residence in different areas. For example, in South Africa, there were forced removal and relocation of marginalized population

groups as the policy of apartheid was implemented during the 20th century to ensure that blacks lived in separate areas from whites. More than 100 laws were enacted to separate people along racial lines³. For example, the Group Areas Act of 1953 established separate living areas for all racial groups, the Prohibition of Mixed Marriages Act of 1949 prohibited interracial marriages and a year later the Immorality Act banned sexual relations between 'Whites' and 'non-Whites'.

In the United States, the isolation of American Indians on reservations and the segregation of African Americans have had pervasive negative consequences for social mobility and quality of life, in turn affecting the health of these groups. The history of American Indians is marked by numerous acts by the U.S. government in attempt to either eliminate or assimilate American Indians. Under the ideology of "Manifest Destiny," the federal government enacted genocidal policies to eradicate the American Indian population and passed laws such as the Indian Removal Act of 1830, which forced many indigenous tribes off of their lands and into established reservation containment areas that were assumed to lack natural resources and agricultural value⁴. One devastating example of the Indian Removal Act is the Trail of Tears of 1838, in which the Cherokees were held captive in camps infested with smallpox (for which they had no immunity), and subsequently marched westward to new reservation territories. By the end of this relocation, approximately one-fourth of the Cherokee population had died⁵. The complete disruption in way of life for American Indians and their segregation to foreign lands inevitably created dependence on governmental land, housing, food, and subsistence allotments for survival⁴.

In addition to forced migration and new environments, American Indians had to endure other systematic efforts to destroy their cultures and societies, such as religious persecution, boarding schools that sought to eradicate Native languages and customs, and the mass displacement of thousands of American Indian children into non-Native families through adoption. Later, relocation policies sought to end governmental responsibility for American Indians by moving them into cities. The ramifications of these governmental efforts continue to negatively affect the health of contemporary American Indian populations in both direct and indirect ways. The loss of land, language, and resources, combined with alienation from families, the breakdown of tribal communities, and a dependent relationship with the federal government have had

deleterious consequences for the economic and political survival, cultural traditions, and social cohesion among American Indians. Many reservations today have high unemployment rates and limited educational systems, forcing a large number of American Indians to live in poverty⁶. Generations of American Indians have struggled with issues of identity, self-esteem, and feelings of despair that have resulted in loss of spirituality and created barriers to good health by exacerbating high rates of unemployment, low socio-economic status, and limited educational attainment⁷. The aftermath of years of physical and psychological destruction are manifested today through high rates of violence, mental illness, alcoholism, and chronic diseases such as diabetes⁸.

Research on African Americans has clearly traced the linkages between segregation and health. We review this evidence in some detail. Through the first half of the twentieth century, U.S. racial segregation was enforced both through law and regulation, as well as through extralegal force. Restrictive covenants barred non-whites from ownership or residence in many neighbourhoods. Even when no restrictive covenants or laws prohibited blacks and other minorities from living in predominantly white neighbourhoods, those who attempted to live there faced intimidation and violence from groups such as the Klu Klux Klan. Although racially-based restrictive covenants were declared unenforceable by the U.S. Supreme Court in 1948, and overt intimidation and violence have been rare for the past several decades, data from the 2000 Census document the persistence of extremely high levels of segregation in the United States⁹. Nationally, the index of dissimilarity for the United States declined from 0.70 in 1990 to 0.66 in 2000. A score of 0.66 means that 66 per cent of black U.S. residents would have to move to achieve a perfect representation of their group. Generally, a dissimilarity index value above 0.60 reflects extremely high segregation¹⁰. The small decline in segregation from 1990 to 2000 was largely due to the movement of blacks into formerly all-white census tracts rather than the integration of overwhelmingly black (over 80% or more) census tracts. Other research indicates that U.S. whites prefer neighbourhoods with few or no blacks and move out of communities when the black population increases, so that although African Americans express higher support than other racial/ethnic groups for residence in integrated neighbourhoods, their residential exclusion remains high and distinctive¹¹. Accordingly, the decline in

segregation has not reduced the very high percentage African American census tracts, the residential isolation of most African Americans or the concentration of urban poverty⁹.

Mechanisms of action: Residential segregation & health

Residential segregation can affect health in multiple ways. Residential segregation shapes socio-economic status (SES) and thus health by restricting access to educational and employment opportunities; discounts the economic value of a given level of SES; and concentrates health-damaging conditions in residential environments.

Segregation and socio-economic status: Segregation restricts socio-economic attainment for African Americans by limiting access to education and employment opportunities. It is the concentration of poverty rather than racial composition that lies at the heart of the problems created by segregation. Compared to richer areas, poorer neighbourhoods have lower quality schools, fewer public parks and other recreation facilities, higher levels of environmental hazards, and fewer jobs. In many large metropolitan areas, residential segregation and the concentration of poverty overlap considerably. Although two out of three poor persons in the U.S. are white, poor white families tend to be dispersed throughout the community with many residing in desirable residential areas, while poor black families are much more likely to be concentrated in poor neighbourhoods¹².

Residential segregation leads to differential educational opportunities by race. In 1954, the U.S. Supreme Court unanimously ruled in *Brown v. Board of Education* that segregated schools were inherently unequal and unconstitutional. However, because of the persistence of residential segregation, and because assignment to public schools is generally determined by residence, elementary and high school education in the U.S. remains highly segregated and markedly unequal. Moreover, levels of segregation for black and Latino students are on the increase¹³.

Segregation also restricts employment opportunities and thus income levels for African Americans. First, residential segregation isolates blacks in segregated communities from both role models of stable employment and social networks that could provide leads about potential jobs¹². Second, in recent decades, low skilled, high pay jobs have moved

from the urban areas where blacks reside to the suburbs¹². Some corporations explicitly use the racial composition of areas in determining the sites of new plants and the relocation of existing ones¹⁴. Negative racial stereotypes of African Americans and the areas where they are concentrated play an important role in these decisions¹⁵. A *Wall Street Journal* analysis of over 35,000 U.S. companies found that blacks were the only racial group that experienced a net job loss during the economic downturn of 1990-1991¹⁶. African Americans had a net job loss of 59,000 jobs, while there was a net gain of 71,100 for whites, 55,100 for Asians, and 60,000 for Latinos. Thus, during routine “non-racial” restructuring, relocation, and downsizing, employment facilities are systematically moved to suburban and rural areas where the proportion of blacks in the labour force is low.

Therefore, residential segregation by race is a key determinant of socio-economic conditions at the level of the individual, household, and community^{10,17}. One U.S. study found that the elimination of residential segregation would completely erase black-white differences in earnings, high school graduation rates, and unemployment and would reduce racial differences in single motherhood by two-thirds¹⁸. Research has identified socio-economic status as one of the strongest determinants of variations in health, in general and the major contributor to racial differences in health, in particular¹⁹. SES accounts for much of the racial differences in health and it is frequently found that SES differences, within each racial group, are substantially larger than overall racial ones²⁰.

Discounting of SES: Racial differences in income, education, and occupation do not tell the full story of racial differences in economic circumstances. The value of these standard socio-economic indicators is not equivalent across race¹⁹. Middle class blacks are more likely than their white peers to be recent and tenuous in that status. College-educated blacks, for example, are more likely than their white peers to experience unemployment²¹. Moreover, employed blacks are more likely than their white peers to be exposed to occupational hazards and carcinogens, even after adjusting for job experience and education. The racial differences in wealth are much larger than those for income and there are racial differences in the inheritance of wealth and intergenerational transfers of wealth. Racial differences in wealth also link the current situation of blacks to historic discrimination. For most American families, housing equity is a major source of

wealth. Thus, today’s black-white differences in wealth are, at least partly, a consequence of the institutional discrimination in housing practiced in the past. In addition, residential segregation leads to smaller returns on the investment in real estate for African Americans compared to whites. That is, the growth in housing equity over time, a major source of wealth for most American families, is smaller for blacks in highly segregated areas than for comparable homes in other areas. Segregation also leads to racial differences in the purchasing power of income. Many commercial enterprises withdraw from segregated urban areas. There are often fewer services in highly segregated black areas and the available ones tend to be poorer in quality but higher in price. On average, blacks pay higher prices than whites for a broad range of goods and services in society including food and housing¹⁹.

Segregation and neighbourhood conditions: Residential segregation by race is also a key determinant of socio-economic conditions at the level of the community. High levels of segregation create distinctive residential environments for African Americans. Sampson and Wilson (1995)²² reported that in the 171 largest cities in the U.S., there was not even one where whites lived in comparable conditions to blacks in terms of poverty rates or rates of single parent households. These researchers came to the striking conclusion that “the worst urban context in which whites reside is considerably better than the average context of black communities²²”.

Racial residential segregation has led to unequal access for most blacks to a broad range of services provided by municipal authorities. Compared to more affluent areas, political leaders have been more likely to cut spending and services in poor neighbourhoods, in general, and African American neighbourhoods, in particular²³. Because poor and minority persons are less active politically, elected officials are less likely to encounter vigorous opposition when services are reduced in these areas. This dis-investment of economic resources in these neighbourhoods has led to a decline in the quality of life in those communities. The selective out-migration of many whites and some middle class blacks from cities to the suburbs has also reduced the urban tax base and the ability of some cities to provide a broad range of supportive social services to economically deprived residential areas.

Segregation and health: Evidence

Research reveals that residential segregation is related to health outcomes, such as elevated risk of adult

and infant mortality and tuberculosis¹⁷. There are multiple mechanisms by which the concentrated poverty created by segregation could adversely affect health¹⁷. First, the conditions created by poverty and segregation make it more difficult for residents of those areas to practice desirable health behaviours. The higher cost and poorer quality of grocery items in economically disadvantaged neighbourhoods can lead to poorer nutrition. Both the tobacco and alcohol industry heavily bombard poor minority communities with advertising for their products. The lack of recreation facilities and concerns about personal safety can also discourage leisure time physical activity.

In addition, the concentration of poverty leads to higher levels of stress, due to exposure to elevated levels of economic hardship, as well as other types of chronic and acute stress at the individual, household and neighbourhood level. For example, African Americans are much more likely than whites to be victims of all types of crime. The weakened community and neighbourhood infrastructure in segregated areas can also adversely affect interpersonal relationships and trust among neighbours. These resources can potentially reduce at least some of the negative effects of stress on health. Fourth, poor, segregated communities are often victims of institutional neglect and disinvestment. The resulting decline in the urban infrastructure and physical environment results in disproportionate exposure to environmental toxins and poor quality housing.

Discrimination and medical care

Institutional and individual discrimination can also reduce non-dominant groups' access to a broad range of desirable goods and services. Medical care is one example. Discrimination can affect both access to care, as well as the quality and intensity of medical treatment. U.S. research reveals that residential segregation can affect access to medical care by determining both the particular institutions where minorities access care and the type and quality of their health care providers. Obtaining access to high quality medical care is a challenge in many segregated neighbourhoods. Health care facilities are more likely to close in poor and minority communities than in other areas²⁴ and pharmacies in minority neighbourhoods may be less likely to be adequately stocked with medication²⁵. Moreover, blacks and Latinos are more likely than whites to be treated at large inner-city urban hospitals that are often the place of final resort for the poor²⁶. Some evidence also suggests that non-white patients

are more likely than their white counterparts to be treated by lower quality physician.

Research also reveals that there are systematic racial differences in the quality of medical care. A recent Institute of Medicine (IOM) report entitled *Unequal Treatment* documents large racial/ethnic differences in the quality and intensity of medical care in the United States²⁶. For a diverse range of therapeutic procedures, ranging from high technology interventions to basic diagnostic and treatment procedures, blacks and other minorities are less likely to receive medical procedures and more likely to experience poorer quality medical care than whites. This pattern of differences is robust even in studies that adjust for differences in health insurance, SES, stage and severity of disease, comorbidity, and the type of medical facility.

One uncomfortable but scientifically credible explanation for this striking pattern of findings is that discrimination based on negative stereotypes of minorities is likely to play a role in encounters between patients and providers in the U.S.²⁷. In the U.S., national data reveal that whites continue to hold negative stereotypes of blacks and other minorities. For example, 56 per cent of whites believe that blacks prefer to live off welfare, 51 per cent believe that blacks are prone to violence, 29 per cent view blacks as unintelligent and 44 per cent see them as lazy²⁸. Comparatively, only 4 per cent of whites believe that whites prefer to live off welfare, 16 per cent consider whites to be prone to violence, 6 per cent view whites as unintelligent and 5 per cent see them as lazy. In this study, whites viewed blacks, Hispanics, and Asians more negatively than themselves, but blacks were viewed more negatively than all other groups, and Hispanics twice as negatively as Asians. These high levels of negative stereotypes are an ominous indicator of societal discrimination. Research indicates that individuals who hold negative stereotypes of a group will discriminate against members of the stigmatized group^{29,30}. Moreover, well-learned stereotypes are resistant to disconfirmation, and their activation is an automatic process with even non-prejudiced individuals spontaneously, and without conscious awareness, discriminating against someone to whom the stereotypes are applicable³⁰.

Several lines of evidence suggest that discrimination based on negative stereotypes of minorities is likely to play a role in encounters between patients and providers in the U.S. First, health care providers have been socialized in the larger society that

views racial/ethnic minorities negatively on multiple social dimensions. Second, research on stereotypes indicates that encounters in the health care setting contain characteristics that increase the likelihood of unconscious stereotyping. Stereotypes are more likely to be activated when there is time pressure, the need to make quick judgments, cognitive overload, task complexity, and when the emotions of anger or anxiety are present²⁷. The typical health care encounter is often characterized by time pressure, brief encounters, and the need to manage complex cognitive tasks. Third, the limited available evidence indicates that physicians perceive black patients more negatively than their white counterparts.

Internalized racism and health

Negative stereotypes and images of non-dominant racial groups are pervasive in a racialized society's culture. Categorical beliefs about the biological and/or cultural inferiority of some racial groups can attack the self-worth of at least some members of stigmatized racial groups and undermine the importance of their very existence. Internalized racism refers to the acceptance, by marginalized racial populations, of the negative societal beliefs and stereotypes about themselves.

One response of populations defined as inferior would be to accept as true the dominant society's ideology of their inferiority. The internalization of negative cultural images by stigmatized groups appears to create expectations, anxieties and reactions that can adversely affect social and psychological functioning. Fischer and colleagues³¹ review of research from several countries indicates that groups that are socially regarded as inferior have poorer academic performance than their more highly regarded peers. Examples include Koreans versus Japanese in Japan, Scots versus English in the United Kingdom, and Eastern European origin versus Western European origin Jews in Israel. Research in the U.S. reveals that when a stigma of inferiority is activated under experimental conditions, performance on an examination is adversely affected³². African Americans who were told in advance that blacks perform more poorly on exams than whites, women who were told that they perform more poorly than men, and white men who were told that they usually do worse than Asians, all had lower scores on an examination than control groups who were not confronted with a stigma of inferiority^{31,32}.

Several studies have empirically examined the association of internalized racism with health. In a study

of 289 African American women, Taylor and Jackson³³ found a positive association between internalized racism and alcohol consumption. Internalized racism was also positively related to psychological distress even after adjustment for stress, social support, religious orientation, SES, marital status, and physical health³⁴. Similarly, among American Indians, internalized racism has been shown to result in psychological problems, such as depression, low self-esteem, feelings of isolation and identity crisis, as well as increased drinking patterns⁷.

Perceived discrimination and health

A growing body of research has examined the ways in which the psychosocial stress associated with subjective experiences of discrimination (hereafter "perceived discrimination") can be deleterious to health. Perceived discrimination is associated with poorer health status across a range of health-related behaviours and physical and mental health outcomes. The perception of discrimination may exert deleterious effects on an individual's health, independent of the material impact of institutional discrimination in causing differential access to goods, services, and environmental exposures.

The perception of discrimination is a salient stressor for many members of non-dominant groups. Lifetime major events of perceived discrimination were reported by 49 per cent of black Americans, compared to 31 per cent of white Americans³⁵. Fifty one per cent of blacks believe that blacks and whites are not treated equally, more than twice the 24 per cent of whites who hold this belief³⁶. Stress associated with perception of discrimination exerts effects on health independent of those due to other stressors³⁷. Despite these findings, much research on discrimination and research on stress fails to consider both concepts³⁸.

The manifestations of perceived discrimination may be considered across several dimensions, including severity. On one end of the spectrum are daily hassles, or slights. On the other extreme are violent manifestations, including lynching of blacks in the U.S., torture of ethnic minorities, and communal violence and riots in India. A consideration of the mechanisms through which perceived discrimination may affect health needs to reflect this continuum. A lynching or death in a communal riot is an instance of premature mortality attributable to discrimination.

Research on the effects of perceived discrimination on health initially focused on African Americans. More

recently, the field has expanded to consider other marginalized minority groups within the United States, as well as to studies conducted in several other nations in Latin America, North America, Europe, Australia, and New Zealand.

Mechanisms of action: Perceived discrimination and health

Perceived discrimination may exert effects on health through the pathways common to many psychosocial stressors' effects on health (Fig.). Chronic psychosocial stress results in changes in neuroendocrine, autonomic, and immune systems³⁹. These changes, in turn, result in changes in physiology and behaviour, which eventually result in changes in health outcomes. The neuroendocrine response to stress includes activation of the sympathetic nervous system and hypothalamic-pituitary-adrenocortical axis, with consequent secretion of catecholamines (epinephrine and norepinephrine) and cortisol, respectively. The immune response to stress includes alterations in lymphocyte subsets, lymphocyte proliferative responses to polyclonal mitogens, and antibody titres to latent viruses⁴⁰. Studies of the neurobiology of stress have demonstrated structural and functional changes in the brains of people with post-traumatic stress disorder⁴¹ and those who experienced repeated stress during childhood⁴².

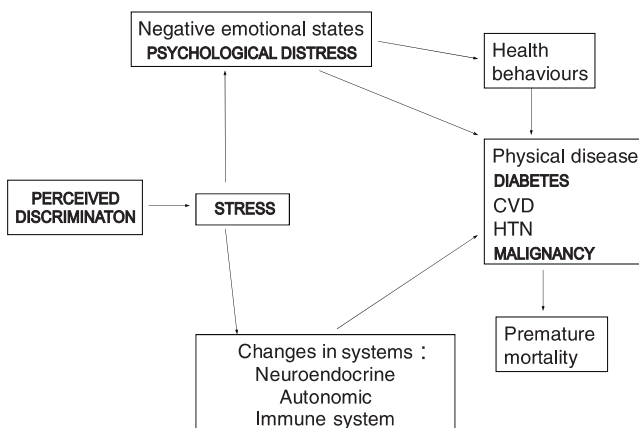
Allostasis is the body's ability to maintain homeostasis and to adapt to stressful events by appropriately activating the neuroendocrine, autonomic, and immune systems, and then to return to the basal state when the stressful event is past. While allostasis is adaptive in the short term, the

cumulative burden of cycles of allostasis in response to repeated or chronic stress can be damaging and lead to multiple disease states. The concept of "allostatic load" refers to the cumulative wear and tear that the body experiences on these multiple regulatory systems as a result of repeated cycles of allostasis as well as the inefficient regulation of these cycles⁴³. Allostatic load is also influenced by genetic factors, behaviours such as substance use and diet, and developmental experiences. High allostatic load is associated with the metabolic syndrome, and predicts mortality, cardiovascular disease incidence, and decline in cognitive and physical function⁴⁴. There are suggestions that psychosocial stress may also play a role in carcinogenesis. Behavioural stress has been shown to cause greater tumour burden and more invasive disease in animal models of cancer⁴⁵. Stress also plays a role in the onset, progression, and severity of chronic pain syndromes⁴⁶.

Empirical data

Psychological symptoms and mental health outcomes have been the most often studied outcomes of perceived discrimination, and have the strongest and most consistent associations. Specific outcomes examined included general level of mental health or psychological distress, depression, anxiety, obsessive-compulsive symptoms, negative affect, psychosis, and satisfaction with or quality of life⁴⁷. The consistency of these findings may reflect the immediate effect of negative life events on mental health, as shown in the Fig. That is, perceptions of discrimination may cause acute (as well as chronic) psychosocial stress, and result directly and immediately in poorer mental health.

Similarly, perceived discrimination is associated with adoption of health-damaging behaviours such as smoking and alcohol use disorders⁴⁷. As with psychological outcomes, the perception of discrimination, acting as a psychosocial stressor, could exert either immediate or chronic effects on adoption of health-damaging behaviours. Further, patients who perceive discrimination by their health care provider may be less willing to access health care services. In one study of Minnesota health care programme enrollees, American Indians were more likely to report racial discrimination as a barrier to care than their white counterparts⁴⁸. Data on perceived discrimination from the 2001 California Health Interview Survey (CHIS) reveal that American Indians were more likely to report discrimination in health care than any other racial group⁴⁹. In a third study examining diabetes among



CVD - cardiovascular disease

HTN - hypertension

Fig. Mechanisms through which perceived discrimination may exert effects on health.

American Indians, participants reported that their perceptions of being discriminated against by their health care provider led to distrust in their provider, diminished their willingness to seek health care services, and contributed to their stress levels regarding disease management⁵⁰.

The most commonly examined physiologic outcome of perceived discrimination is elevated blood pressure, or hypertension⁵¹⁻⁵³. Some laboratory studies have found that perceived discrimination is associated with larger increases in blood pressure and heart rate in response to experimental stressors, while others have found that perceived discrimination is associated with blunted cardiovascular response. Both findings support the hypothesis that chronic perceived discrimination results in increased allostatic load, with dysregulation of normal adrenergic responses to stress. Epidemiologic studies have had similarly mixed findings, with the majority of studies finding that perceived discrimination was associated with higher blood pressure or greater prevalence of hypertension, and a minority finding no association. Further, coping mechanisms that involved internalization in response to unfair treatment are associated with higher blood pressure or higher risk of hypertension. Some of these differences may be explained by considering the mechanisms through which perceived discrimination affects health. The chronic, cumulative effects of perceived discrimination would be expected to exert effects on the development of hypertension over time. Thus, if perceived discrimination is a stressful event, and if it causes an increase in allostatic load, we would expect that chronic perceptions of discrimination, or chronic daily hassles, would result in elevated resting blood pressure after a period of several years. Recent studies have demonstrated that chronic perceived discrimination is associated with coronary artery calcification and coronary events^{54,55}.

Several studies have examined the associations between perceived discrimination and perinatal outcomes. Suggestive associations have been found between perceived discrimination and higher risk of low birth weight and preterm birth⁵⁶. Both ongoing discrimination as well as discrimination that is first perceived during pregnancy may have deleterious effects on birth outcomes.

The relationship between perceived discrimination and several other health outcomes is less well studied. Among these are diabetes, cardiovascular disease other than hypertension, and all-cause mortality⁴⁷.

Types of discrimination

We can look to the stress literature for a framework within which to consider perceived discrimination. Perceived discrimination may include traumatic life events, chronic stressors, and daily hassles. Traumatic life events are acute or chronic stressors that an individual perceives as potentially threatening to life or physical integrity to herself or family members. Traumatic life events may include those specific to an individual, such as experiencing or witnessing rape or assault; collective trauma, such as natural disasters, war and other mass violence⁵⁷, or historical trauma. Chronic stressors may include discriminatory treatment at work or school. Daily hassles are minor irritations.

Future directions for research

Despite rapidly growing interest in the health effects of perceived discrimination, there are several opportunities to advance the field. First, most studies to date have been cross-sectional. Assessment of discrimination over the life course, as well as the predictive value of perceived discrimination in changes in health status, would add to the literature. Further, the health effects of discrimination on children and adolescents is an understudied area.

Second, perceived discrimination needs to be recognized as a salient stressor in the lives of minority populations, and assessment of perceived discrimination needs to be included in measures of stressful events.

Third, elucidation of the mechanisms through which perceived racism affects health will increase understanding of the ways in which discrimination is embodied. The effects of perceived discrimination on health are thought to be mediated by the stress response, but few studies of perceived discrimination have directly examined levels of stress or of the physiologic response to stress.

Fourth, the study of perceived discrimination has focused mainly on U.S. blacks and whites, though studies have been conducted comparing dominant to undervalued groups in other parts of the world. An expansion of this field of research to discrimination among groups in other parts of the world, as well as to discrimination based on other social characteristics, such as gender, sexual orientation, disability, immigration status, education, and so forth, would add greatly to the knowledge of the health effects of perceived discrimination. Further, there needs to be

study into how different types of discrimination interrelate. As individuals carry simultaneous identities (for instance, a person is simultaneously of a particular gender, ethnicity, sexual orientation, dis/ability, educational level, and so forth) and may perceive discrimination because of one or more of these identities, often simultaneously, researchers need to develop tools to better assess the range of characteristics to which discrimination may be attributed.

Fifth, an increased understanding of how multiple types of discrimination, including perceived discrimination, institutionally-mediated discrimination, and internalized images in inferiority interact to affect health would better reflect the lived experience of individuals.

Finally, study of the factors associated with resilience to the deleterious effects of racism on health is a field with many unanswered questions. Some of the factors that have been posited to affect resilience include racial consciousness and identity, social support, coping mechanisms, and personality traits.

Conclusion

Racial discrimination exerts deleterious effects on health through multiple mechanisms. Institutional discrimination causes differential access to goods, services, and benefits in society. One of the most significant mechanisms of institutional discrimination, residential segregation, has resulted in minorities having fewer and lesser quality opportunities for education, employment, recreation, and exposure to health-promoting environments. Discrimination in access to and quality of medical care has resulted in minorities being less likely to receive high quality preventative and curative medical care, leading to poorer disease outcomes. Internalized discrimination, the belief of members of stigmatized groups in their own inferiority, is associated with psychological distress and adoption of health-damaging behaviours. The perception of discrimination, acting independently of the effects of institutional discrimination, is an acute and chronic stressor that leads to psychological distress and higher rates of disease.

Future research in the field of discrimination and health will better elucidate the mechanisms through which discrimination affects health, as well as extend previous work to understudied populations.

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