THE EFFECTS OF OBAMA'S POLITICAL SUCCESS ON THE SELF-RATED HEALTH OF BLACKS, HISPANICS, AND WHITES

Stress in the social environment can affect individual health. Election of the first Black President of the United States provides an opportunity to assess how a positive change in the macro-political climate impacts the health of Americans. Past research suggests that racerelated political events influence the health of non-dominant racial groups. Yet many questions remain, including the types of events that affect health, the timing and durability of health effects, and whether effects are similar for Blacks and Hispanics in the United States. The present study uses data from the Ohio Family Health Survey, which was in the field from August 6, 2008 until January 24, 2009, to assess whether immediate changes in average self-rated health occurred after key events in the election of President Barack Obama. We find better average health ratings among Blacks and Hispanics immediately following Obama's nomination by the Democratic Party. Similar effects did not occur after the election or inauguration, and Whites showed no effect of any of the events. We discuss the implications of these findings in terms of the theoretical links between macro-level social conditions, race/ethnicity, and health. (Ethn Dis. 2011; 21(3):349-355)

Key Words: Social Environment, Stress, Health, Race/Ethnicity

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INTRODUCTION

While many factors contribute to health inequalities, social scientists recognize that the social environment, including exposure to stress, strongly influences health. The stress paradigm, a theoretical approach to understanding health inequalities, argues that stress affects both mental and physical wellbeing by triggering physiological changes in the body, and that stress is unequally distributed across social groups.^{1–7}

While stress research has most heavily focused on individual-level stressors, some studies have examined macro-stressors, or large-scale, systemsrelated events such as natural disasters, terrorist attacks, and the onset of war. This work reveals that such dramatic events can trigger increases in acute symptoms for heart disease, increased hospital admissions, and heart disease mortality.⁸ There is also growing scientific interest in the physiological effects of well-publicized negative race-related events, particularly on non-dominant racial groups.⁶ Relatedly, some have suggested that dramatic positive racerelated events that signal increased acceptance of racial minorities and increased opportunities for those who have historically experienced discrimination can also have salubrious effects on health, even if those effects are shortlived.9 However, there have been few empirical analyses of the health consequences of positive race-related events, such that we are largely unaware of the conditions under which they are likely to occur.

Election of the country's first minority race head of state, as achieved by Barack Obama, may signal greater inclusion, which could lead to improved well-being.

Because Blacks in the United States have historically been excluded from political office, political success for a Black politician is one avenue for assessing this question. Election of the country's first minority race head of state, as achieved by Barack Obama, may signal greater inclusion, which could lead to improved well-being. In this article, we utilize the natural experiment of Obama's election to examine the relationship between three important political moments in Obama's campaign for the presidency and change in the average subjective health of Blacks, Hispanics, and Whites.

BACKGROUND

Researchers have long recognized racial and ethnic differences in health status. Inequalities in morbidity and mortality are reflected in individuals' ratings of their health: non-Hispanic Whites are less likely than Hispanics to report fair or poor health, while Hispanics are slightly less likely than Blacks to report fair or poor health.¹⁰ Material explanations fail to account fully for racial and ethnic inequality in health. Health disparities are explained, in part, by inequality in exposure to both general stressors and race-related stressors, such as racial discrimination. $^{6-7}$

Racial stress ranges from micro-level to macro-level events.⁶ For several decades, scholars have recognized that macro-level exclusion of a racial group can harm both psychological and physical well-being.¹¹ Generational group traumas, such as historical trauma among American Indians, can create vicarious experiences of discrimination that appear to adversely influence individual health.^{12–13} For instance, a study of the mental health of California residents in 2001 found that, in contrast to prior national and California studies of Mexican immigrants, many immigrant groups including Mexicans reported poorer health than the native born during that year.¹⁴ Because 2001 was a year of considerable anti-immigrant sentiment in California, the researchers suggested that anti-immigrant initiatives and rhetoric, and resulting hostile climate, may have negatively affected immigrants' levels of emotional distress.¹⁴ Another recent study indicates that the threat of widespread discrimination can have adverse physiological consequences. In the wake of September 11, 2001, there was a well-documented increase in discrimination and hostility toward Arab Americans. Lauderdale¹⁵ found that babies born to women with Arabic surnames had an increased rate of low birth weight and pre-term birth in the six month period after September 11 compared to the six months before. A similar pattern was not evident for other racial and ethnic groups.

While the stress paradigm predicts that stress harms health, there is less evidence about whether, and under what conditions, interruptions of negative conditions or the emergence of dramatic positive events can improve health. Looking at political representation as an example, research suggests

that Black political leadership improves Black health. For instance, LaVeist¹⁶⁻¹⁷ compared cities in the United States and reported that greater local Black political representation was associated with improved birth outcomes among Blacks, but not Whites. In a national panel study of Blacks followed from 1979 to 1992, Jackson and colleagues⁹ found that at the 1988 data collection point, Blacks reported the lowest levels of chronic health problems, disability and emotional distress compared to either of the two earlier data collection times and four years after. During 1988, Blacks also reported the lowest level of racial discrimination and the highest level of optimism about race relations. Because 1988 was the year that Jesse Jackson, a Black man, was running the most successful presidential campaign ever by a Black person in US history, the researchers suggested that there may have been a spill-over effect from the larger political climate to health.9 Moller¹⁸ also found what she called "election euphoria" among Blacks after Nelson Mandela's election in South Africa, with improvements in happiness and life satisfaction. She terms the effect "euphoria" because it was no longer present in a survey 18 months after the election. Because they were not designed to do so, previous studies have not had the opportunity to assess the short-term effects of the success of a national campaign at each stage of the election process.

Our article contributes to extant research by testing the immediate health effect of success of a Black political candidate at the various stages of a national election campaign. Electoral victory develops over several months in the United States, through an increasingly long primary campaign for party nomination, followed by approximately two months of campaigning for the presidency, and then over two months of transition before inauguration of the elected president. To the extent that a relationship between political events and health outcomes is due to change in chronic macro-level stress due to exclusion, we expected to observe an immediate change in Blacks' and perhaps Hispanics' self-reported health after significant political events in the 2008 election. We did not expect a change in Whites' well-being because Obama's victory is unlikely to have the same historical and social meaning for Whites.

DATA, VARIABLES, AND METHODS

Data

For our study, we used data from the 2008/2009 Ohio Family Health Survey (OFHS), which was sponsored by several Ohio state agencies as well as two state universities, managed by the Ohio State University's Ohio Colleges of Medicine Government Resource Center and the Health Policy Institute of Ohio, and conducted by Macro International. The purpose of the OFHS was to collect data about insurance coverage and access to health care among adults and children in Ohio.¹⁹ The OFHS was a telephone survey, including both landlines and cell phones, and was fielded from August 6, 2008 until January 24, 2009. The final adult sample was about 46,000 Ohioans, including oversamples of Blacks and Hispanics.

Dependent Variable

Self-rated health indicates the overall physical and mental health status of respondents. Self-rated health status is an excellent assessment of overall health that predicts subsequent illness and death.²⁰ Studies have also shown that individuals adapt their rating of their health when their health status changes.²¹ Self-rated health is usually dichotomized to contrast fair/poor and excellent/very good/good health. However, a recent study has found that, for comparisons over time, dichotomizing into excellent vs the other categories results in more stable and reliable estimates of population health.²² Therefore, in this analysis we contrast excellent and very good/good/fair/poor health.

Independent Variables

There were multiple positive political landmarks during Barack Obama's presidential campaign. The major political events that we focus on are Obama's *nomination* at the Democratic National Convention (August 29, 2008), his victory in the *election* (November 4, 2008), and his *inauguration* (January 21, 2009). These events formed the basis of our sample selection, as described in the "Analytic Plan" section below.

Race and ethnicity were self-reported. The variables were recoded to indicate non-Hispanic White, non-Hispanic Black, and Hispanic of any race. Control variables included income (categories representing the percentage of the federal income to needs ratio), education (high school or more vs less than high school), health insurance coverage (some vs none), age, sex, and marital status. Finally, because there were significant changes in the economy during the study period, including the beginning of a recession,²³ the models control for the daily Dow Jones Industrial Average and monthly county unemployment rate for the county in which the respondent lived.

Analytic Plan

Our analysis employs a quasi-experimental "interrupted time-series" (ITS) design.²⁴ As noted above, the OFHS was conducted between August 6, 2008 and January 24, 2009; hence, we have samples of pre- and post-election event observations. If any of the events had a substantial effect on a group's self-rated health, we should observe differences in pre- and post-event intercepts, slopes, or both.

Our ITS analysis proceeds in several steps. First, we created three sub-

samples of the OFHS data set, by selecting respondents whose date of interview was three weeks prior to or after each of the three key political events. The sole exception to this rule was the post-inauguration analysis, which only extended until January 24, 2009. Ideally, we would have access to a longer time series to reduce error in the pre- and post-event slope estimates; however, we were constrained by the beginning and ending dates of the survey. To test the sensitivity of our findings, we experimented with other durations when the data were available (two weeks and four weeks prior to and following each event). We found no meaningful differences in the results.

Second, we centered the date of interview (*doi*) variable around each event of interest, so that the Δdoi variable shown in equation (1) below keeps track of the number of days before or after each event a respondent was interviewed. Third, we created a dummy variable (*post*) scored 1 if the respondent was interviewed after the event, 0 if prior to. We also created an interaction term (*postdoi*) between the Δdoi and *post* variables.

Finally, we centered all control variables around their racial/ethnic group-specific means. We ran analyses separately for each group, which means that the parameters shown in equation (1) below are interpreted as intercepts and slopes for respondents who have the average value for their racial/ethnic group on all control covariates. In a truly experimental design, the correlation between the treatment and all covariates, measured and unmeasured, would be zero. The assignment of respondents to pre- or post-event interviews was largely a random process; however, the OFHS interviewed different segments of the sample at different times in the roughly six-month period it was in the field. Thus, we account for fluctuations over time in the composition of the sample by including the specified control variables. See Table 1

for group- and date-of-interview-specific sample sizes.

The basic ITS model is shown in equation (1).

$$\ln(\Omega y_i) = \beta_0 + \beta_1(post_i) + \beta_2(\Delta doi_i) + \beta_3(postdoi_i) + e_i$$
(1)

In this model $\ln(\Omega y_i)$ is the log odds of reporting excellent health. β_0 is the intercept for the pre-event time trend and β_1 is the increment or decrement to that intercept. Hence, the sum of β_0 and β_1 yield the intercept for the post-event trend. β_2 is the pre-event slope and β_3 is the increment or decrement to that slope; therefore, the sum of β_2 and β_3 yields the post-event slope. In Table 2, we include control variables to account for the possibility that any observed effects are artifacts of the characteristics of respondents.

Because the hypothesized effects of the political events are directional, the tables show one-tailed tests of the hypotheses for the effect of the events (β_1 and β_3 in equation [1]), but two-tailed tests for the other variables. Also, because the sample sizes are relatively small for some periods (n<400), the tables flag Pvalues at the .10, .05, and .01 levels.

RESULTS

Descriptive Statistics

Overall, about 18% of the sample reports excellent health. These values vary by racial/ethnic category, with 19% of Whites reporting excellent health, compared to 14% of Blacks and 15% of Hispanics. Table 1 shows the means of each variable by the timing of the interview, either pre- or post-event. We provide results of *t*-tests for differences in these pre- and post-event means.

Table 2 shows the results of the analysis testing whether there were changes in self-reported health before and after the nomination of Obama as the candidate for the Democratic Party. For Blacks and Hispanics, the log odds

Table 1. Means by Obama election period: OFHS, 2008-2009

Variables	Nomination (8/28/08)		Election (11/4/08)		Inauguration (1/20/09)	
	Pre-	Post-	Pre-	Post-	Pre-	Post-
Dependent variables						
Self-reported excellent health	0.144	0.157*	0.169	0.147**	0.160	0.154
Independent variables						
Race/ethnicity						
Non-Hispanic White	0.879	0.901***	0.866	0.848**	0.671	0.763***
Non-Hispanic Black	0.099	0.079***	0.083	0.116***	0.197	0.218
Hispanic of all races	0.022	0.020	0.051	0.037***	0.132	0.019***
County-month unemployment rate	7.076	6.865***	7.078	7.340***	9.988	9.334***
Daily Dow Jones Industrial index (in 100s)	115.970	112.383***	88.961	84.642***	85.462	80.901***
< 63	0.082	0.070**	0.082	0.073	0.106	0.070***
63–100	0.092	0.083*	0.082	0.084	0.096	0.083
101–150	0.117	0.117	0.119	0.120	0.117	0.100
151–200	0.101	0.102	0.093	0.094	0.086	0.088
201–250	0.098	0.110*	0.105	0.106	0.095	0.114
251-300	0.091	0.095	0.093	0.094	0.085	0.096
> 300	0.419	0.422	0.426	0.429	0.415	0.449*
Education						
Less than high school	0.095	0.089	0.097	0.096	0.113	0.065***
High school	0.398	0.403	0.415	0.396	0.362	0.335
Greater than high school	0.507	0.508	0.488	0.508*	0.526	0.600***
No health insurance	0.099	0.085**	0.109	0.096*	0.147	0.090***
Age						
18–24	0.033	0.027*	0.035	0.031	0.065	0.031***
25–34	0.101	0.093	0.113	0.088***	0.132	0.103**
35–44	0.159	0.145*	0.158	0.153	0.156	0.154
45–54	0.207	0.194*	0.220	0.212	0.225	0.205
55-64	0.220	0.212	0.205	0.213	0.201	0.220
65+	0.279	0.328***	0.270	0.302***	0.221	0.288***
Female	0.666	0.671	0.652	0.654	0.641	0.682**
At least one child in household	0.293	0.258***	0.297	0.254***	0.292	0.262*
Married or cohabiting	0.530	0.547*	0.586	0.550***	0.454	0.454
N, cases	7,463	7,676	5,481	4,405	2,808	1,296

Notes: Data for total sample are weighted. Proxy respondents deleted from analysis. Columns with asterisks indicate significant difference in means pre- to post-election event. * P<.05; ** P<.01; *** P<.001.

of reporting excellent health are significantly higher after Obama's nomination at the Democratic Party convention (P=.073 and P=.051, respectively).Interestingly, for Blacks, the jump interrupts an overall trend of declining reports of excellent health over the entire period ($\beta_2 = -0.046; P=.024$), a trend that exists when controlling for the declining local and national economy. There is neither an effect of the nomination nor a change in the trend for Whites (Figure 1). These results provide support for the hypothesis that health status improved for Blacks and Hispanics after an important political event for a minority race candidate.

In contrast to the results at nomination, the election and inauguration do not show significant effects for any of the racial/ethnic groups. In the models for all of the racial/ethnic groups, the log odds of reporting excellent selfreported health are statistically equivalent before and after these political events. (Results are available from the authors upon request.)

DISCUSSION

In our research, we set out to assess the immediate health effects of key political moments during Obama's road to the White House for Blacks, Hispanics, and Whites. In doing so, we sought to contribute to research on stress, the social environment, and health. Overall, we found that among Blacks and Hispanics, self-rated health improved after Obama's official nomination as the Democratic Party's candidate. Similar effects were not observed after the election or the inauguration or among Whites.

There are competing explanations for differences among Blacks and Hispanics in the effect of the political events. One possibility is that the effect at the nomination was anomalous. However, that Blacks, Hispanics, and

Parameters	White		Black		Hispanic	
	Coeff.	SE	Coeff.	SE	Coeff.	SE
Interrupted time-series variables						
Constant	-1.833	0.084 ***	-2.615	0.304 ***	-2.838	0.722 ***
Pre-post nomination	-0.047	0.131	0.694	0.722 ***	1.583	0.962 [†]
Time slope	0.006	0.006	-0.046	0.023 **	-0.046	0.052
Pre-post \times time slope	0.000	0.010	0.004	0.034	0.028	0.068
Control variables ^a						
County-month unemployment rate	-0.069	0.026 **	-0.058	0.094	-0.473	0.212 *
Daily Dow Jones Industrial index	0.008	0.039	-0.349	0.145 *	-0.55	0.264
Income:needs ratio						
63–100	-0.112	0.163	0.177	0.357	-0.099	0.663
101–150	-0.099	0.148	0.384	0.357	-0.260	0.699
151–200	0.271	0.143	0.301	0.413	0.083	0.796
201–250	0.245	0.143	0.808	0.367 *	-0.128	0.791
251-300	0.361	0.143 *	1.052	0.392 **	_	_
>300	0.829	0.124 ***	0.942	0.320 **	0.046	0.609
Education						
High school	0.585	0.142 ***	0.843	0.424 *	0.554	0.643
Greater than high school	1.046	0.142 ***	0.750	0.430	0.972	0.646
No health insurance	0.109	0.096	-0.388	0.280	0.901	0.579
Age						
18–24	1.231	0.137 ***	1.661	0.391 ***	0.639	0.733
25–34	0.497	0.099 ***	1.058	0.361 **	0.240	0.653
35–44	0.358	0.091 ***	0.821	0.337 *	-0.423	0.670
45–54	0.099	0.079	0.339	0.332	-0.109	0.647
55-64	-0.066	0.077	0.391	0.326	-0.562	0.649
Female	-0.005	0.052	0.179	0.214	0.013	0.365
At least one child in household	0.237	0.068 ***	0.486	0.221 *	0.340	0.424
Married or cohabiting	0.046	0.056	0.113	0.209	0.90	0.388
Total no. of cases	13,478		1,348		313	
Model df	22		22		22	
Pseudo R ²	0.061		0.082		0.097	

Table 2. Coefficients and robust standard errors from logistic regressions of excellent self-rated health on race and control variables, pre- and post-nomination: OFHS, 2008–2009

Notes: Data are unweighted. Proxy respondents deleted from analysis. * P < .05; ** P < .01; *** P < .001, two-tailed tests; [†] P < .05; ^{††} P < .0

Whites all showed the effect expected for their group suggests that it is not a simply an anomaly. An alternate explanation can be found in measurement of

Overall, we found that among Blacks and Hispanics, selfrated health improved after Obama's official nomination as the Democratic Party's candidate. health. Self-rated health has a psychological component but is likely to primarily capture physical health status.²⁰ Thus, it could be insufficiently sensitive to changes in emotional wellbeing to detect changes at all events. The Democratic Party nomination may have been the event with the strongest psychological effect, and thus, the only event for which a statistical change in health is observed. It is possible that a more sensitive measure of well-being would have identified changes at other political milestones, making the results here a conservative estimate.

Interpreted this way, the results of our research support the notion that positive changes in the social environment can trigger a positive change in well-being. In this case, the results suggest that major political events, here the success of a Black national political leader, can have an immediate effect on health, just as studies have shown that conflictual macro-level racial events can have a rapid negative impact on blacks' health.²⁵ In order to fully understand the mechanisms affecting the relationship, we need research designed to investigate the mechanisms underlying the health effects of positive macro-level events.

Finding that the positive health effect of Obama's success occurred only



Fig 1. Predicted racial/ethnic trends in self-reporting excellent health, pre- and postnomination: OFHS, 2008–2009. Note: Curves derived from coefficients in Table 2

at nomination may provide insight into the timing of health benefits from the perceived change in the larger racial climate. Jackson and colleagues⁸ speculate that Jesse Jackson's relatively successful primary campaign improved Blacks' health. Because our data do not include the primary season, we may not have captured the initial health effects that may have occurred when it became increasingly clear that Obama would win the party's nomination. Thus, our analysis may underestimate the effect of Obama's success because it does not include the primary season.

On the other hand, we may see an effect only at the nomination because the effect of political success on health is temporary.^{9,18} While research on birth outcomes^{15–17} may seem to suggest that political climate has enduring physical health effects, key events during pregnancy may explain these outcomes. Clearly, more research is needed in order to better understand the conditions under which macro-level events affect health and which health outcomes are affected. Future research should assess the timing, pattern and duration of health effects, across multiple indica-

tors of physical and mental health status. Finding data collected before, during, and after major social changes will be a challenge to this research. Researchers must continue to employ creative and flexible methods to assess such changes.

One route that future research on the duration and timing of effects might pursue is possible backlash from Whites. Negative racial stress, both through individual interactions and macroevents, may increase after a shift toward greater racial equality. Theoretical work on racial inequality has noted that racial progress is often followed by backlash from Whites.²⁶ Some research on the effect of Obama's election has found that some Whites, including those who supported Obama, took more discriminatory stances after the election.²⁷⁻²⁸ Future research on the effect of macrolevel inclusion should include an assessment of backlash against progress of the minority group.

Finally, our analysis presents new evidence for the effect of Black political leadership on the health of Hispanics. The results suggest that, as for Blacks, Obama's successful nomination as the Democratic Party candidate is associated with a change in the stress environment for Hispanics. This suggests that Hispanics may identify with a larger non-dominant racial or ethnic status. The result also leads to another potential explanation for the results for both Hispanics and Blacks. Obama's race, his being Black, may have been only one of multiple salient factors in the response to his success. His international parentage and upbringing, a national political shift to the left, and/or the imminent close of the more conservative Bush administration may also have influenced reactions to the nomination and election period. This interpretation does not weaken the larger argument that macro-level social forces can affect health, because these perceptions are part of the larger social environment.

Limitations

The analysis presented here has limitations. First, the data are from one state. Ohio has a good representation of Whites and Blacks, liberal and conservative areas, and cities and rural places. However, the Hispanic population is small compared to the entire United States, more likely to be USborn, more likely to be Puerto Rican, and less likely to be Mexican.²⁹ Therefore, we must exercise care in generalizing the results to all Hispanics. Second, the period of observation was shorter after the inauguration than for the other two events. Third, self-rated health may not be the best measure to detect the change that we set out to observe. Self-rated health, despite evidence that people adjust their self-rated health in response to changes in their objective health,²⁰ is generally considered to be a relatively stable measure. Indicators of psychological distress, happiness, or well-being, for instance, may be more responsive to external changes. Unfortunately, no such measure was available in the dataset. Importantly, the measure we used is less likely to produce a significant result

than the unavailable alternative measures, suggesting that our results are conservative. Despite these limitations, the data provide a unique opportunity to examine the immediate health effects of political events during a historic bid for the presidency.

Our results contribute to understanding the ways in which major political and social events may be salient in the lives of stigmatized racial and ethnic groups and can have consequences for health. Although many questions remain, this study suggests that major positive macro-level events, such as the initial success of a Black political candidate on the national stage, may have an immediate, positive effect on the health of Blacks and Hispanics.

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AUTHOR CONTRIBUTIONS

Design concept of study: Malat, Timberlake

Acquisition of data: Timberlake

- Data analysis and interpretation: Timberlake, Williams, Malat
- Manuscript draft: Malat, Timberlake, Williams

Statistical expertise: Timberlake

Acquisition of funding: Malat, Timberlake

Administrative: Malat, Timberlake, Williams *Supervision:* Malat, Timberlake