

Racism and the Life Course: Taking Time Seriously

The adage “time is money” signifies that time itself is a major social resource, but the role of time as a determinant of health inequities remains underappreciated. Time is fundamental to health promotion and human agency, as in having time to exercise and maintain social relationships. Further, scarcity in time is related to stress and illness.

Time is also racialized, such that racial/ethnic minorities often have less free time and suffer a time penalty in multiple facets of life. Such penalties manifest in problems such as greater time in prison or more time spent accessing services.

We argue that time may be a social determinant of health that is shaped by racism across the life course. We focus on three aspects: time as age, time as exposure, and time as a resource and privilege. We distinguish between chronological age, biological age, and social age. We discuss issues of accelerated aging and potential interconnections with critical periods. We also examine racial inequities in time. By more deeply considering time, we may advance our understanding of racial inequities in health. (*Am J Public Health*. 2019;109: S43–S47. doi:10.2105/AJPH.2018.304766)

Gilbert C. Gee, PhD, Anna Hing, MPH, Selina Mohammed, PhD, Derrick C. Tabor, PhD, and David R. Williams, PhD

The study of racism and its manifestations, such as racial discrimination, has become increasingly important in the study of health inequities. More often than not, reports of discrimination are associated with greater morbidity.^{1,2} This body of work has expanded to consider new outcomes and social groups, not only within the United States but across the world. The greatest recent strides in research may include an elaboration as to the types of biomarkers, often connected to stress and allostatic load, that are related to self-reported discrimination. Nonetheless, as we take stock in the body of research, there is still much room to deepen our understanding. The perspective of intersectionality emphasizes that racism is connected to other systems of inequity. Borrowing from that perspective, we examine how time may be related to racism, aging and the life course, and health inequities.

Racism is an organized and dynamic system in which the dominant racial group, based on a hierarchical ideology, develops and sustains structures and behaviors that privilege the dominant group, while simultaneously disempowering and removing resources from racial groups deemed inferior.³ In the US context, Whites are the privileged group that benefits from racism. Racism operates on multiple levels, and manifests through differential societal policies and norms, unfair treatment by social institutions, and negative beliefs (stereotypes), attitudes

(prejudice), and behaviors (discrimination) toward non-dominant racial groups. Historically, in the United States, racism has been sustained through explicit policies and practices, such as slavery, the Indian Removal Act, the internment of Japanese Americans, and Jim Crow laws. In contemporary society, racism still persists in institutional policies (e.g., residential segregation, mass incarceration, immigration policies, voter suppression) and societal norms that are often unrecognized (e.g., using Whites as the reference group to which others are compared).³ At the individual level, racial bias persists through both explicit and intentional discrimination, and also through implicit (unconscious) and automatic processes.² Although these multiple levels of racism are often studied separately, they are reciprocally interdependent and dynamically reinforce each other.⁴ The net effect of racism is to constrain agency among people of color, and to foster racial inequity in opportunities and outcomes.

Racism shapes the life course, a perspective for understanding

how human experiences unfold over time.⁵ At the interpersonal level, the life course perspective recognizes that development is not simply the addition of age to a person's life, progression through predictable stages, or cellular aging and senescence. Rather, it emphasizes that human development is profoundly social: the ages of 18, 21, 65, and 100 years are more important for social, legal, and symbolic implications than for biological reasons. Progression through the life course means that individuals interact with a variety of new social institutions that all have the potential to discriminate. Studies are emerging that document how discrimination unfolds over the life course. Time is a critical component of the life course, which needs to be understood in all of its complexity. This includes time as age, time as exposure, and time as resource. (For space reasons, we will not discuss other dimensions of time such as historical period, cohorts, and cumulative disadvantage.) The box on page S46 summarizes these ideas, which are elaborated in this commentary.

ABOUT THE AUTHORS

Gilbert C. Gee and Anna Hing are with the Fielding School of Public Health, University of California, Los Angeles. Selina Mohammed is with the School of Nursing and Health Studies, University of Washington, Bothell. Derrick C. Tabor is with the Center of Excellence and Small Business Programs, National Institute on Minority Health and Health Disparities, National Institutes of Health, Bethesda, MD. David R. Williams is with the Harvard T.H. Chan School of Public Health, Harvard University, Boston, MA.

Correspondence should be sent to Gilbert C. Gee, PhD, Fielding School of Public Health, University of California, Los Angeles, 650 Charles E. Young Drive South, Room 46-081C, Los Angeles, CA 90095 (e-mail: ggee@ucla.edu). Reprints can be ordered at <http://www.ajph.org> by clicking the “Reprints” link.

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TIME AS AGE

At first glance, “age” seems straightforward. It is most often defined as the number of years since birth, also known as chronological age. Yet chronological age does not necessarily coincide with biological age or social age.

Biological age refers to the notion that our body’s organs might be older or younger than what we expect for a given chronological age. One example is accelerated aging, or “weathering,” which refers to the idea that minority populations become older faster through the “wear and tear” on their bodies that result from chronic exposure to social adversity.⁴ Consistent with this idea, research shows that African Americans have earlier onset of disease, greater morbidity at younger ages, shorter telomere lengths (an indicator of more rapid cellular aging), and a shorter life expectancy compared with Whites.^{5,6} These observations are consistent with the hypothesis that experiencing racism can accelerate biological age.

Similarly, social age refers to the age that we perceive ourselves to be or that others perceive us to be—which, again, may not coincide with our chronological age. An example comes from the shooting of Tamir Rice by a Cleveland police officer. According to reports, his death was rationalized by the police department as, “[Rice] is menacing. He’s 5-feet-7, 191 pounds. He wasn’t that little kid you’re seeing in pictures. He’s a 12-year-old in an adult body” (https://www.huffingtonpost.com/2015/03/02/cleveland-apologizes-blam_n_6787600.html). Research corroborates these anecdotes. One study indicated that Black boys were perceived as 4.5 years older than their actual age,

indicating that a 13-year-old boy could be perceived as an adult.⁷ The study also noted that Black and White youths are rated as equally innocent until age 10 years, at which point Black youths are rated as less innocent than White youths.⁷ Moreover, research suggests that Black males are often perceived not only as older but more physically threatening. One study found that Black men were perceived as heavier, taller, and more physically threatening than White men regardless of their actual height, weight, and musculature.⁸ These perceptions then led to justification for more aggressive measures by police against Black men than White men in hypothetical situations.

Accordingly, the concept of accelerated aging might be relevant not only to biological age but also to social age. Furthermore, we can muse on the idiom that “with age comes wisdom,” raising the question of whether accelerated aging also spurs wisdom and psychosocial maturity. Such research would be consistent with a resilience perspective that focuses not only on the deficits of minority populations but on their strengths as well.

TIME AS EXPOSURE

A classical approach in epidemiology is to examine how an exposure contributes to an illness that develops after some latency period. This latency period could be quite long, as in the case of sunlight exposure and the manifestation of skin cancer, or nearly zero, as in the case of a gunshot wound leading to fatality. Exposure to racism may mirror such diversity of effects. Encounters with subtle racial insults might require repeated exposures or a long latency period before disease

manifests (or both), whereas exposure to a hate crime might have a very short one.⁵ A shared difficulty of exposure to sunlight and racism is that both can be present across one’s entire life. Thus, it may be nearly impossible to pinpoint the onset of the exposure, although it might be possible to consider moments when the exposure is greater, as in the case of a major sunburn or hate crime.

At present, we have only indirect ways to capture the onset of exposure to racism or its fluctuations. Popular instruments, such as the Everyday Discrimination Scale, ask about frequency of exposure, and a few studies have suggested that repeated reports of such discrimination over many years are more strongly correlated with health problems compared with single reports.^{2,9} However, such scales do not capture when these experiences first occurred, which would be useful in considering how exposure manifests as disease. Moreover, as Figure 1 shows, reports of workplace discrimination based on age, gender, and race appear to vary cyclically over the life course among working women.¹⁰ For example, the reporting of age discrimination shows a U shape, the reporting of gender discrimination shows an inverted U shape, and the reporting of racial discrimination shows a relatively linear slope across age.

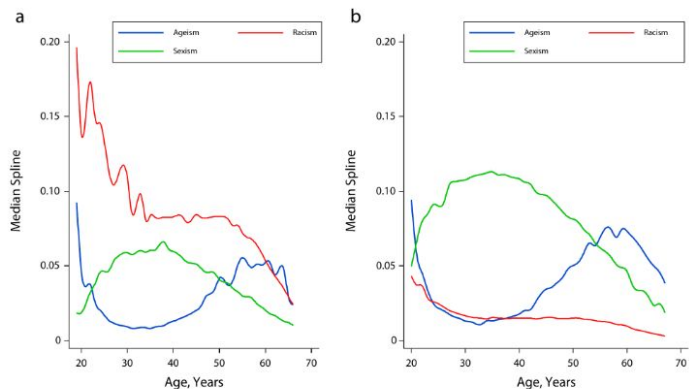
These problems about timing are encountered in the study of stressors more generally. One option is to collect stress diaries or to employ ecological momentary assessments. For example, one daily diary study indicated that reports of discrimination were related to alcohol consumption on the same day as the discriminatory incident,¹¹ whereas another study found that

discrimination was associated with depressive symptoms after a few days’ lag.¹² The next generation of research needs to have a more detailed and nuanced understanding of the timing and nature of exposure to discrimination and the subsequent development of morbidity.

A related idea focuses on sensitive and critical periods, which refers to the notion that exposure to adversity at some ages is more toxic than at other ages. For example, one study suggested that early exposure to discrimination among Black youths aged 8 to 11 years was particularly harmful regarding development of substance abuse five years later.¹³ Current evidence suggests that stressors encountered during childhood may be particularly impactful, and might result from changes in brain development that dampen the ability to regulate emotions and process stimuli, increase dysregulation of neuroendocrine and autonomic responses, and increase vigilance to stressors.¹⁴ This suggests that stressors encountered during childhood or youth can heighten one’s vulnerability to new stressors while simultaneously reducing one’s ability to cope with them.

Moreover, we suggest that the idea of critical and sensitive periods be integrated with that of accelerated aging. It is presently not known whether critical periods vary by race, but it would be useful to investigate this important hypothesis. If stressors encountered in critical periods heighten subsequent vulnerability to stressors, then perhaps encounters of racism during critical periods could contribute to the onset of accelerated aging.

Finally, although sensitive and critical periods are typically framed with regard to risk factors, the ideas can generalize toward



Source: Adapted from Gee.¹⁹

FIGURE 1—Reports of Workplace Discrimination Among Black and White Women (n = 10 242): National Longitudinal Surveys of Mature and Young Women, United States, 1972–1989

beneficial effects. This is the logic of many interventions that help children succeed in school or adopt healthy diets before they get older. Taking the idea further, perhaps there are critical periods for becoming nonprejudicial or when antiracism efforts are particularly efficacious for promoting equity. Aligned with these ideas is research showing that early-life interventions for saving money may be particularly useful in reducing economic disparities in later life.¹⁵

TIME AS RESOURCE AND PRIVILEGE

Time is a valued resource, per the adage “time is money.” Time has been deemed by some to be a social determinant of health, much like other resources such as

income and wealth.¹⁶ Yet, with rare exceptions, time as a social resource is typically not considered in most studies of health disparities. We suggest that this is an important area for growth, for several reasons.

First, time is strongly related to health promotion, stress, and illness. People need time to visit the doctor, exercise, and maintain social relationships.¹⁶ Lack of time is often cited as a reason for not engaging in salutogenic behaviors and for taking “shortcuts” that may contribute to morbidity. For example, scarcity of time is related to fewer family meals and greater consumption of fast food.¹⁷ It is also a stressor that has been correlated with poor health outcomes.¹⁶ Furthermore, time is needed to restore the body, as in rest after injury or adequate hours of sleep.

Second, time is socially patterned, such that disadvantaged populations have less free time and more time scarcity.¹⁸ Studies have shown that minority populations often have a time disadvantage for many activities. For example, in a study that examined how long it took before a car would yield to a pedestrian crossing the street, African Americans waited longer than Whites.¹⁹ Other research found that African Americans and Hispanics waited longer to vote and receive health care than do Whites.^{20,21} Moreover, African Americans and Hispanics appear to spend more time in prison than do Whites for equivalent crimes.²² Thus, considerable evidence suggests that racial minorities are negatively penalized regarding time for things both mundane (e.g., crossing the

street) and consequential (e.g., imprisonment).

Third, some of these differences in time may result from structural racism and discrimination.³ As an example, Masey and Lundy performed a paired-testing study, a methodology often used to uncover discrimination.²³ It involved callers who used “Black vernacular” and “White” accents, but who were identical with regard to other characteristics (e.g., income, type of apartment desired). Their study suggested that Black-sounding callers took twice as long to find an apartment than did White-sounding callers. Similar findings were seen in a paired-testing study of racial disparities in seeking an appointment for mental health care.²⁴

To summarize, racism may manifest as lost time among minority communities, which can

RECOMMENDATIONS FOR STUDYING TIME AND RACISM

Recommendation	Rationale
Disentangle chronological, biological, and social age.	Chronological age may have a different relationship to health compared with biological age and social age. Some research suggests that racial minorities may have biological and social ages that exceed their chronological ages, in part through the effects of racism. Research should consider these dimensions of age simultaneously.
Deepen our understanding of the temporal nature of exposure to racism and discrimination.	Experiences of discrimination are related to health inequities, but it is unclear if there are critical-sensitive periods when such exposures are most toxic; how much chronicity matters versus acute events; and what latency periods, if any, are most relevant to different outcomes. Studies should more fully study these temporal phenomena.
Consider time as a dimension of social inequality.	Time is a social resource that is necessary for health maintenance and healing, including recovery from injury, adequate sleep, and time to enact preventive behaviors. Furthermore, time can be seen as a type of capital that shows racial inequities in much the same manner as other forms of capital, such as wealth. Research should study how inequities in free time and time scarcity may be connected to structural racism and health inequities.
Examine resiliency with regard to studying time and the life course.	Several of the phenomena reported herein, such as accelerated aging and critical periods, are typically framed from a "risk" and "deficit" model. However, some of these same phenomena could be reframed to focus on resiliency and protective factors. For a complete accounting of such phenomena, it will be critical for future research to consider both negative and positive aspects.

then contribute to health inequalities through mechanisms such as stress and impediment of health promotion. Because time is differentially allocated by race, time may account for some of the racial inequities in health. Conversely, this also implies that racial/ethnic minorities potentially have the most to gain by interventions that promote time equity. Thus, we suggest that future research integrate measures of time scarcity and systematically study how inequities in time may be related to inequities in health.

CLOSING

The life course perspective directs us to consider time in

dimensions far beyond that of chronological age and linear human development. Attending to time seriously will require several changes to research methodology. The study of critical and sensitive periods can be partially accomplished by considering the statistical interaction of chronological age with exposure. The study of biological age might be accomplished through the collection of certain biomarkers, such as telomere length and DNA methylation. Social age might be measured through a combination of age as perceived by oneself and by external assessors.²⁵ Time as resource can be measured via questionnaires on time scarcity, time use diaries, and ecological momentary assessments.^{16,18}

Questionnaires can also assess ageism. However, these methods all require shifting our attention to analyzing components of time, not merely considering it a background or nuisance measure. Time is one of the most important dimensions of society, regulating our days, nights, work, and leisure. Time enables people to act independently and willfully. However, inequities exist in time, such that racial minorities have shorter life expectancy and less leisure time, and simultaneously spend more time in undesirable circumstances, such as in awaiting medical services and being incarcerated. It is plausible that structural racism accounts for racial inequities in time. This also suggests that interventions that eliminate racism

may free additional time for people of color, allowing them agency to promote their own health and reduce health inequities. **AJPH**

CONTRIBUTORS

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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