Racial Disparities in Mental Health Outcomes: Possible Explanations for Unexpected Advantages among African American Adolescents

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INTRODUCTION

Racial disparities in health exact a heavy toll both on the wellbeing of African Americans and on American society as a whole. Eliminating excess morbidity and mortality among Black men, women, and children has been an expressly stated objective of *Healthy People*, the national health promotion and disease prevention goals set forth by the U.S. Department of Health and Human Services, since its inception in 1990. However, African Americans remain at significantly greater risk of disease and death across the lifecourse (Farmer & Ferraro 2005; Haas & Rohlfsen 2009; Williams & Jackson 2005).

While a great deal of research has been conducted examining Black-White inequalities in physical health outcomes, few investigators have broadened their focus to include mental health outcomes. Moreover, the relationship between race and mental health appears to be less straight forward and includes some surprising findings. For example, it is apparent that compared to Whites, African Americans face significantly greater risks of developing and dying from a number of physical conditions including heart disease, many types of cancers, and strokes – three diseases which currently account for a majority of deaths in the United States (Hummer et al. 1999; DeLancy et al. 2008). However, conventional indicators of mental health, such as anxiety and depression, reveal similar patterning among Whites and Blacks (Bratter & Eschbach 2005; Kiecolt, Hughes & Keith 2008; Williams et al., 1997). Moreover, rates of suicide are consistently *lower* among African Americans than their White counterparts (Singh & Siahpush 2001).

This study seeks to better understand the unexpected racial patterning of mental health outcomes among African Americans and Whites in the United States, with a particular focus on adolescents. This period of the lifecourse represents a time when individuals are establishing identities and relationships that are likely to shape future trajectories concerning educational,

occupational, and health-related consequences. Specifically, we are interested in identifying potential buffering mechanisms that may curtail the negative mental health effects of deleterious social and economic conditions among African Americans. We examine mediating factors at both the level of the individual and his/her social network. Thus, this research effort explicitly investigates linkages between individuals and their social context and how these connections either facilitate or inhibit subsequent mental wellbeing. Doing so will directly contribute to existing health disparities research by (1) widening the focus of this knowledge base to include mental as well as physical health outcomes; (2) examining paradoxical outcomes for which disease rates among African Americans are similar or better than those among Whites; and (3) shifting the emphasis away from a purely individualistic approach toward one in which interactions between individuals and their social environments are emphasized.

EXPLAINING THE AFRICAN AMERICAN MENTAL HEALTH ADVANTAGE

Of all the racial & ethnic groups living in the United States, African Americans face particularly dismal prospects when it comes to their health and wellbeing. For example, although life expectancy at birth has been increasing over time for all Americans, Blacks can expect to live, on average, 5 fewer years than Whites (Heron et al. 2009). This stark racial disparity is apparent at the beginning of the lifecourse as well. Despite recent advances in neonatal care, infant mortality remains more than twice as high among African Americans compared to Whites (Frisbie et al. 2009).

While Black men and women experience accelerated mortality schedules and a greater disease burden throughout the lifecourse (Geronimus et al. 2011), their mental wellbeing does not appear to follow similarly disadvantageous trajectories. For example, population-based estimates of anxiety and depression, which are independent of clinician diagnosis, suggest

similar prevalences among African Americans and Whites (Bratter & Eschbach 2005; Kiecolt et al. 2008). Rates of suicide have remained particularly low among young Black men and women, even during recent periods of sustained economic stagnation, limited opportunities for employment especially among blue-collar workers, and the continued elevated risk of incarceration. Currently, African American men between the ages of 25 and 64 face suicide rates that are less than half that of comparably aged White men, 13 per 100,000 and 28 per 100,000, respectively (CDC 2010). Similar trends are noted among adult women as well as teens.

Current theoretical frameworks commonly used to elucidate the potential pathways through which population based health disparities emerge and are sustained over time, fail to explain the Black-White mental health advantage. While a complete discussion of all such theories is beyond the scope of this paper, we will discuss, in an indepth manner, three of the most established frameworks frequently used to explain racial inequalities in health including the stress process model, the fundamental cause hypothesis, and allostatic load.

The stress process model suggests that health outcomes, especially those related to an individual's mental status, are significantly shaped by exposure to both primary and secondary psychosocial stressors (Pearlin 2010; Pearlin, Scheiman & Fazio 2005). An important distinction is made concerning the severity, duration, and chronicity of stressors. Life events are characterized as experiences occurring within a bounded time frame that result in major disruptions to individual functioning. Chronic strains, on the other hand, are typified by their enduring quality and are likely to emerge from inter- or intrapersonal conflicts concerning social roles. A key aspect of the stress process model underscores the importance of considering moderating influences, such as coping styles, social support, and self-concepts, on the relationship between stressors and health outcomes (Pearlin 1999).

Given what is known about the negative impact of both major life events and chronic strains on both physical and psychological functioning, we would expect African Americans to suffer from excessive rates of mental illness. This is due not only to stressful circumstances brought about by exposure to chronic underemployment, poverty, and incarceration, but also the omnipresent specter of racial discrimination and its potentially life-threatening consequences. However, previous studies fail to find evidence that African Americans experience negative mental health outcomes to a greater extent than their White counterparts. This presents a particularly thorny theoretical challenge since increased exposure to racial discrimination has been found to be more predictive of mental as opposed to physical health outcomes for African Americans (Williams, Neighbors & Jackson 2008). Clearly, studies that seek to widen the theoretical focus beyond simple models of stress and coping as well as investigate potential sources of resiliency among Black men and women are sorely needed.

Socioeconomic status (SES) has been found to be one of the most powerful predictors of health and wellbeing. Its effects are apparent across disparate outcomes, populations, and time periods. According to the fundamental cause hypothesis put forth by Link and Phelan (2002), mortality follows the SES gradient in a predictable pattern under dissimilar circumstances because SES embodies access to resources—knowledge, money, power, prestige, and beneficial social connections—that can be used in different places and at different times to confer a significant health advantage. Given that African Americans are disproportionately represented amongst the poorest strata of U.S. society (Jargowsky 1997; Oliver & Shapiro 2006; Wilson 1996) and low levels of SES have been consistently linked to suboptimal mental and physical health outcomes (Aneshensel 2009; House et al. 1994; Lantz et al. 2005), we would expect rates of anxiety, depression, and suicide to be significantly higher, as opposed to lower, for Blacks.

Finally, the concept of allostatic load has proven to be a potentially powerful explanation for explaining the consistent and often stark disparities in physical health among African Americans compared to Whites. Allostasis, as it was originally conceptualized by Sterling and Eyer (1988), builds directly upon the idea of homeostasis and refers to the body's ability to achieve physiological stability through change. Allostatic load, on the other hand, captures the extent to which an individual experiences "wear and tear" on his/her physiological functioning as a result of the chronic activation of the stress response system, most notably the HPA axis, in order to maintain allostasis (McEwen 1998). Extant research has established a link between SES and allostatic load, whereby individuals with lower levels of SES are likely to have significantly higher allostatic load scores. However, our understanding of the ways in which allostatic load differs across racial/ethnic subpopulations remains limited. In one of the few studies specifically designed to examine Black/White disparities in allostatic load scores, Geronimus and colleagues (2006) report that compared to Whites, African Americans had significantly elevated levels of allostatic load and this discrepancy increased with age from 18 to 64 years.

All three theoretical perspectives discussed above suggest that, on average, African Americans should experience worse mental health outcomes than their White counterparts. Furthermore, we would expect this disparity to widen at later ages since the deleterious effects of negative social conditions, such as poverty and racial discrimination, have been shown to exert a cumulative effect across the lifecourse (Geronimus et al. 2007; Walsemann, Geronimus, & Gee 2008). Yet empirical findings fail to provide support for these hypotheses and, in fact, sometimes reveal a mental health advantage among African Americans, depending on the outcome of interest. What race-specific individual circumstances, behavioral practices, or social conditions

could serve as a buffering mechanism for mental but not physical health status among Black Americans?

The somewhat surprising mental health advantage (or lack of disadvantage) among a subpopulation that has historically encountered and currently faces a great deal of discrimination could be the result of African Americans engaging in negative health behaviors that serve to protect their mental health by reducing stress levels while simultaneously eroding their physical health. Smoking cigarettes, drinking excessive amounts of alcohol, and eating fatty or carbohydrate rich foods are health-related coping strategies commonly used to curtail the noxious effects of sustained exposure to stress. Unfortunately, these behaviors are also known to hasten the development of chronic conditions such as obesity, diabetes, and hypertension, contribute to the early onset of physical disabilities, and substantially elevate the risk of death. Using longitudinal data from the Americans' Changing Lives Survey, Jackson et al. (2010) find that for African Americans but not Whites, the association between exposure to stress, as captured by a life events inventory, and subsequent depression is significantly weaker among individuals who engage in unhealthy coping behaviors compared to those who do not. Similar results have been reported by Mezuk and colleagues (2010) using data from the Baltimore Epidemiological Catchment Area Study from 1993 to 2004. Although these findings shed some light on one possible explanation for the mental health "advantage" among African Americans, it still remains unclear why Blacks but not Whites would be able to use strategies such as smoking, drinking, or eating comfort foods to limit the negative mental health consequences of psychosocial stressors.

A second possible coping resource that could be employed differentially by African Americans is reliance on or participation in religious activities. The "Black Church" has long

been a source of strength, resiliency, and collective action for many African Americans. Furthermore, religiosity has been shown to be positively associated with better health outcomes for individuals of various racial/ethnic backgrounds (Bierman 2006; Ellison, Musick, & Henderson 2008). This effect is likely to operate through at least two causal mechanisms. First, religious adherents are less likely to engage in negative health behaviors such as smoking, excessive drinking, and the consumption of certain foods. Second, adherence to a religious or spiritual doctrine is likely to encourage individuals to view frustrating circumstances as being outside their locus of control (George, Ellison, & Larson 2002). This second strategy may prevent those who face particularly persistent discrimination, such as African Americans, from internalizing the deleterious messages or negative stereotypes that accompany a racial insult. Thus, we would expect young African Americans who report higher levels of religious beliefs or attendance to have better mental health outcomes than their less religious counterparts.

Finally, it is imperative to examine potential buffering strategies that operate on the aggregate as opposed to the individual level. One of the most promising avenues of research that could hold important clues to explain at least part of the mental health advantage among African Americans concerns the role of social network and peer effects. In particular, we are interested in examining the extent to which the racial/ethnic composition of an individual's social network can serve to moderate the negative health impacts of excessive psychosocial stress that stems from exposure to conditions typically associated with subordinate social status such as concentrated poverty, racial discrimination, excessive incarceration, residence in substandard neighborhoods, etc.

Social relationships, both within and outside the family, play a key role in the production of physical and mental health across the lifecourse (Berkman et al. 2000; House, Landis &

Umberson 1988; Umberson, Crosnoe & Reczek 2010). Social network structure as well as the provision of social support, especially from key network members, produces main and mediating effects on a wide range of measures of wellbeing (Berkman & Kawachi 2000; Smith & Christakis 2008). In adolescence, which is a lifecourse period characterized by the growing influence of peers and the shrinking influence of family, friendship networks emerge as important influences on adolescent behavior as well as providers of social support and stress, key pathways through which friends are likely influence health outcomes. (Crosnoe 2000; Crosnoe & McNeely 2008). Thus, we would expect that as an individual moves through adolescence, the composition of one's friendship networks would exert an increasing influence on the development of mental health trajectories and may change how these trajectories are likely to differ across race. Previous research has demonstrated a significant link between friendship network characteristics and cigarette smoking (Alexander et al. 2001), depression (Falci & McNeely 2009), and suicide ideation (Bearman & Moody 2004). However, peers may be selecting into homogenous friendship groups rather than being influenced by the behaviors of other network members (Ennett & Bauman 1994; Fisher & Baumann 1988).

While low-income, minority adolescents who attend schools with high concentrations of minority students experience restricted levels of educational achievement (Hanushek et al. 2009) and, alternatively, benefit from increased social interactions with middle-class or White peers (Rumberger & Palardy 2005), little is known about how these types of interactions are likely to impact their health. A more integrated friendship network or school environment may place low status individuals at a greater risk of encountering discrimination primarily due to increased exposure to out-group members. Moreover, minority adolescents may need to adopt dual or multiple identities in order to successfully navigate the social distance between their

families/communities of origin and newfound friendship networks (Colen 2011; Crosnoe 2009; Jones & Shorter-Gooden 2003). This balancing act is likely to contribute to psychological conflict and trigger physiological manifestations of stress when an individual is forced to suppress key aspects of one's identity in order to achieve educational or occupational goals. While upwardly mobile individuals from a wide range of racial/ethnic backgrounds shift their cultural orientation depending on the subset of their social networks with which they are interacting, the need to cross class boundaries to preserve social ties may be more common among African Americans due to the deleterious effects of racial discrimination and concentrated poverty and the need to buffer these negative insults by activating important sources of social support. Thus, we predict that African Americans who report interacting within more integrative friendship networks will have worse mental health outcomes than African Americans who function within networks primarily composed of same-race members.

In sum, we expect three distinct mechanisms to explain at least a substantial proportion of the mental health advantage among African Americans. These include engaging in health behaviors, such as cigarette smoking, drinking alcohol, and physical exercise; reliance on religious beliefs and participation in religious activities; and interacting within social networks that are primarily composed of same-race friends.

DATA AND METHODS

Description of the Data & Measures

The National Longitudinal Study of Adolescent Health (AddHealth) began as a nationally representative, longitudinal study of adolescents in grades 7 through 12 who were enrolled in school during the 1994-1995 academic year. Follow-up interviews (waves II through IV) were

carried out in 1996, 2001-2002, and 2007-2008, respectively. During waves I and II, additional information was collected from parents as well as school administrators. Specific racial/ethnic groups, including middle-class Blacks, Chinese, Cuban, and Puerto Ricans, were oversampled to enable comparative analyses. This research effort was initially designed to examine social forces, particularly those emerging from friendship networks and the school environment, that shaped risk-taking behaviors, sexual activity, and health outcomes among U.S. teens. Due to the longitudinal nature of the data, the focus has shifted to examining how conditions during adolescence influence decisions, behaviors, and achievement during emerging and early adulthood. Thus, the structure of AddHealth provides a wealth of information concerning how individuals interact with their social environments and how these patterns change across different periods of the lifecourse.

For the purposes of this study, mental health is captured using a measure of suicidal ideation. Respondents are asked if they have seriously considered suicide during the previous 12 months. Question wording for this variable does not substantially change across data collection efforts. To estimate physical health, we employ a common measure of self-rated health. Respondents are asked to rate their overall health on a scale of 1 to 5, where 1 indicates the worst health and 5 indicates the best health. We are only presenting results for suicidal ideation at PAA.

The primary independent variable of interest, respondent's race, is based on self-report and is coded as non-Hispanic White and non-Hispanic Black. Add Health asks respondents to report Hispanic ethnicity and race separately; thus, we are able to separate out African Americans who are of Hispanic descent from those who are not. This is essential given what is

known about the Hispanic health paradox – namely that the health of Latinos tends to be better than we would expect given their lower than average levels of SES.

In the analyses that follow, we consider three possible buffering mechanisms – negative health behaviors, religiosity, and racial composition of social networks. Negative health behaviors are captured using three indicators: whether or not the respondent currently smokes cigarettes on a regular basis; alcohol consumption which is coded on a scale from 1 to 4, where 1 indicates abstinence from drinking and 4 indicates frequent binge and/or heavy drinking; and propensity to engage in strenuous physical activity. The last variable measures exercise performed during the previous week and ranges from never (0) to five times a week or more (3).

Religiosity is based on two measures. The first asks respondents "how important their religion is" on a scale from 1 to 4 where 1 indicates not important and 4 indicates more important than anything. The second inquires about the number of religious services attended in the last year and is coded according to the following schema: never (1), less than once per month (2), greater than once a month and less than once a week (3), and once a week or more (4).

Finally, we determine the extent to which the respondent's friendship network is comprised of either same or different race members using two aggregate indicators that capture heterogeneity and segregation. These are described in detail below. First, the heterogeneity index indicates the probability that two randomly chosen network members are of a different race. It is calculated using the following formula:

$$\left[1 - \sum_{k} \left(\frac{n_k}{N}\right)^2\right] * 100$$

where n = the number of students in the network with race trait k (ie. White, Black, Hispanic, Asian, or other) and N = the number of people in the network with any valid race trait. Scores

range from 0% to 80% where higher percentages indicate more racial diversity. Due to the skewed nature of the data and the preponderance of scores of 0, we created a dichotomous indicator that is coded as 0 if respondents had completely homogeneous networks and 1 if their networks contained any other-race members.

Second, Freeman's segregation index reflects the diversity of all friendship networks within a given school and is derived according to the following formula:

$$[E(XR) - XR]/E(XR)]$$

where E(XR) is the expected number of cross-race contacts and XR is the observed frequency of cross-race contacts. This indicator has a theoretical minimum of -1 (exclusive out-group preference) and maximum of 1 (exclusive in-group preference). A value of 0 indicates no racial preference within the network. We then took the natural log of the segregation score after adding a constant of 1 to reduce skew in the original distribution.

We also integrate a number of demographic control measures into multivariate analyses including age, sex, marital status, number of children, whether or not the respondent is enrolled in school, household income, and welfare receipt. Due to changes in question wording across all four waves, household income refers to parental income in waves 1 and 2 but respondent (and spousal, if applicable) income in waves 3 and 4.

Analytic Strategy

Consistent with the theoretical underpinnings and specific aims of this study, we produce descriptive statistics to further examine independent and mediating variables of interest as well as estimate causal models to test the research hypotheses outlined above. We rely on multilevel logistic regression techniques with random effects to estimate the association between being

Black and the odds of suicidal ideation before and after accounting for three potential mediating pathways – health behaviors, religiosity, and social network composition. Multilevel modeling allows us to produce growth curves which capture the extent to which the likelihood of experiencing suicidal thoughts changes over time. Level 1 contains information concerning time-variant individual characteristics, while level 2 accounts for time-invariant attribute s unique to each respondent. Random effects (ie. coefficients) allow the longitudinal impact of race on suicidality to fluctuate from one individual to the next.

Due to the fact that we seek to understand how potential mediators impact the association between race and suicidal ideation, we present results from three distinct regression analyses. The first demonstrates the bivariate relationship between being Black and the odds of having suicidal thoughts. The second model accounts for potential confounders such as age, sex, marital status, number of children, and SES. The third and final model incorporates additional variables to capture the three mediating mechanisms central to our hypotheses.

Both descriptive and multivariate analyses are restricted to nonHispanic White and nonHispanic Black respondents who have complete data from at least waves 1, 3, and 4. We do not exclude individuals from our analyses if they are missing information from wave 2 since the second round of data collection occurred only 12 months after the first. This provides us with 20,393 person-years of data spanning a 14-year time period during adolescence and early adulthood.

RESULTS

Descriptive statistics for all four waves of data combined and stratified by race are presented in Table 1. Sample size refers to person-years of data. Racial disparities in suicidal ideation for this

sample of young adults mirror national trends. 7.31% of African Americans report seriously contemplating suicide compared to 9.53% of Whites. This stands in contrast to descriptive findings for self-rated health – a commonly used indicator or physical wellbeing. More than 43% of White respondents but only 37% of Black respondents characterize their overall health as very good. Similarly, a greater proportion of African Americans (8%) than Whites (5%) report fair or poor health.

Racial disparities are also evident for key mediators of interest. Overall, Black respondents tend to engage in less risky health behaviors, hold religion in higher regard, and maintain different types of friendship networks than Whites. Almost 30% of Whites but less than 15% of Blacks are current smokers. Alcohol consumption is less frequent among African Americans, with more than 52% of respondents abstaining altogether from drinking for at least a year. Furthermore, a substantially greater proportion of White than Black respondents characterize themselves as heavy drinkers (25% vs. 9%, respectively). Almost 43% of African Americans but only 25% of Whites say that religion "is more important than anything", while 3% of Blacks and 11% of Whites characterize religion as being "not important". Not surprisingly, African Americans in this sample also attend religious services with a greater frequency than their White counterparts. 41% of Blacks but only 28% of Whites go to church at least once a week.

Table 1 provides information regarding the racial composition of respondents' friendship networks that were calculated using in-school friendship nominations in Wave I. On average, African Americans tend to have more heterogeneous networks than Whites. 60% of Blacks but only 53% of Whites have heterogeneous friendship networks with at least one other-race friend. Although African Americans are more likely than their White peers to maintain social ties with

other-race friends, their social networks will, more often than not, still be highly segregated. This is primarily a function of attending schools with high concentrations of same-race students since Freeman's segregation index captures the diversity of all friendship networks within a given school. A network segregation score of 0.29 for Black respondents compared to 0.20 for White respondents suggests a higher than expected in-group racial preference among the former. Although Blacks themselves tend to have more diverse friendship networks, the schools they attend exhibit significantly higher levels of network segregation by race.

Regression results are presented in Table 2. Model 1 displays the bivariate association between being African American and the odds of suicidal ideation. Model 2 accounts for potential confounders including age, sex, marital status, number of children, whether or not the respondent is currently enrolled in school, household income, and welfare receipt. Finally, Model 3 contains additional variables that capture the three mediating pathways of interest: health behaviors, religiosity, and social network composition.

According to the first model, African Americans are 21% less likely than Whites to seriously consider taking their own lives. When additional confounders are added, the association between race and suicidal ideation becomes more evident, with Black respondents 34% less likely than their White counterparts to seriously consider taking their own lives. Model 2 also reveals that individuals who are younger, female, poor (as measured by welfare receipt), and have several children face greater odds of being suicidal. Similarly, those who are married or cohabiting, as opposed to being single, experience lower odds of being suicidal. Given what is known about the distribution of suicidality in the general population, it may seem surprising that women in our sample were more likely to seriously contemplate taking their own lives.

However, this reflects the general trend that more women consider suicide but more men actually successfully commit the act.

Model 3 clearly demonstrates how our results change once mediating variables are included in the analyses. By accounting for differential health behaviors, religiosity, and network characteristics among White and Blacks, the race coefficient increases from 0.66 to 0.98 and is now statistically insignificant. Thus, African Americans no longer appear to have a mental health advantage over their White peers.

Based on the results in Table 2, it appears that all three mediating pathways help to explain why Black as opposed to White adolescents are less likely to experience suicidal thoughts. First, health behaviors seem to be a key component but two of the three relationships are in unexpected directions. For individuals in this sample, smoking cigarettes and drinking alcohol are associated with a 100% and 27%, respectively, increase in the odds of being suicidal. We had originally hypothesized that African Americans would rely on negative health behaviors, of which smoking and drinking are two of the most common, to reduce their risk of negative mental health outcomes.

Second, beliefs but not behaviors concerning religion appear to influence the likelihood of suicidal ideation. Respondents who thought religion was important experienced a 9% reduction in the odds of having suicidal thoughts. Compared to those who rarely attended religious services, those who frequently did faced slightly *higher* chances of contemplating taking their own life; however, this result was only marginally significant. Considering that participation in religious events is likely to firmly establish strong social ties and reinforce beliefs concerning the sanctity of human life, it is somewhat surprising that attending worship

services on a regular basis would be associated with even a slight increase risk of suicidal ideation.

Finally, the racial composition of an individual's friendship network appears to significantly influence his/her propensity to consider suicide as a course of action. The two network characteristics captured in this study, heterogeneity and segregation, exert opposite effects on suicidal ideation. Respondents who maintain friendship networks that are racially heterogeneous, as opposed to homogeneous, face a 21% increase in the odds of having suicidal thoughts. This suggests that as social ties are formed across racial divisions, individuals embedded within those networks are more likely to contemplate taking their own lives. On the other hand, for every 1 percentage point increase in network segregation, respondents can expect to experience more than a 44% reduction in the odds of suicidal ideation. Thus, racial divisions, at least those functioning at the network level, appear to provide a protective buffer against negative mental health consequences such as suicidality.

DISCUSSION

Our findings indicate that the three mediating pathways selected for examination – health behaviors, religiosity, and social network composition – are important conduits through which African Americans are likely to limit the potentially harmful effects of disadvantage and discrimination. While two of the three mediating mechanisms operated in the hypothesized direction (ie. religiosity and network composition), the influence of health behaviors, especially cigarette smoking and alcohol consumption, on suicidal ideation was in the opposite direction. This result may be reflective of an endogenous relationship between stress, negative health behaviors, and the propensity to have suicidal thoughts. For example, it may be that individuals

who are under extreme amounts of stress are also those who are likely to report excessive amounts of smoking and drinking as well as seriously consider taking their own life. The fact that we use longitudinal data to examine changes in suicidal ideation within individuals over time helps to rule out this explanation; however, we did not directly control for exposure to psychosocial stress in our modeling strategy.

Another key finding concerns the role of religiosity in protecting Black respondents from negative mental health consequences. Although the importance of religion for African Americans has long been recognized (Taylor, Chatters, & Levin 2004), the ability of racial minorities to harness the benefits of religious adherence or involvement specifically to improve their wellbeing remains an open question. Our results suggest it is the salience of religion in one's life, not the actual participation in organized worship services, that serves to shield African Americans from the potentially harmful effects of occupying a low-status position in American society. The importance of belief over behavior indicates that psychological, as opposed to physical, mechanisms are more likely to explain this why religiosity proves to be an important mediator. Thus, we would expect individuals who hold strong religious beliefs to display an external locus of control, especially in the face of daunting obstacles or sustained challenges (Neff & Shoppe 1993; Shaw & Krause 2001); however, we were not able to directly test this hypothesis. This finding is likely to provide a glimmer of hope to an overburdened subpopulation that already faces competing demands for their limited time and energy due to social conditions brought about by exposure to concentrated poverty; suboptimal neighborhood environments; low-wage employment or unemployment; excessive amounts of disability and mortality; and racial discrimination.

One of the most intriguing results of this study concerns the racial composition of the social networks in which respondents are embedded and the ways in which these characteristics influence the likelihood that African Americans experience extreme mental distress. Network heterogeneity significantly increases the likelihood that respondents will have suicidal thoughts, while network segregation significantly decreases an individual's propensity to consider taking his/her own life. Thus, it appears that exposure to different-race friends may acerbate the negative health consequences that stem from multiple stratification processes African Americans are likely to encounter on a daily basis. This may result from the inability of other-race network members to adequately understand the psychosocial realities that Black young adults face today, especially in a milieu that is often characterized as "post-racial", or it could stem from increased exposure to racial discrimination which may prove particularly harmful to an individual's mental health status if it originates from someone considered a friend.

Even after controlling for network heterogeneity, our measure of network segregation still exerted a significant influence on suicidal ideation and was a key indicator in explaining the Black mental health advantage that is captured by our measure of suicidal ideation. This finding echoes recent research examining the association between neighborhood racial composition and health outcomes. Earlier studies, which solely relied on aggregate measures, found a consistent relationship between racial residential segregation and physical wellbeing whereby more segregated locales revealed greater disparities between Blacks and Whites. Recent research, which was able to utilize multilevel data, reveals a more nuanced understanding of how neighborhood racial composition is likely to impact the health of African Americans. There is mounting evidence to suggest that residential segregation, in and of itself, is not harmful to population health and may actually exert a protective effect. Instead, it appears hypersegregation,

racial isolation, and the lack of socioeconomic resources may be what is driving this seemingly straightforward relationship (Osypuk & Acevedo-Garcia 2008; Subramanian et al. 2005).

Using nationally representative data from the National Longitudinal Study of Adolescent Health, we find empirical support for all three of the mediating mechanisms examined to explain the mental health advantage commonly seen among African Americans. Although no one single study can provide convincing evidence to identify causal pathways, we believe our efforts provide a useful first step in helping to explain this surprising population health trend. Our results suggest that health practitioners and policy makers should carefully consider potential unforeseen consequences of efforts to improve the wellbeing of African Americans, especially those that result in changing the composition of social networks and disrupting their subsequent functioning. These include common occurrences such as school redistricting and the establishment of magnet or charter schools as well as large-scale experimental projects such as Moving to Opportunity (MTO). As our results illustrate, efforts to reduce segregation may actually come at a cost to the very individuals we seek to help. We are not suggesting, however, that these endeavors should be completely abandoned. Rather, their implementation should be carefully thought through and contingencies planned to simultaneously increase access to socioeconomic resources as well as reduce exposure to racial discrimination. This is a tall order and not one to be taken lightly, but to ignore these warnings may be inadvertently placing lives at risk.

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Table 1. Descriptive Statistics for Variables of Interest for NonHispanic White and Black Young Adults in the U.S., by Race

	White (N=15,367)	Black (N=5,026)	Test for Difference
Suicidal Ideation	9.53	7.31	**
Current Smoker	29.74	14.97	***
Alcohol Consumption			***
Abstinence	34.73	52.70	
Light	21.19	21.52	
Moderate	19.17	16.55	
Heavy	24.91	9.23	
Exercise (Times Per Week)			***
Not At All	23.71	32.28	
1 or 2 Times	23.62	23.93	
3 or 4 Times	21.08	18.37	
5+ Times	31.60	25.42	
Importance of Religion			***
Not Important	11.38	2.77	
Somewhat Important	22.96	9.11	
Very Important	40.38	45.18	
More Important Than Anything	25.28	42.93	
Worship Service Attendance			***
Never	22.28	9.41	
LT Once a Month	29.42	23.20	
GE Once a Month & LT Once Week	20.00	26.46	
Once a Week or More	28.31	40.94	
Network Racial Heterogeneity			***
No	46.62	39.87	
Yes	53.38	60.13	
Network Racial Segregation	0.20	0.29	***
	(0.19)	(0.14)	

Table 2. Results from Multilevel Logistic Regression Models Predicting Suicidal Ideation Among Young Adults in the U.S.

	Model 1		Model 2		Model 3	
	OR	95% CI	OR	95% CI	OR	95% CI
Black	0.79	(0.67, 0.93)	0.66	(0.56, 0.79)	0.98	(0.81, 1.19)
Age			0.96	(0.94, 0.97)	0.93	(0.91, 0.94)
Female			1.60	(1.38, 1.86)	1.73	(1.49, 2.02)
Cohabiting			0.51	(0.39, 0.67)	0.51	(0.39, 0.67)
Currently Married			0.40	(0.31, 0.52)	0.51	(0.40, 0.66)
Previously Married			0.90	(0.61, 1.36)	1.00	(0.66, 1.52)
Number Children			1.23	(1.13, 1.34)	1.21	(1.11, 1.32)
Enrolled in School			0.98	(0.81, 1.18)	1.08	(0.90, 1.30)
Household Income			1.02	(0.99, 1.05)	1.03	(1.01, 1.06)
Welfare Receipt			1.34	(1.10, 1.64)	1.39	(1.13, 1.69)
Current Smoker					2.00	(1.72, 2.33)
Drink Alcohol					1.27	(1.20, 1.35)
Exercise					1.07	(1.01, 1.13)
Religion Important					0.91	(0.83, 0.99)
Religious Attendance					1.08	(1.01, 1.16)
Network Heterogeneity					1.21	(1.05, 1.40)
Network Segregation					0.46	(0.28, 0.78)
N (Person-Years)	20,393		20,393		20,393	