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Health Consequences of Prejudice and Discrimination

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### Abstract

Discrimination and prejudice have substantial adverse consequences for the health and well being of discrimination targets. Three major mechanisms through which discrimination and prejudice undermine health include (1) the direct effects of unequal resource distribution and healthcare quality, (2) the stress-related physiological consequences of encountering discrimination or prejudice, and (3) the health-undermining behavioral responses to discrimination or prejudice. In this entry, we present theory and evidence elucidating the physical health consequences of discrimination and prejudice with a focus on these three mechanisms. We also point to several moderators that exacerbate or attenuate the negative health consequences of discrimination, and outline areas for future research.

*Keywords:* discrimination; prejudice; health; stigma; intergroup relations; stress; health behaviors; inequality

Prejudice and discrimination feature prominently in psychological research over the past sixty years. Most of this research focused on understanding the *causes* of prejudice and discrimination. It was not until the 1980s that research began in earnest to consider the *consequences* of prejudice and discrimination for those who are their targets. Since then a wealth of research has addressed the mental and physical health effects of perceived prejudice and discrimination (for reviews, see Pascoe & Smart Richman, 2009; Williams & Mohammed, 2009; Lewis, Cogburn, & Williams, 2015). This research has shown that prejudice and discrimination can compromise the physical health of low-status, disadvantaged, and stigmatized groups in multiple ways (Major, Mendes, & Dovidio, 2013; Williams & Mohammed, 2013; Lewis et al., 2015). Below, we describe the different pathways through which prejudice and discrimination can get “under the skin” to undermine physical health. We also highlight critical moderators of how individuals cope with prejudice and discrimination that have implications for health.

### Defining Terms

Discrimination and prejudice are related but distinct constructs, and can take several different forms. *Prejudice* refers to negative attitudes toward a group. Prejudice can be explicit (acknowledged by the prejudiced individual) or implicit (based on underlying associations that may not be known or acknowledged by the prejudiced individual). Prejudice can also be “old-fashioned” (hostile or overt) or more “modern” (subtle or disguised). Prejudice may or may not be accompanied by poor treatment of the target group. *Discrimination*, in contrast, is behavioral. It refers to poor or unequal treatment of individuals based on their group membership. Many consider prejudice to be a pre-cursor to discrimination, though discrimination can occur at both structural and interpersonal levels. For example, a policy may be discriminatory because it favors one group over another, even though the policy cannot have “prejudiced attitudes” about a group.

Discrimination also takes several forms. *Acute discrimination* refers to a specific incidence of discrimination, with discrete start and end points—such as being refused service because of group membership. *Pervasive discrimination* refers to more chronic experiences of group-based mistreatment, or the extent to which discrimination is experienced in day-to-day life. *Experienced* and *anticipated* discrimination can also be differentiated. A large body of work has assessed the health consequences of having experienced discrimination. A smaller but growing body of research also assesses the health consequences of anticipating being the target of prejudice and discrimination. Overall, this work suggests that the health consequences of prejudice and discrimination stem not only from direct experiences of overt maltreatment, but also from the extra cognitive and emotional demands that anticipating prejudice places on targets as they navigate the social world.

A large literature has demonstrated the negative impact of discrimination and prejudice on indices of mental health, including stress, depression, anxiety, negative affect, lower self-esteem, and lower life satisfaction (see Pascoe & Richman, 2009). Mental health is a primary component of overall health and well-being as well as a strong predictor of physical health. Due to space concerns, the current entry focuses primarily on the consequences of discrimination and prejudice for *physical* health. Indices of physical health reviewed here include self-reported

health, mortality, cardiovascular, endocrine, and immunological functioning and reactivity, health behaviors, treatment outcomes, and several other biomarkers.

### **Pathways to Poor Health: Mechanisms of Discrimination and Prejudice Affecting Health**

Although the association between discrimination and poor health is well documented, research understanding the mechanisms underlying this relationship is still in its infancy. Below we differentiate between two types of mechanisms (see Pascoe & Richman, 2009, for a discussion of this framework). *Direct effects* refer to the ways in which systemic inequality and biased treatment erode health without any action or psychological input from the target (e.g., receiving poorer treatment by healthcare providers). *Indirect effects* refer to health-eroding behaviors or psychological states that occur in *response* to perceived or anticipated discrimination (e.g., the physiological stress response that accompanies exposure to discrimination; increased alcohol use in order to cope with perceived prejudice).

### **Direct Effects: Systemic and Interpersonal Mistreatment**

The first pathway through which prejudice and discrimination undermine health is direct. By exposing targets to health-compromising environments and limiting access to resources important to promoting health (e.g., education, low-cost healthy foods), both interpersonal and institutionalized prejudice/discrimination can erode health for targets. Below, we briefly discuss four domains in which discrimination and prejudice directly compromise health: housing, education, employment, and healthcare.

In the housing domain, both institutionalized discrimination (e.g., ‘redlining’ policies or using race/ethnicity as a consideration for mortgage accessibility) and interpersonal discrimination (e.g., landlords idiosyncratically favoring White tenants over tenants of color) have limited and continue to limit access to housing for targeted groups. Such segregation and housing disparities directly affect the health of targets by determining access to good schools, safe environments, healthy food, outdoor spaces, low pollution, police protection, and economic mobility. In fact, Williams & Collins (2001) suggested that segregation and racialized housing policy are primary contributors to Black/White health disparities in the United States.

Well-documented racial and ethnic disparities also exist in access to quality private and public education. Moreover, teachers and administrators unequally allocate disciplinary policies such as expulsions, suspensions, and other punishments that can hinder performance in school to Black and Latino school children. Race-based school “tracking,” in which White students are encouraged to take more advanced classes than their non-White counterparts is also common. These often-subtle disparities can directly affect health outcomes over time as academic success and educational achievement are strongly linked to health outcomes.

As with housing and educational discrimination, employment discrimination has shaped and continues to shape the health of targets. Prejudice on the part of hiring managers related to race, ethnicity, age, race, sexuality, and gender not only affect the ability to acquire the financial resources for a healthy lifestyle, but also erects a substantial barrier to obtaining employer-subsidized health insurance.

The healthcare setting is another domain in which prejudice and discrimination directly undermine health. Several large-scale studies have demonstrated that Black, Latino, and poor individuals have less access to healthcare services than their White, Asian, and rich counterparts (e.g., Smedley, Stith, & Nelson, 2002). Moreover, once targets of discrimination and prejudice do gain access to the healthcare system, the quality of treatment, the nature of patient-provider interactions, and the resulting treatment recommendations they receive are often poorer than those of more advantaged groups. Medical conditions tend to be more accurately diagnosed and aggressively treated among White, young, and male patients compared to equivalent Black, older, and female patients – even with identical symptomology (e.g., Schulman, et al., 1999).

Healthcare providers also evince strong negative implicit attitudes toward racial minority patients, overweight patients, and patients in other targeted groups, which may compromise the care these groups receive. Levels of implicit bias among healthcare providers has been shown to predict (1) their own behavior in clinical interactions (2) treatment recommendations, and (3) their patients' treatment outcomes. As such, health disparities likely result partially from implicit and explicit prejudice among healthcare providers that translates into poorer treatment (for a review, see Dovidio, Penner, Albrecht, Norton, Gaertner, & Shelton, 2008).

#### **Indirect Effects: Stress**

A second pathway by which experiencing or anticipating prejudice and discrimination can undermine health is by heightening the experience of stress, precipitating a cascade of neuroendocrine, immunological, and cardiovascular responses that can undermine health over time (Pascoe & Richman, 2009; Major, Mendes, & Dovidio, 2013).

A large literature has examined the effects of perceived prejudice and discrimination on cardiovascular reactivity. Exposing individuals to discrimination or to potential discrimination against themselves or members of their group in the laboratory has been shown to lead to increased cardiovascular reactivity among racial/ethnic minorities, women, and overweight individuals. Discrimination has also been shown to activate the stress-responsive hypothalamic-pituitary-adrenal (HPA) axis, the primary output of which is cortisol. This relationship is complex, however, because both heightened cortisol reactivity and blunted reactivity have been shown in response to discrimination, and under certain circumstances, both can be maladaptive. Emerging research is also examining other biological systems that may be implicated in the development of physical illnesses in response to discrimination. For example, both weight and race-based discrimination correlate with oxidative stress, a pathogenic process implicated in chronic conditions such as diabetes and hypertension (e.g., Szanton et al., 2012). Limited research also suggests that experiencing prejudice and discrimination is associated with markers of systemic inflammation such as C-reactive protein and interleukin-6 (e.g., Lewis, Aiello, Leurgans, Kelly, & Barnes, 2010). Inflammation can precipitate the development of age-related diseases such as cardiovascular disease and arthritis.

#### **Indirect Effects: Health Behaviors**

Experiencing or anticipating being the target of prejudice and discrimination can also alter health behaviors that are essential to maintaining physical wellbeing. Contending with the

stress of prejudice and discrimination is effortful and can tax cognitive resources necessary for self-regulation. As a result, targets of prejudice and discrimination may experience diminished capacity to engage in some health-promoting behaviors. In addition, people may engage in behaviors that have negative health implications as a way of coping with the stress that accompanies experienced or anticipated discrimination. Below we discuss four types of health-related behavior that have been examined in response to prejudice and discrimination: eating behavior, substance use, exercise/physical activity, and healthcare behavior.

Perceived weight-based, gender-based, and race-based discrimination are associated with emotional eating and a host of disordered eating attitudes and behaviors (e.g., Moradi, Dirks, & Matteson, 2005). Likewise, perceiving race-based discrimination during adolescence is prospectively associated with poorer eating habits (e.g., greater fast food consumption) as an adult. Experiencing or anticipating prejudice and discrimination may contribute to unhealthy eating behaviors by: increasing cortisol production, which can spur a drive for high fat and high sugar foods; by decreasing the ability to engage in self-control; and by leading individuals to consume highly palatable (but unhealthy) foods to cope.

Adults reporting discrimination on the basis of race/ethnicity, gender, weight, and sexual orientation are more likely to meet diagnostic criteria for a substance use disorder such as nicotine, alcohol, or drug dependence. This relationship also emerges among adolescents. For example, in a longitudinal study of African-American youth, greater reports of race-based discrimination at baseline were associated with more alcohol and marijuana use over time (Gibbons et al., 2010). Likewise, lesbian, gay, and bisexual (LGB) youth also report higher levels of substance use than their heterosexual counterparts; the odds of LGB youth engaging in substance use are 190% higher than heterosexual youth, presumably a result of minority stress (Lick, Durso, & Johnson, 2013).

There is also evidence that individuals alter their physical activity in response to perceived prejudice and discrimination, although this may depend on the target group. Research in the weight domain shows that experiencing weight-related criticism among adolescents and weight-based discrimination among adults is related to a greater motivation to avoid exercising in public as well as less physical activity. In the race domain, however, this relationship is more inconsistent. Some researchers found no relationship between perceived discrimination and physical activity; others found a negative relationship; while others still found a *positive* relationship. Whereas racial and ethnic minorities may engage in *increased* physical activity to cope with stress associated with perceived discrimination, overweight individuals likely avoid physical activity in an attempt to limit their exposure to the stigma prevalent in this domain (see Bastos, Celeste, Silva, Priest, & Paradies, 2015; Borrell et al., 2013).

In the healthcare domain, patients from targeted groups often report low levels of trust in their healthcare providers and in the healthcare system in general. This lack of trust, perhaps in response to the health care biases evident among healthcare providers, can in turn impede patient adherence to treatment plans and reduce the likelihood that disadvantaged individuals seek medical care. Targets of discrimination and prejudice perceive greater levels of discrimination in

the healthcare system compared to their non-targeted counterparts, and perceptions of discrimination are associated with greater healthcare avoidance (Burgess et al., 2008).

Beyond any actual bias held by their healthcare provider, members of targeted groups may experience discomfort in intergroup interactions where discrimination or prejudice is deemed possible. As such, targets of prejudice and discrimination may experience stress, discomfort, and cognitive impairment in their clinical settings – all of which may have negative implications for physical health.

### **Moderators of the Effect of Discrimination & Prejudice on Health**

Not all potential targets of discrimination and prejudice experience, anticipate, and perceive the same amount of unfair treatment. Nor do discrimination and prejudice affect all members of disadvantaged groups equally. Several key moderators of the discrimination-health relationship have been identified, many of which exacerbate or ameliorate the health consequences of discrimination and prejudice by affecting an individual's *perceptions of* or ability to *cope with* the stress of discrimination and prejudice. As such, most of the moderators identified by researchers have their effects on the indirect pathways—by moderating how much stress discrimination and prejudice elicit, or by moderating how individuals behaviorally cope with that stress.

As is typical of research on stressors in general, people who have more *social support* (i.e., networks of friends or family that can lend tangible or emotional resources to the target) tend to have more healthful responses to discrimination than those with less social support. This is theorized to occur because those with wider and more helpful social connections have additional coping resources to draw on when experiencing discrimination and prejudice, thus lessening the stress of experiencing discrimination or prejudice.

An individual's *coping style* can also moderate the effect of discrimination and prejudice on health. Those who engage in active, problem-focused coping strategies (i.e., dealing with the stressor “head-on”) may experience fewer negative consequences of discrimination than those who engage in more passive coping strategies (i.e., avoiding or ignoring the stressor). However, some recent work has pointed to the limits of active coping styles as well (see, e.g., Brody, Yu, Chen, Miller, Kogan, & Beach, 2013).

*Group identification* (the extent to which one feels strongly connected to one's group) also influences responses to discrimination and prejudice. Several correlational studies point to group identification as a buffering factor for mental health. This research suggests that feeling connected to one's group makes discrimination less distressing and less likely to lead to depression (e.g., Mossakowski, 2003). However, experimental work suggests that group identification can also exacerbate the extent to which group-based discrimination is stressful. For example, Eliezer and colleagues (2010) found that for women high in gender identification, reading about sexism resulted in a more sustained cardiovascular threat response and anxiety compared to women low in gender identification.

*Beliefs about fairness* also shape how individuals perceive and cope with discrimination and prejudice. Specifically, the negative effects of discrimination on physical health tend to be

more pronounced for Black Americans and women who believe the world was fair compared to those who believed the world was generally unfair. Dover, Major, Kunstman, and Sawyer (2015) found that Latino individuals who were treated unfairly by a White peer exhibited a maladaptive cardiovascular profile only when they generally saw the system as fair (vs. unfair). When Latinos believed the world was unfair, they responded to discrimination with an adaptive cardiovascular response. Research in this area suggests that believing that the social system is unfair can potentially buffer individuals from the stress of acute experiences of discrimination and prejudice.

### **Conclusion**

The health implications of prejudice and discrimination are clear: a large body of work has documented the numerous direct and indirect pathways through which discrimination and prejudice undermine the health of targets. While important strides have been made over the past decade to unpack the mechanisms through which discrimination can lead to poor physical health, added research is clearly warranted. In particular there is a need for theoretically based research that integrates multiple methods (e.g., experimental and intensive longitudinal designs) and additional dimensions of prejudice and discrimination (e.g., discrimination-related vigilance) with indicators of physical health that span levels of analysis (e.g., biological/physiological, behavioral) to more accurately and adequately capture the health effects of prejudice and discrimination. Moreover, additional emphasis should be placed on understanding the individual and system-level variables that moderate how individuals cope with discrimination and prejudice. Ultimately, this will foster a better understanding of these processes and allow researchers, policy makers, and public health practitioners to create theoretically and empirically supported interventions to ameliorate the undue health burden associated with prejudice and discrimination.



### References

- Bastos, J.L., Celeste, R.K., Silva, D.A.S., Priest, N., & Paradies, Y.C. (2015). Assessing mediators between discrimination, health behaviours and physical health outcomes: A representative cross-sectional study. *Social Psychiatry and Psychiatric Epidemiology*, *50*(11), 1731-1742. doi: 10.1007/s00127-015-1108-0
- Borrell, L.N., Kiefe, C.I., Diez-Roux, A.V., Williams, D.R., & Gordon-Larsen, P. (2013). Racial discrimination, racial/ethnic segregation, and health behaviors in the CARDIA study. *Ethnicity & Health*, *18*(3), 227-243. doi: 10.1080/13557858.2012.713092
- Burgess, D.J., Warren, J., Phelan, S., Dovidio, J., & Van Ryn, M. (2010). Stereotype threat and health disparities: What medical educators and future physicians need to know. *Journal of General Internal Medicine*, *25*(2), 169-177. doi: 10.1007/s11606-009-1221-4
- Brody, G.H., Yu, T., Chen, E., Miller, G.E., Kogan, S.M., & Beach, S.R. (2013). Is resilience only skin deep? Rural African Americans' socioeconomic status-related risk and competence in preadolescence and psychological adjustment and allostatic load at age 19. *Psychological Science*, *24*(7), 1285-1293. doi: 10.1177/0956797612471954
- Dover, T.L., Major, B., Kunstman, J.W., & Sawyer, P.J. (2015). Does unfairness feel different if it can be linked to group membership? Cognitive, affective, behavioral and physiological implications of discrimination and unfairness. *Journal of Experimental Social Psychology*, *56* (1), 96-103. doi: 10.1016/j.jesp.2014.09.003
- Dovidio, J.F., Penner, L.A., Albrecht, T.L., Norton, W.E., Gaertner, S.L., & Shelton, J.N. (2008). Disparities and distrust: The implications of psychological processes for understanding racial disparities in health and health care. *Social Science & Medicine*, *67*(3), 478-486. doi: 10.1016/j.socscimed.2008.03.019
- Eliezer, D., Major, B., & Mendes, W.B. (2010). The costs of caring: Gender identification increases threat following exposure to sexism. *Journal of Experimental Social Psychology*, *46*(1), 159-165. doi: 10.1016/j.jesp.2009.09.015
- Gibbons, F.X., Etcheverry, P.E., Stock, M.L., Gerrard, M., Weng, C.Y., Kiviniemi, M., & O'Hara, R. E. (2010). Exploring the link between racial discrimination and substance use: what mediates? What buffers? *Journal of Personality and Social Psychology*, *99*(5), 785-801. doi: 10.1037/a0019880
- Lewis, T.T., Aiello, A.E., Leurgans, S., Kelly, J., & Barnes, L.L. (2010). Self-reported experiences of everyday discrimination are associated with elevated C-reactive protein levels in older African-American adults. *Brain, Behavior, and Immunity*, *24*(3), 438-443. doi: 10.1016/j.bbi.2009.11.011
- Lewis, T.T., Cogburn, C.D., & Williams, D.R. (2015). Self-reported experiences of discrimination and health: Scientific advances, ongoing controversies, and emerging issues. *Annual Review of Clinical Psychology*, *11*, 407-440. doi: 10.1146/annurev-clinpsy-032814-112728
- Lick, D.J., Durso, L.E., & Johnson, K.L. (2013). Minority stress and physical health among sexual minorities. *Perspectives on Psychological Science*, *8*(5), 521-548. doi: 10.1177/1745691613497965
- Major, B., Mendes, W.B., & Dovidio, J.F. (2013). Intergroup relations and health disparities: A social psychological perspective. *Health Psychology*, *32*(5), 514-524. doi: 10.1037/a0030358
- Moradi, B., Dirks, D., & Matteson, A.V. (2005). Roles of sexual objectification experiences and internalization of standards of beauty in eating disorder symptomatology: A test and extension of Objectification Theory. *Journal of Counseling Psychology*, *52*(3), 420-428. doi: 10.1037/0022-0167.52.3.420

- Mossakowski, K.N. (2003). Coping with perceived discrimination: Does ethnic identity protect mental health?. *Journal of Health and Social Behavior*, 44(3), 318-331. doi: 10.2307/1519782
- Pascoe, E.A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological Bulletin*, 135(4), 531-554. doi: 10.1037/a0016059
- Schneider, E.C., Zaslavsky, A.M., & Epstein, A.M. (2002). Racial disparities in the quality of care for enrollees in Medicare managed care. *Journal of the American Medical Association*, 287(10), 1288-1294. doi: 10.1001/jama.287.10.1288
- Smedley, B.D., Stith, A.Y., & Nelson, A.R. (Eds.). (2002). *Unequal treatment: Confronting racial and ethnic disparities in health care*. Washington DC: National Academies Press.
- Szanton, S.L., Rifkind, J.M., Mohanty, J.G., Miller III, E.R., Thorpe, R.J., Nagababu, E., ... & Evans, M.K. (2012). Racial discrimination is associated with a measure of red blood cell oxidative stress: A potential pathway for racial health disparities. *International Journal of Behavioral Medicine*, 19(4), 489-495. doi: 10.1007/s12529-011-9188-z
- Williams, D.R., & Mohammed, S.A. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioral Medicine*, 32(1), 20-47. doi: 10.1007/s10865-008-9185-0
- Williams, D.R., & Mohammed, S.A. (2013). Racism and health I: Pathways and scientific evidence. *American Behavioral Scientist*, 57(8), 1152-1173. doi: 10.1177/0002764213487340.

### Further Reading

- Hatzenbuehler, M. L., Phelan, J. C., & Link, B. G. (2013). Stigma as a fundamental cause of population health inequalities. *American Journal of Public Health*, 103(5), 813-821.
- Lewis, T.T., Cogburn, C.D., & Williams, D.R. (2015). Self-reported experiences of discrimination and health: Scientific advances, ongoing controversies, and emerging issues. *Annual Review of Clinical Psychology*, 11, 407-440.
- Major, B., Mendes, W.B., & Dovidio, J.F. (2013). Intergroup relations and health disparities: A social psychological perspective. *Health Psychology*, 32(5), 514-524.
- Pascoe, E.A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological Bulletin*, 135(4), 531-554.
- Williams, D.R., & Mohammed, S.A. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioral Medicine*, 32(1), 20-47.

### Biographical Note

**Tessa L. Dover** is a Social Psychology Ph.D. candidate in UC Santa Barbara's Department of Psychological and Brain Sciences. She researches the mental and physical health consequences of group-based unfairness among high-status and low-status groups. Her main focus involves the interplay between group status and fairness beliefs in predicting responses to identity-relevant social cues.

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Dr. Brenda Major is a Distinguished Professor in the Department of Psychological and Brain Sciences at the University of California, Santa Barbara. She is an international expert in the psychology of stigma and how people perceive and cope with stigma and discrimination. A core theme of her work is psychological resilience – how people maintain their sense of self-esteem, psychological well-being and physical health despite exposure to discrimination, negative life events, and adversity.