

**TITLE:** Race, Stress, Eating Behavior, and Body Weight  
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## **THEORETICAL FOCUS**

Childhood and adult stress exposure have adverse consequences for health throughout the life course. These adverse effects may emerge, in part, because stress contributes to health behaviors that undermine health. We use a stress and life course perspective to elaborate on the impact of stress on trajectories of change in body weight over time. We also consider race differences in stress and body weight linkages. Compared to whites, African Americans are exposed to higher levels of stress throughout life. African Americans also weigh more, on average, than do whites. Stress may foster weight gain if individuals respond to stress with eating behaviors that promote weight gain. Conversely, stress may lead to weight loss if stress serves to suppress appetite or interferes with food consumption. Finally, if African Americans and whites respond to stress in systematically different ways, this may be reflected in population level differences in body weight trajectories.

## **METHODS**

We conduct a blended methods investigation of race, stress, eating behavior, and body weight.

A. Quantitative Analysis. We consider how childhood and adult stress exposure influence trajectories of change in body weight over a fifteen year period (from 1986 to 2001) with growth curve analysis of data from the Americans' Changing Lives Survey, conducted with adults aged 24 and older in the contiguous United States. We include 3,497 African American and white respondents in the analysis.

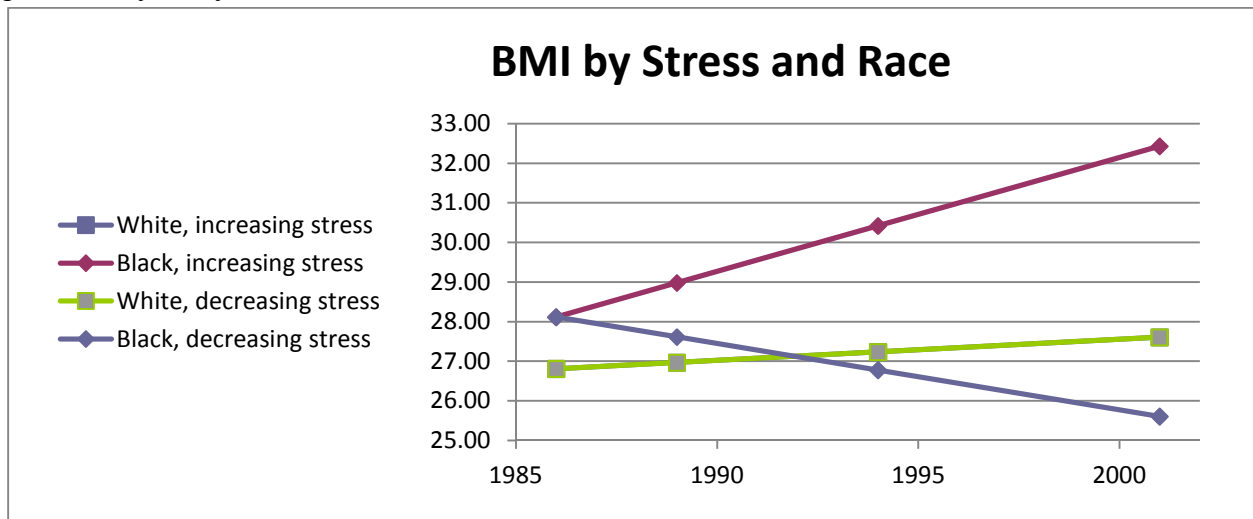
B. Qualitative Analysis. We conducted in-depth interviews with 60 individuals aged 30 and older. This included 30 African American and 30 white respondents with equal numbers of men and women in each group. The main purpose of the qualitative analysis is to explore the meanings, dynamics, and processes that link stress to eating behavior and weight change and to examine thematic variation in these processes by race. Interviews were analyzed and coded using NVivo software and qualitative analysis procedures.

## **EXPECTED FINDINGS:**

### ***Quantitative Results***

Preliminary analyses show that both childhood stress and adult stress are associated with weight gain, at least through middle age. Assessment of interaction terms for stress and race indicates that fluctuations in adult stress burden affect the body mass of African Americans and whites in different ways. We illustrate the pattern of these preliminary results in the figure below which shows predicted trajectories of body mass for African Americans and whites at increasing and decreasing stress levels. The figure suggests that, among African Americans, an increasing rate of adult stress would be associated with accelerated weight gain while a decreasing rate of adult

stress would be associated with weight loss. In contrast to African Americans, whites would exhibit more stability in body mass over time (with a steady but moderate increase over time) regardless of fluctuations in adult stress. Interactions of race with childhood stress and with Time 1 levels of adult stress burden were not significantly associated with body mass in preliminary analyses.



### *Qualitative Results and Blended Methods*

Quantitative results suggest that the effects of adult stress burden on BMI depend on race, with African Americans more likely to increase the amount they eat in response to escalating stress. This is an interesting observation in light of other studies suggesting that, compared to whites, African Americans have lower rates of psychological distress and depression. Social and cultural group differences may lead to different ways of coping with stress and these ways of coping may have implications for long-term health and mortality outcomes. Our qualitative analysis will explore race differences in the meanings and processes through which stress affects eating behavior and weight change. The final paper will use the quantitative data to fully explore race as well as gender variation in stress/BMI trajectories. The qualitative data will be used to fully explore race/gender variation in the processes through which stress affects eating behavior and weight change.

### **SIGNIFICANCE**

Leading scholars call for greater attention to social contexts that influence weight gain and loss over time. Stress appears to be an important feature of social context that influences long-term patterns of weight gain—but in different ways for African Americans and whites.