Ethnicity and Disease 6(1,2): 132-147, 1996.

RACISM AND THE PHYSICAL AND MENTAL HEALTH STATUS OF AFRICAN AMERICANS: A THIRTEEN YEAR NATIONAL PANEL STUDY

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This paper examined the relationships between the experiences and perceptions of racism and the physical and mental health status of African Americans. The study was based upon thirteen year (1979 to 1992), four wave, national panel data (n=623) from the National Survey of Black Americans. Personal experiences of racism were found to have both adverse and salubrious immediate and cumulative effects on the physical and mental well-being of African Americans. In 1979-80, reports of poor treatment due to race were inversely related to subjective well-being and positively associated with the number of reported physical health problems. Reports of negative racial encounters over the 13-year period were weakly predictive of poor subjective well-being in 1992. A more general measure of racial beliefs, perceiving that whites want to keep blacks down, was found to be related to poorer physical health in 1979-80, better physical health in 1992, and predicted increased psychological distress, as well as, lower levels of subjective well-being in 1992. In conclusion, the authors suggested future research on possible factors contributing to the relationship between racism and health status among African Americans. (*Ethnicity Dis.* 1996;6:132–147)

KEY WORDS Racism, Health, Mental Health, African Americans, National Longitudinal Panel

INTRODUCTION

The purpose of this study was to investigate the consequences of racism for the physical and mental health of African Americans. The study seeks to (1) assess the nature of perceived racism and reports of maltreatment because of race, and (2) evaluate the influence of these perceptions and experiences on physical and mental health statuses in a national sample followed during a 13-year period, from 1979 to 1992.

Consistent with their subordinated position, blacks experience unequal outcomes across a variety of societal indicators.[1] Health status is one area of persistent and pervasive racial disparities. From the earliest records, blacks have experienced, and continue to experience higher rates of illness, disability, and mortality than whites. However, the specific factors that are responsible for these racial disparities in health have not been clearly delineated.[2,3] Health research that will advance an understanding of the role of race as a social category must seek to identify the ways in which economic, ideological, political, and cultural forces, as well as racial discrimination, shape the daily experiences of people in ways that promote illness or hinder wellness.[3,4]

The concept of racism is frequently invoked as a major explanatory factor for the excess levels of disease and death in the African-American population. Racism can affect the health status of African Americans in several ways. First, differential treatment based on race (racial discrimination) can lead to differences in the quality and quantity of medical care.[5,6] Second, ra-

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cism and racial discrimination create differences in life chances and living conditions that are reflected across a broad range of socioeconomic indicators, including housing quality, employment, and education.[7] In turn, poorer life chances are associated with low socioeconomic status (SES), which is one of the most potent predictors of adverse changes in health status.[8] Despite this well-established relationship, the specific mechanisms and processes by which low SES gives rise to stressors and other risk factors that compromise the health of African Americans have yet to be adequately elucidated.[7,8]

Third, the experience of specific incidents of racial bias may adversely affect health. The experience of unfair treatment based on one's race may generate psychic distress and other alterations in physiological processes. In addition, some of the strategies used by members of subordinate groups to cope with deplorable living conditions and a hostile psychosocial environment may also impair physical and mental functioning. Consistent with these expectations, the early literature on black mental health concluded that racial discrimination and racism would adversely impact the psychological well-being of African Americans.[9] Although the existence of this relationship is widely accepted, there have been few empirical attempts to assess the nature and magnitude of this association.

A small but growing body of evidence has begun to document that the experience of racial bias is inversely associated with mental health status. A study of Mexican-American women residing in southern California found that racial discrimination was associated with higher levels of psychological distress.[10] In this study, the experience of racial discrimination, based upon being Mexican, was one of 12 indicators of stress assessed. The reported level of racial bias was high with more than half (52%) of the women indicating they had experienced discrimination in the previous three months. The CES-D Depression Scale was the measure of mental health status utilized in this study, and racial discrimination was more strongly related to a high level of depressive symptoms than any of the other measures of stress. A study of female Hispanic professionals found very high levels of employment-related racial discrimination.[11] Eighty-two percent of the women in this study reported that they had experienced racial discrimination at work. Discrimination was associated with higher levels of stress, defined in terms of balancing family and professional roles. In addition, discrimination was associated with lower levels of personal life satisfaction, and higher levels of psychological distress.

It also appears that racial discrimination can adversely affect physical health outcomes. Some studies of hypertension have found a positive relationship between the experience of unfair treatment and blood pressure. In a classic study of stress and hypertension in Detroit, Harburg and colleagues[12] examined the associations among blood pressure, stress and the emotional response to stress for black and white males. They found that holding anger in, or feeling guilty about displaying anger in response to being unfairly treated in two hypothetical situations (arbitrary police anger and housing discrimination), was positively associated with blood pressure. This relationship was true for both black and white males, but persons in poorer neighborhoods were more likely to demonstrate a passive response to unfair treatment than those in more wealthy areas. Similarly, a study of black males in rural North Carolina found a positive association between blood pressure and the perception that being black hindered one's chances for success among those who were actively seeking to improve their socioeconomic status.[13]

Krieger's[14] study of black and white women provides further evidence that racial discrimination is associated with hypertension. Although gender discrimination was

unrelated to hypertension in this study, black women who passively responded to racial discrimination (kept quiet and accepted it) were four times more likely to have high blood pressure than those who coped in a more active manner (talked to others or took other action). Black women were also six times more likely than whites to respond passively to unfair treatment. These findings suggest that black women accurately perceive themselves as realistically having little control in or over these encounters. Interestingly, African-American women who reported that they had never experienced racial bias were two to three times more likely to have hypertension than their counterparts who had experienced racial discrimination. Given the pervasive presence of racial bias in contemporary American life,[15,16] failure to report discrimination may reflect an internalized denial of racial bias that leads to adverse changes in health. This interpretation is consistent with evidence that suggests that individuals who respond to stressful situations by denying the stress or suppressing emotional reaction to it, may be more adversely affected.[17]

Recent analyses of data from the first wave of the National Survey of Black Americans (NSBA) revealed that the experience of racial discrimination in the previous month, as well as the experience of racial discrimination in employment settings, was adversely related to multiple indicators of physical and mental health.[18] That is, persons who report experiencing discrimination have higher levels of chronic health problems, disability, and psychological distress, and lower levels of happiness and life satisfaction. In a related study of perceived discrimination in the workplace and job satisfaction using the NSBA, Kirby and Jackson[19] found that perceptions of job discrimination were associated with lowered reports of job satisfaction among blacks, and that racial composition of the immediate workgroup had a salutary effect upon this observed adverse relationship.

In this study, trends in the reports of experiences and perceptions of racism and mental and physical health statuses in a national panel sample of adult African Americans over four data collection points from 1979-80 to 1992 were examined. After describing the mean differences in racism and health across data collection Waves, the independent effects of racism on health at Waves 1 and 4 was explored, controlling for poverty status, education, gender, age, region, and previous health status. Even though this research was largely exploratory, it was expected to find that racism has adverse immediate and cumulative effects on health status among African-American adults.

Methods

Sample

Respondents from the National Survey of Black Americans (NSBA) were interviewed at four points in time beginning in 1979-80. The 1979-80 face-to-face NSBA survey was based upon a national multistage household probability sample of 2,107 self-identified African-American adults living in the continental United States. The overall response rate was approximately 67%. Nearly 80% of the sample resided in urban areas, geographical locations that tend to be the most difficult locations for face-to-face interviewing. The 1979-80 NSBA data collection was followed by three more Waves of smaller, yet comprehensive, telephone data collections in 1987-88, 1988-89 and 1992. The relatively large number of African Americans in the initial cross-sectional sample, its wide age range (18 to 101 years of age), and the 13-year time span, provide a comprehensive base for the panel analyses conducted in this study.

As shown in Table 1, of the original 2,107 Wave 1 respondents, 951 were re-interviewed in 1987 (Wave 2). Eighty-seven refused to participate, 102 were reported to have died and 134 were too sick to com-

TABLE 1.—Sample Characteristics: 1979–1992

Category	Year			
	1979/1980	1987/1988	1988/1989	1992
Completed sample size	2107	951	793	630
Total sample	3428	1324	951	793
Response rate #1*	67.0%	77.8%	84.4%	83.2%
Response rate #2†	67.0%	87.4%	88.9%	85.4%
Refusals	774	87	59	32
Interview length (in minutes)	141	54	46	52
Number lost to tracking		783	0	0
Deaths		102	11	36
Too ill		134	48	19
Not found		50	40	76

* Those deceased were excluded from the response rate calculation.

† Both those who were deceased and too ill were excluded from the response rate calculation.

plete the interview. The high rate of attrition at Wave 2 was largely due to an inability to locate many (783) of the cross-sectional respondents. Three primary factors contributed to this inability to locate Wave 1 respondents. First, a period of eight years transpired between Wave 1 and Wave 2 data collections. Second, the initial study was not designed as a panel study and therefore very limited re-contact information was obtained in 1979-80. Third, over half of the initial 1979-80 cross-sectional sample were not homeowners and thus were highly mobile. Wolford and Torres[20] found that home ownership at Wave 1 was the main predictor of response in subsequent Waves.

TABLE 2.—Comparisons of 1979–80 Cross-section and Panel Samples

	Cross-Section (N = 2107)	Panel (N = 623)	Difference
	1979–80		
Income to needs ratio	1.99	2.46	−0.47‡
Education	10.90	11.87	−0.97‡
Region (% south)	53.4%	53.9%	−0.50
Age	43.21	41.68	1.53†
Gender (% female)	62.2%	68.7%	−6.50‡
Whites want to keep blacks down (% yes)	39.2%	42.4%	−3.20
Treated badly due to race in past month (% yes)	11.2%	10.8%	0.40
Life satisfaction	3.04	3.08	−0.04
Happiness	2.13	2.19	−0.06†
Number of health problems	0.97	0.86	0.11*
Health disability	2.69	2.24	0.45‡
Psychological distress	3.34a	3.24a	0.10*

* $P < .10$.

† $P < .05$.

‡ $P < .01$.

[a] Cross-section N = 1307 and Panel N = 393.

The third Wave of data was collected one year later, and 793 (84%) of the 951 second wave respondents were reinterviewed. The fourth Wave of data was collected three years later: the sample size was 630 respondents. Seven of these individuals were interviewed at Wave 2 but not at Wave 3. Thus, the panel data represent 623 respondents over four Waves.

We restricted the analyses in this paper to the 623 respondents who participated in all four Waves of data collection. Table 2 presents the comparisons of the variables used in the analyses between the full cross-section and panel samples at Wave 1 (1979-80). The panel sample differed significantly

from the full cross-section sample on several variables. Panel respondents have a higher income to needs ratio (lower poverty), a higher level of education, are somewhat younger, more likely to be female, more happy, have lower health disability, and marginally less psychological distress and somewhat fewer health problems.

The panel sample represents survivors over the thirteen year period. Thus, it was not unexpected to find females, those with higher socioeconomic resources and lower chronic health conditions to be over-represented. On the other hand, the panel and cross-section samples did not differ significantly in region distribution, perceptions and experiences of racism, and life satisfaction. The major reason for using panel data was to avoid possible spurious effects due to changes in sample composition over time. Some of the effects of differences in the panel sample, as compared to the full, cross-section sample, were controlled through inclusion of relevant sociodemographic variables in the multivariate analyses. Regardless, since the panel sample represents a somewhat more fortunate group of African Americans, our analyses were conservative and may have underestimated the extent of the relationships of interest. Cross-sectional analyses conducted at all four Waves (not reported here) support this underestimation hypothesis, in that the relationships of interest are stronger in the cross-sectional analyses.

Variables

Five sociodemographic variables were used in this study's analyses: 1) the income-to-needs ratio used is a traditional measure of poverty that adjusts total family income for household size and composition, and for estimates of family members' basic needs. This is similar to the measure used in other national surveys (e.g. the Panel Study of Income Dynamics) and is described in detail elsewhere;[21] 2) education was measured at Wave 1 by the number of years of education completed; 3) region was a collapsed variable that compares those living in the traditional southern states with those living in all other places in the United States; 4) age was measured by the number of years since birth; 5) gender was interviewer-reported in the Wave 1 data collection.

Two measures of racism were used: one was a perception of whites' intentions, and the other was a report of racial discrimination experiences. The perception of whites' intentions was a measure developed originally in a 1968 study of 15 cities.[22] The measure asked respondents to select from three choices—whites want to keep blacks down; whites want to see blacks get a better break; or, whites just don't care one way or the other about blacks. The second measure of racism asked blacks to indicate whether they or their family had been treated badly because of their race in the past month. Both racism measures were included in all four Waves.

Two indicators of subjective well-being and one of psychological distress were utilized as measures of mental health status. Subjective well-being was assessed by two traditional single-item measures. The first, life satisfaction, asked, "in general, how satisfied are you with your life these days," and individuals responded on a four point scale of very dissatisfied to very satisfied. The second, happiness, asked respondents, "taking all things together, how would you say things are these days—would you say you are very happy, pretty happy or not too happy these days." This measure was reverse-coded so that "very happy" was the highest value.

A seven-item scale of psychological distress was used. These items inquired about how respondents may have felt or acted during the time that they were having trouble with a serious personal problem. A five-point scale ranging from "never" to "very often" was used to assess respondents' feelings about being lonely, just couldn't get going, depressed, jumpy or jittery, and hav-

ing crying spells, loss of appetite, and trouble sleeping. This scale had a Coefficient Alpha of .80 at Wave 1, .83 at Wave 2, .86 at Wave 3 and .85 at Wave 4. The psychological distress items were only asked of those respondents who reported a serious personal problem. At Wave 1, 64%, and at Wave 4, 60% of the sample reported having had a serious personal problem over their life-time (or since their last interview at Wave 4). Consequently, the number of respondents included in the analyses on psychological distress are reduced by approximately 40%, from 623 to 393. One of the limitations in conducting secondary data analysis is that variables of interest are often developed for different purposes. The 'serious problem' screening question was part of a section on professional help-seeking. Thus, it was not possible to analyze the distribution of psychological distress for the entire panel sample. Other mental health indicators (i.e., happiness, life satisfaction) included in the analyses were assessed in the entire sample. Contrasts across these variables should reveal whether the analyses on the psychological distress subsample show distinctly different patterns.

Two measures were used as indicators of physical health status. Health problems was a count of the number of doctor-reported serious health conditions. Health disability was constructed as an average of the number of health problems reported, weighted by the individual's estimate on a three-point scale of how much the health problem kept him or her from working or carrying out daily tasks. The three-point scale of health disability ranged from "not at all," to "somewhat," to "a great deal."

Analyses

Repeated measures analyses of variance (ANOVA) were used to test for differences in racism and health outcomes across the four Waves of measurement. This technique assumes equal variances within Waves. Pearson correlations and Ordinary Least Squares (OLS) regression analyses were used to assess the independent contributions of the racism measures to the variance in mental health and physical health outcomes at Wave 1 (1979-80) and Wave 4 (1992), controlling for a set of important sociodemographic variables.

OLS regression analysis is a statistical technique used to account for variance in one variable by assessing its linear covariance with another variable.

OLS regression analysis permits the use of dummy variables which compute the regression coefficients as the mean difference between an included and excluded group(s). Dummy variables (0=Group A; 1=Group B) can be created to subdivide the sample into groups of interest without sacrificing degrees of freedom. Regression analysis also permits respondents to be equalized on selected control variables by including those controls in the model. By controlling for a variable, its effect is standardized across all respondents, removing its main effect. Regression analysis assumes first order, simultaneous effects of independent factors on a dependent outcome. Since panel data are being used and temporal priority is established, tentative causal inferences can be made from Wave 1 to Waves 2-4, assuming that appropriate control variables are included in the model.

RESULTS

Table 3 presents the trends in the measures of cumulative racism over the four Waves. The first racism measure counts the number of times across Waves 1-4 that a respondent mentioned perceiving that whites want to keep blacks down, or that whites don't care one way or the other, or that whites want to give blacks a better break. The range of responses is 0-4; four represents having the perception that whites want to keep blacks down at all Waves. The second racism measure counts the number of times across Waves 1-4 that a respondent mentioned having a racial problem in the

TABLE 3.—Distributions of Total Mentions of Racism: 1979 to 1992

	Number of Mentions Across All Four Waves					
	0	1	2	3	4	N
Perceived racism:						
Whites want to keep blacks down	264 43.1%	196 32.0%	86 14.1%	44 7.2%	22 3.6%	612
Whites don't care one way or the other	164 26.8%	168 27.5%	149 24.3%	89 14.5%	42 6.9%	612
Whites want to give blacks a better break	241 39.4%	134 21.9%	109 17.8%	86 14.1%	42 6.9%	612
Treated badly due to race in past month	476 76.4%	103 16.5%	30 4.8%	8 1.3%	6 1.0%	623

past month. The range of this measure is 0-4; four represents having experienced a racial problem in the past month at each Wave.

Overall, very few (3.6%) respondents perceive whites as wanting to keep them down at all four waves. Respondents were more likely to have multiple mentions of the perception that whites want to see blacks get a better break, and that whites don't care one way or the other, than the view that whites want to keep blacks down. Similarly, very few (1.0%) respondents report having a racial problem at all four Waves. Equally striking is the fact that most (76.4%) respondents did not report experiencing racial discrimination at any of the four data collection points over a 13-year period. On the surface, this appears to be a very low level of reporting of racial discrimination on the part of African Americans, given the claims that racial discrimination is frequent and routine.[15,16] However, this pattern probably reflects that the question consistently asked only about unfair treatment in the month prior to the interview. Thus, it probably missed significant racial incidents that occurred prior to this one month restriction. Consistent with the larger literature on stressful life events, researchers may want to consider using a one-year reference period in the assessment of racial bias. The findings of this study may also reflect an under-reporting error, since it is sometimes difficult to determine when one is discriminated against.

Table 4 presents the zero-order Pearson correlations for the cumulative measures of racism over the 13-year period and the health status measures. In general, the Wave 4 outcome variables are not "highly" correlated among themselves or with the racism measures. The observed correlations do, however, suggest some important associations. For example, life satisfaction is inversely (−.18) related to having experienced a racial problem. The perception that whites want to keep blacks down is positively associated with psychological distress (.14), but inversely related to happiness (−.09) and life satisfaction (−.08). The two racism measures are also moderately correlated (.25).

Table 5 presents the means or proportions on the racism and health status measures at each Wave of data collection. The repeated measure ANOVAs reveal significant differences across Waves 1-4 in both measures of racism and on all of the health status measures, except psychological distress. The perception that whites want to keep blacks down and the experience of a racial problem in the past month show a general pattern of significant decreasing trends from 1979-1980 to 1992. The precipitous decrease (42.4 to 19.9%) from Wave 1 to

TABLE 4.—Correlation Matrix Of Wave 4 (1992) Outcomes and "Total Mentions of Racism" (1979–1992)

	Life Satisfaction	Happiness	# of Health Problems	Health Disability	Psych Distress	Whites Want to Keep Blacks Down	Treated Badly Due to Race in Past Month
Life satisfaction	1.0000						
Happiness	0.4448†	1.0000					
# of health prob	−0.0100	−0.0565	1.0000				
Health disability	−0.0049	−0.0620	0.8707†	1.0000			
Psych distress	−0.0255	−0.2583†	0.0962	0.1133	1.0000		
Whites want to keep blacks down	−0.0845*	−0.0888*	−0.0575	−0.0411	0.1356*	1.0000	
Treated badly due to race in past month	−0.1826†	−0.1005*	−0.0628	−0.0412	0.0237	0.2475†	1.0000

* $P < .05$.
† $P < .01$.

Wave 2 in the percentage reporting that whites want to keep blacks down is noteworthy. The proportion of respondents who perceived whites as attempting to keep them down in 1979-1980 is unusually high, deviating markedly from the proportions at Waves 2-4. The findings of other researchers[22,23] resemble the patterns found at Waves 2-4, suggesting that Wave 1 proportions are unique. As discussed later, political trends may have contributed to this 1979-1980 spike in perceptions that whites want to keep blacks down. It was during this period that Ronald Reagan won the Republican nomination and later the general election. His candidacy and campaign signalled a more conservative political and social era. It may well have been that these events negatively influenced the general perceptions of white racial attitudes among African Americans. More research attention should be focused upon the changes in African-Americans' perceptions of whites in the early 1980s.

There is an overall positive linear trend for life satisfaction during this period, but the trends in the other health status indicators (happiness, number of health problems, and health disability) are not entirely linear.

Interestingly, in comparison to the other

TABLE 5.—Changes in Racism and Health Outcomes from 1979 to 1992

	N	Wave I 1979–80	Wave II 1987–88	Wave III 1988–89	Wave IV 1992	F-ratio
Whites want to keep blacks down	616	42.4%	19.9%	16.5%	19.1%	60.53†
Treated badly due to race in past month	622	10.8%	8.7%	5.6%	8.9%	4.68†
Life satisfaction	620	3.08	3.20	3.24	3.33	8.95†
Happiness	615	2.19	2.07	2.09	2.07	7.47†
# of health problems	621	0.86	1.10	0.83	1.09	24.53†
Health disability	616	2.24	1.81	1.51	1.93	17.80†
Psychological distress	393	3.24	3.41	3.12	3.23	1.49

* $P < .05$.
† $P < .01$.

Waves, indicators of both physical and mental health status at Wave 3 (1988) reveal a pattern of general optimism. Reports of health problems, health disability, and psychological distress are particularly lower than the Wave 2 levels, and are at the lowest levels reported over the 13-year period. Furthermore, Wave 3 had the lowest proportion of respondents reporting that they perceived whites as wanting to keep blacks down, as well as the fewest having a racial problem in the past month. This pattern of findings may reflect the impact of African-American perceptions of a changing political climate. Specifically, Jesse Jackson, an African-American male, was a serious contender for the Democratic party's presidential nomination in 1988. He ran the most successful presidential campaign bid by an African American in U.S. history. In 1988, he received greater support from whites than he had received four years earlier and to many, his candidacy symbolized the dawning of greater political opportunity for groups that had historically been excluded from power. One consequence of Jesse Jackson's campaign may have been new, more optimistic perceptions of America's racial climate in general and of the life chances of African Americans in particular.

It is suggested that 1984 and 1988 were particularly positive periods for the political and racial hopes and aspirations of African Americans.[23] Our second Wave of data collection in 1987 would have missed the impact of the 1984 Jackson candidacy as would have the fourth Wave of data collection in 1992. However, approximately 85% of the African Americans who participated in the 1984 National Black Election Study thought that "it was a good thing for Jackson to run for the presidency." In 1988, this approval rating was 86%. Furthermore, 70% of the respondents in 1984 felt that "if blacks, other minorities, the poor, and women pulled together then they could determine how this country is run." By 1988, 73% of respondents agreed with this statement. Direct statistical tests of the impact of these measures of optimism and solidarity on health status measures are not possible. It can only be speculated that these high levels of optimism generated by the Jackson candidacy may be reflected in the improved levels of health and low levels of racism reported at Wave 3 in the NSBA.

Relationships of racism measures to health status at Wave 1

The first step in the multivariate analyses was to examine the association between the racism measures and the health outcomes at Wave 1. As shown in Table 6, using OLS regression, controlling for income to needs ratio, education, region, age and gender, the two measures of racism were used as predictors of life satisfaction, happiness, number of health problems, health disability and psychological distress. Respondents who reported that whites want to keep blacks down had higher scores on both measures of physical health problems (health problems and health disability). But the perception that whites want to keep blacks down was unrelated to the measures of mental health status (life satisfaction, happiness, and psychological distress). Respondents who report being treated badly due to their race, have lower levels of life satisfaction and happiness, and a greater number of health problems and greater health disability. The coefficients were in the direction of a positive association between both racism measures and psychological distress, but they do not reach statistical significance. The results in Table 6 demonstrate several important points: 1) after controlling for substantively important sociodemographic variables, racism is still significantly related to health status; 2) the measures of racism used in this study tend to operate independently, manifesting different relationships with different health status indicators; and 3) there may be threshold effects of racism on health, such that having one experience is enough to adversely affect health status.

TABLE 6.—Regression Analyses Summaries: Predictors of Wave I (1979–80) Health Outcomes

1979–80 Sociodemographics and Racism Predictors	1979–80 Health Outcomes									
	Life Satisfaction		Happiness		# of Health Problems		Health Disability		Psych Distress	
	b	SE	b	SE	b	SE	b	SE	b	SE
1. Income to needs ratio	.049†	(.023)	.024	(.019)	−.050*	(.031)	−.161*	(.085)	−.022	(.034)
2. Education	−.013	(.012)	−.009	(.009)	−.037†	(.016)	−.169‡	(.043)	−.052‡	(.018)
3. Region (1 = south)	.270‡	(.062)	.071	(.050)	.017	(.085)	−.279	(.233)	.020	(.097)
4. Age	.008‡	(.002)	.007‡	(.002)	.030‡	(.003)	.058‡	(.009)	−.011‡	(.004)
5. Gender (1 = female)	−.052	(.067)	−.036	(.054)	.267‡	(.091)	.475*	(.250)	.424‡	(.108)
6. Whites want to keep blacks down (1 = yes)	−.038	(.061)	−.033	(.050)	.152*	(.083)	.506†	(.229)	.107	(.095)
7. Treated badly due to race in past month (1 = yes)	−.398‡	(.097)	−.226‡	(.079)	.235*	(.133)	.760†	(.364)	.104	(.141)
Constant	2.695		1.966		−.116		1.763		3.977	
Adjusted R-squared	8.44%‡		4.41%‡		21.44%‡		17.35%‡		7.47%‡	

* $P < .10$.
† $P < .05$.
‡ $P < .01$.

These threshold effects may be related to age or other sociodemographic or socioeconomic status factors, as well as the nature and type of prior racial socialization experienced by African Americans.

Cumulative effects of racism on Wave 4 health status

Table 7 presents the results of the OLS regression examining the cumulative effects of racism on measures of mental and physical health outcomes at Wave 4, controlling for sociodemographic variables. The Wave 1 (1979) control variables of income to needs ratio, education, region, age, gender, and Wave 1 health status were included. Our models attempt to predict Wave 4 (1992) life satisfaction, happiness, number of health problems, health disability, and psychological distress using two measures of racism, controlling for respondent's baseline (Wave 1) characteristics and health status.

Dummy variables were created to represent the number of times respondents mentioned experiences and perceptions of racism, with zero mentions as the excluded category. Some categories were collapsed for both racism measures. Few respondents reported experiencing a racial problem in the past month and that whites want to keep blacks down at all four Waves (See Table 3). The adjusted R^2s in Table 7 remain relatively modest, and the standardized beta coefficients (not reported in the table) suggest that the Wave 1 health measures account for much of the predictive power of each model. Education and age also share predictive power on some outcomes, but the measures of racism are the central variables of interest.

Respondents who reported that whites wanted to keep blacks down once over the 13-year period had lower levels of life satisfaction and happiness than those who never had this perception of racism. However, respondents who perceived that whites wanted to keep blacks down two or more times did not differ from those who never shared this perception. Thus, more than one mention did not lead to lower life satisfaction or happiness. This threshold effect of one report of racism being associated with lower levels of well-being was not evident for any of our other indicators of health status. Respondents who reported that whites want to keep blacks down twice over the 13-year period reported fewer health problems than those who never shared that perception. The coefficients are negative but nonsignificant for both those who reported that perception once, as well as for those who reported it three or four times. Similarly, perceptions of racism are not significantly related to health disability, although all of the coefficients are negative, suggesting a nonsignificant trend for persons who perceive racism to report lower levels of disability than those who did not perceive racism. This finding may suggest that this perception may have a "protective effect"—perhaps insulating respondents from larger numbers of health problems. Mean psychological distress is significantly increased by multiple mentions of the perception that whites want to keep blacks down. The coefficients increase from −.04 for one mention to .09 for two mentions to .57 for three or four mentions. Only the latter category is significantly different from those who report no mention of perception over the 13-year period.

A weaker pattern of association is evident for the relationship between the cumulative experience of racial discrimination and health status. There is a marginally significant tendency for respondents who reported experiencing a racial problem two or more times to have lower scores on life satisfaction than those who never reported racial discrimination. The coefficient is also negative for those who experienced racial discrimination once, but it is not significant. Racial discrimination is not significantly related to happiness, although the coefficient is in the direction of lower levels of hap-

TABLE 7.—Regression Analyses Summaries: Predictors of Wave IV (1992) Health Outcomes Controlling for Wave I (1979–80) Health Outcomes

Sociodemographics and Racism Mention Predictors	1992 Health Outcomes									
	Life Satisfaction		Happiness		# of Health Problems		Health Disability		Psych Distress	
	b	SE	b	SE	b	SE	b	SE	b	SE
1. Income to needs ratio	−.029	(.022)	−.006	(.019)	.039	(.031)	.118	(.077)	.013	(.049)
2. Education	.005	(.011)	.002	(.010)	−.049‡	(.016)	−.151‡	(.040)	−.093‡	(.027)
3. Region (1 = South)	.032	(.063)	−.004	(.054)	.045	(.087)	.231	(.213)	.026	(.139)
4. Age	.004	(.002)	.004†	(.002)	.015‡	(.003)	.029‡	(.008)	−.004	(.005)
5. Gender (1 = female)	−.055	(.066)	−.023	(.057)	.229†	(.093)	.441†	(.227)	.327†	(.160)
6. Racism: keep down										
a. Once	−.160†	(.069)	−.124†	(.060)	−.072	(.098)	−.027	(.240)	−.040	(.161)
b. Twice	−.091	(.091)	−.073	(.079)	−.217*	(.127)	−.393	(.312)	.091	(.212)
c. Three–Four	−.075	(.103)	−.111	(.089)	−.125	(.146)	−.221	(.354)	.575‡	(.210)
d. None (excluded)										
7. Racism: past month										
a. Once	−.129	(.082)	.005	(.070)	.027	(.114)	.135	(.279)	−.092	(.177)
b. Two–Four	−.229*	(.119)	−.137	(.103)	−.076	(.167)	−.314	(.411)	−.011	(.214)
c. None (excluded)										
8. Outcome at Wave 1	.281‡	(.041)	.278‡	(.043)	.507‡	(.041)	.452‡	(.037)	.210‡	(.080)
Constant	2.340		1.372		.394		.918		3.479	
Adjusted R-Squared	10.95%‡		8.12%‡		37.01%‡		34.34%‡		17.23%‡	

* $P < .10$.
† $P < .05$.
‡ $P < .01$.

piness among those who experience racial discrimination two or more times. An opposite pattern is evident between the experience of a racial problem and both the number of health problems and health disability. That is, racial discrimination is not significantly related to these outcomes, but persons who report experiencing racial discrimination two or more times tend to have lower levels of health problems and lower levels of health disability than those who never reported racial discrimination. The discrimination measure is also unrelated to psychological distress.

Discussion

The results of this study suggest that perceived racism and reports of maltreatment because of race affect mental and physical health. The observed associations are not strong across the study's health status indicators. Moreover, the pattern for the physical health measures differs from that of the mental health measures. Cumulative perceptions of racism and racial discrimination result in poorer mental health, but over time are weakly, and somewhat surprisingly, associated with better physical health. The differences in the effects of racism may indicate that life satisfaction, happiness, and psychological distress to a lesser extent, are more transitory, situational, social phenomena. That is, the effects of racism on mental health are readily observed on a day-to-day basis; while health problems and health disability are chronic conditions with more complicated intervening and mediating factors that modify the racism and health relationship. For example, certain dispositional traits may be generating the protective effects. It could be that those respondents who perceive whites as wanting to keep blacks down are more vigilant when it comes to their own physical health. Given their attributions about the desires of whites to be superior, they may be more likely to recognize the importance of looking out for themselves. Or, it may be that recognizing the desire of whites to keep blacks down, and accurately documenting an episode where one's race caused them to be treated badly, is a realistic coping response. That is, recognizing racism and racial discrimination for what they are, can be the first step in combatting the physical stresses caused by racism and racial discrimination.

These results must be tempered by several points. First, the data were not collected at equal lag times, which may influence the correlation of responses across Waves. Second, Wave 1 data were collected by all black interviewers during face-to-face interviews, while Waves 2-4 data were collected via telephone. Significant associations (analyses not shown) were found between respondents' perceptions of the race of the phone interviewer, and their perceptions of racism. This race-of-interviewer effect may also interact with the mode of administration. Third, we have not directly examined the "patterns" (as opposed to counts) of experiences of racial problems or perceptions that whites want to keep blacks down. For example, one respondent could have experienced racial problems at Waves 3 and 4, which may be qualitatively different from another respondent who experienced a racial problem at Waves 1 and 2. Fourth, there are several difficulties surrounding our measures of racism. Asking about a past month racial problem does not capture racial problems that may have occurred two or more months ago. Another difficulty with our perceived measure of racism is that the excluded category combined the response "whites want to give blacks a better break" with "whites don't care one way or the other." These two responses are treated as if they were equivalent. We cannot be sure without multiple comparisons that there are not significant differences in mental and physical health associated with being in the "whites don't care" category.

In spite of these shortcomings, these findings raise several important points about the

race-related events that African Americans experience. Racial discrimination is not randomly distributed in the African-American population.[18] Several sociodemographic factors predict variations in exposure to racial discrimination, and may buffer individuals from the more severe consequences of racism. Some recent research emphasizes that racism cannot be studied in isolation. One study[24] found that persons under financial strain, as well as those who perceived their neighborhoods to be unsafe and deficient in basic services, were more likely to be upset by racial discrimination. At a minimum, future research needs to assess the experience of discrimination in settings such as employment, public places (restaurants and stores), and in educational, residential, medical, and judicial contexts. New studies should also explore the extent to which the living conditions of different social groups shape not only the level of racism that they encounter, but also the type, number, and effectiveness of resources that are available to deal with it.

Racism must also be understood in its larger social context. Our analyses document that African-Americans' perceptions of whites' racism are not particularly stable. However, the possible determinants of changes in these perceptions has not been explored. In a similar vein, a decline in reports of experiences and perceptions of racism over the 13-year period is noted, with particularly marked optimism in 1988. It is suggested that this optimism may be reflective of the larger psychological impact on the African-American community of Jesse Jackson's presidential campaign. This raises the intriguing possibility that major national events can dramatically alter the overall racial climate, as well as health status. Future research must give greater attention to identifying the structural determinants of racial attitudes and perceptions, as well as physical and psychological well-being.

The literature documents a range of responses to racial discrimination. Essed[16] describes how black women actively implement a number of strategies to reduce the likelihood of encountering racial discrimination and to minimize its negative consequences. The ubiquitous threat of racial discrimination may lead some African Americans to live in a state of heightened vigilance that takes its toll on health. Three recent studies using ambulatory blood pressure measurements found that the daytime levels of blood pressure were similar for blacks and whites. However, African Americans have a smaller nocturnal decline in blood pressure than whites; they maintain higher levels of blood pressure even when they are asleep.[25-27] This higher level of arousal may reflect an attempt to cope with the presence of racism and other environmental stressors.

Some evidence suggests that two potential responses, denial and the acceptance of racist ideology[28], may adversely affect health. These findings highlight the importance of paying attention to the particular adaptation strategies[16] displayed by oppressed groups as they constantly seek to define their own reality in the face of racism.[29] Adaptation strategies may vary in the extent to which they may have positive or negative effects on an individual's physical and psychological well-being. For example, moving toward the oppressor, i.e., making efforts to obtain the acceptance and approval of the larger society, is one major response to racism.[30] In a racist society, some proportion of an oppressed group may seek acceptance by borrowing and internalizing the dominant society's ideology about their group. It is thus likely that some African Americans will idealize the normative cultural depiction of the superiority of whiteness, and accept the culture's normative devaluing of blackness. This response may be particularly laden with pathogenic consequences for health and can lead to what Akbar[31] has called "the alien self disorder" in which an oppressed group adopts

the attitudes, beliefs, and behavior of the dominant group.[31,18]

In the analyses reported here, information was lacking on the nature of the respondent's response to the experience of racism. Earlier research suggests that the type of response is a key determinant of the physiological impact of discrimination.[12,14] The findings of this paper suggest that serious and sustained research attention is needed to clarify the underlying relationships. More research is needed on the conceptualization and measurement of racism. Researchers should work to identify with greater precision the relevant types, amounts, patterns, and aspects of racism that affect health and elucidate how racism combines with other risk factors to affect the health status of members of subordinate populations over time. Currently, the field lacks a clear understanding of how the mechanisms and processes that generate racial discrimination and perceptions of racism may affect health.

Racism is at the least, an additional "daily hassle," which African Americans are forced to confront. Some African Americans may choose denial and self-degradation, others may embrace vigilance and resistance, and others may accept the status quo. Whatever path is taken, health outcomes are likely to be significantly and differentially affected. The results of this paper and the findings reported by other researchers provide compelling evidence for the need of further research on the nature of, and possible mediating and moderating factors contributing to, the link between racism and health outcomes over the life-course.

Acknowledgements

This research was supported by grant MH 48666 from the National Institute of Mental Health and grant AG 07904 from the National Institute of Aging. We wish to thank the two anonymous reviewers for their helpful comments.

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