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Differences in the self-reported racism experiences of US-born and foreign-born Black pregnant women

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Abstract

Differential exposure to minority status stressors may help explain differences in United States (US)-born and foreign-born Black women's birth outcomes. We explored self-reports of racism recorded in a survey of 185 US-born and 114 foreign-born Black pregnant women enrolled in Project Viva, a prospective cohort study of pregnant women in Boston, Massachusetts, USA. Self-reported prevalence of personal racism and group racism was significantly higher among US-born than foreign-born Black pregnant women, with US-born women having 4.1 and 7.8 times the odds, respectively, of childhood exposure. In multivariate analyses, US-born women's personal and group racism exposure also was more pervasive across the eight life domains we queried. Examined by immigrant subgroups, US-born women were more similar in their self-reports of racism to foreign-born women who moved to the US before age 18 than to women who immigrated after age 18. Moreover, US-born women more closely resembled foreign-born women from the Caribbean than those from Africa. Differential exposure to self-reported racism over the life course may be a critically important factor that distinguishes US-born Black women from their foreign-born counterparts.

Keywords

Racism; Women; Stress; Pregnancy; Health disparities; Blacks; Immigrants; Nativity; United States

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Introduction

One of the primary aims of *Healthy People 2010*, the current public health agenda in the United States, is the elimination of persistent racial/ethnic disparities in infant mortality and its leading causes, preterm delivery (PTD) (<37 weeks gestation) and low birthweight (LBW) (<2500 grams or 5lbs, 8oz) (US Department of Health and Human Services, 2000). African American infants are one and a half to two times as likely as Nonhispanic Whites, Hispanics, Asian/Pacific Islanders, and American Indians to be born too small or too early, and to die before reaching their first birthday (Hamilton, Martin, & Ventura, 2007; Mathews, Menacker, & Mac-Dorman, 2004). The African American reproductive disadvantage is a long-standing public health problem in the United States that sociodemographic, medical, and behavioral risk factors do not fully explain (see review by Giscombe & Lobel, 2005).

The literature's heavy focus on differences between major racial/ethnic groups may hamper our understanding of the full range of etiological factors that contribute to racial disparities in health. By assuming the relative homogeneity of the racial/ethnic groups under study, variations that exist within groups may be overlooked (Arthur & Katkin, 2006; Hogan, Njoroge, Durant, & Ferre, 2001). Maternal immigrant status is one source of within-group variability that could be helpful in elucidating distinctive patterns of risk for PTD, LBW, and infant mortality. The foreign-born typically have better perinatal outcomes and infant survival rates than their US-born counterparts (Hummer et al,1999; Singh & Yu,1996), although a few exceptions have been noted (e.g., Fuentes-Afflick, Hessol, & Perez-Stable, 1998). While studied most frequently in Latinas, particularly those of Mexican descent (e.g., Crump, Lipsky, & Mueller, 1999; English, Kharazzi, & Guendelman, 1997; Fuentes-Afflick, Hessol, & Perez-Stable, 1999), a fair number of studies have documented immigrant status differentials in adverse birth outcomes among Blacks (e.g., Cabral, Fried, Levenson, Amaro, & Zuckerman, 1990; Collins, Wu, & David, 2002). For instance, examinations of Illinois birth records show the incidence of LBW among Caribbean-born (Pallotto, Collins, & David, 2000) and African-born (David & Collins, 1997) Black women more closely resembles that of the US-born White women than that of the US-born Black women in that state.

Immigrants' favorable birth outcomes could result partly from a "healthy immigrant effect", since foreign-born mothers tend to exhibit fewer sociodemographic, medical and behavioral risk factors than US-born mothers (Hummer et al., 1999). Culturally-based protections, such as social support, strong religious beliefs, and positive pregnancy attitudes, may help to explain the paradox of favorable outcomes even among immigrant women of low socioeconomic status (e.g., Landale, Oropesa, Llanes & Gorman, 1999; Magana & Clark, 1995; Sherraden & Barrera, 1996). The reproductive advantage of the foreign-born usually persists after controlling for risk status (Alexander, Mor, Kogan, Leland & Kieffer, 1996; Crump et al., 1999), but declines with acculturation and increasing time in the US (Cobas, Balcazar, Benin, Keith, & Chong, 1996; Landale et al., 1999). Cabral and colleagues (1990) found that immigrant Black women's reproductive advantage over their US-born counterparts was independent of socioeconomic status (SES), marital status, prenatal care, and health behavior. Similar results have been reported in other studies (e.g., David &

Collins, 1997), but not all (e.g., Wasse, Holt, & Daling, 1994). The reproductive advantage of foreign-born Black women, however, does not appear to carry over to subsequent generations of US-born daughters, a pattern attributed to deleterious aspects of American society (Collins et al., 2002).

David and Collins (1991) posited over 15 years ago that racism, a long-standing feature of the American social landscape, plays a central role in adverse birth outcomes among Blacks. Reviews of the literature on self-reported racism and health indicate that the overwhelming majority of the empirical research has been conducted in the US, with a handful of studies examining racial discrimination, often among immigrant populations, in Europe, Canada, Australia and the Caribbean (e.g., Paradies, 2006; Williams & Mohammed, 2008). Although the evidence for an association between the two is inconsistent across racism measures and health outcomes, recent studies based in the US (e.g., Dominguez, Dunkel Schetter, Glynn, Hobel, & Sandman, 2008; Mustillo, Krieger, Gunderson, Sidney, McCreath, & Kiefe, 2004) and New Zealand (e.g., Harris, Tobias, Jeffreys, Waldegrave, Karlsen, & Nazroo, 2006) demonstrate that self-reported racial discrimination attenuates racial/ethnic differences in health. The US Centers for Disease Control has challenged researchers to develop new paradigms focused on social determinants of racial disparities in adverse pregnancy outcomes (Rowley & Tosteson, 1993). Drawing from Geronimus' work on weathering (Geronimus, 1996), Pallotto et al. (2000) argue that nativity differentials even among Black women at low risk for poor pregnancy outcomes suggest that lifelong minority status may prematurely erode the health of African American women.

Racism may operate along a stress pathway to negatively influence the reproductive outcomes of African American women long before they ever conceive (Hogue & Bremner, 2005; Rich-Edwards & Grizzard, 2005). Chronic exposure to racial prejudice and discrimination could trigger adaptational responses that over time contribute to physiological wear and tear, thereby increasing health risk (Mays, Cochran, & Barnes, 2007; Myers, Lewis, & Parker-Dominguez, 2003). Additional relevant pathways by which racial discrimination could harm health include increasing risk of socioeconomic deprivation, exposure to toxic substances and hazardous working and living conditions, being targeted for marketing of unhealthy substances (e.g., alcohol, tobacco, junk food), and limited access to and quality of medical care (Krieger, 1999). African American women's self-reported perceptions of racism have been associated with their levels of psychosocial stress during pregnancy, and some, but not all, studies have reported positive associations of maternal experiences of racism with PTD and LBW (see review by Giscombe & Lobel, 2005).

To our knowledge, no studies have examined whether foreign-born and US-born Black pregnant women vary in their perceptions of racism, an underlying assumption of the "lifelong minority status" hypothesis. In this investigation, we explored differences in the self-reported racism experiences of US-born and foreign-born Black pregnant women, as well as general behavioral responses to unfair treatment, controlling for relevant sociodemographic factors. We hypothesized that US-born Black women would report greater exposure to racism than foreign-born Black women, and that foreign-born women who immigrated to the US as children would report a higher level of racism exposure than those who immigrated as adults. We also expected that foreign-born women's reports of

racism would vary depending on their region of origin, with those immigrating from more racially diverse regions reporting greater exposure than those originating from predominantly Black regions.

In our sample of Black pregnant women, the incidences of LBW (8.0%, $n = 24$) and PTD (11.4%, $n = 34$) were closer to the national rates for Nonhispanic Whites (7.3% and 11.7%, respectively) than those for Nonhispanic Blacks (14.0% and 18.7%, respectively) (see Hamilton et al., 2007). The unexpectedly low number of clinical outcomes in our small sample limited the statistical power available to reliably test predictive models of racism and LBW/PTD and to examine interactions by immigrant status. Therefore, we explored immigrant status differentials in self-reported racism to document patterns of exposure as an initial line of inquiry into the "lifelong minority status" hypothesis.

Method

Design

Project Viva is an ongoing prospective cohort investigation of multiple determinants of pregnancy outcomes and subsequent child development (for a detailed description of study methods see Gillman, Rich-Edwards, Rifas-Shiman, Lieberman, Kleinman, & Lipshultz, 2004; Rich-Edwards, Krieger, Majzoub, Zierler, Lieberman, & Gillman, 2001). Sociodemographic, behavioral, biological, and psychosocial data are collected during the first and second trimesters of pregnancy and up to seven years post-partum (post-delivery, 6 months post-partum, and annually thereafter; study is currently in post-partum year 7) via interviews and mailed questionnaires. Patients receiving prenatal care through a large managed care group in Boston were approached about the study at their first prenatal visit. To be eligible, women had to be <22 weeks into a singleton pregnancy, fluent in English, and planning to remain in the area until the birth. Of the 2670 pregnant women who entered Project Viva during the enrollment period (i.e., April 22, 1999 to July 31, 2002), 2128 women (79.7%) remained in the study through delivery, with 66% self-identifying as White or Caucasian, 17% as Black or African American, 6% as Asian or Pacific Islander, 7% as Hispanic or Latina, and 4% as Multi-racial or Other. For the present investigation, we examined data on the 185 US-born and 114 foreign-born Black pregnant women who completed the racism items on the first trimester questionnaire. Of the 348 women self-identifying as "Black or African American", 6 (2%) were excluded from this analysis because they were missing data on country of birth and 43 (12%) were excluded because they did not complete the first trimester questionnaire. Excluded women were significantly younger and less educated than those retained in the sample (all ps < 0.05), but they did not differ in marital status ($p > 0.10$). Group differences in income, employment status, and lack of resources in childhood, adulthood, or during the pregnancy could not be reliably assessed given that 44 of 49 excluded women at minimum were missing data on these variables.

Measures

We collected a variety of sociodemographic information, including maternal age, marital status, education, household income, employment status, and perceived lack of resources for basic necessities (e.g., food, rent, medical care) during childhood, adulthood, and/or the

current pregnancy. Immigrant status was based on country of birth, which was grouped by geographic region to facilitate data analysis. Age at immigration to the US was used to dichotomize the foreign-born into those who immigrated as children (<18 years) and those who immigrated as adults (>18 years).

We assessed participants' self-reported racism experiences using an adapted and expanded version of a recently validated measure (see Krieger, Smith, Naishadham, Hartman, & Barbeau, 2005). These items are the predominant measure of self-reported experiences of racial discrimination in the pregnancy literature (see review by Giscombe & Lobel, 2005). First, participants were asked whether they typically respond to unfair treatment by "talking to others" or "keeping it to myself", and whether they usually "accept it as a fact of life" or "try to do something about it". They were classified as active (talk to others/do something), passive (keep to myself/accept it), or combination responders based on their answers. Next, their self-reported racism experiences were assessed. In two separate sets of questions, participants were asked whether they personally, and whether their ethnic group in general, had ever experienced "unfair or bad treatment because of their race/ethnicity" in eight different situational domains: at school, getting hired or getting a job, at work, getting housing, getting medical care, getting service in a store or restaurant, on the street or in a public setting, and from the police or in the courts ("No" = 0, "Yes" = 1). "Yes" responses were summed within each set of items to produce a personal exposure score and a group exposure score (range 0–8 for each). We also created categorical summary scores by grouping the continuous scores into 0, 1–2, or 3 or more self-reported domains of racism exposure to account for potential nonlinear associations (Krieger et al., 2005). Personal and group scores were examined separately, as previous studies indicate that people tend to report more unfair treatment directed against their group as a whole than against themselves personally (Taylor, Wright, Moghaddam, & Lalonde, 1990; Krieger, 1999). As a follow-up to each endorsed item in the personal racism section, participants were asked to indicate whether their exposure to racism in that particular life domain occurred in childhood, in adulthood, and/or during the pregnancy. If participants endorsed any of the items in the group racism section, they then were asked whether they were "aware of this treatment" before the age of 18 ("No" = 0, "Yes" = 1).

Analytical procedure

We first inspected the distributions for self-reported racism and found only slight negative skewness for personal racism scores (−0.47) and slight positive skewness for group racism scores (0.69), so we assumed the primary dependent variable was normally distributed. Immigrant status differentials in sociodemographic factors, self-reported racism, and responses to unfair treatment were examined using chi-square tests and logistic regression for categorical data and ANOVA or Proc GLM regression procedures in SAS version 9.1 (SAS Institute, Cary, NC) for continuous data. We tested each of the sociodemographic variables as a potential confounder of the association between immigrant status and self-reported racism scores. Those factors that altered the unstandardized coefficient for immigrant status by at least 10% when entered in a predictive model of self-reported racism were controlled in multivariate analyses. Models were tested for both the continuous and the

categorical summary scores of self-reported racism. As the results were similar, we report findings for the continuous summary score only.

Results

Sample characteristics

Table 1 provides a sociodemographic profile of the sample by immigrant status. Compared to the US-born Black women, the foreign-born women in this study were older, more likely to be married, and less likely to report a lack of basic resources in childhood. There were no statistically significant differences by immigrant status in education, household income, employment status, or lack of basic resources in adulthood or during the pregnancy. The Black immigrant women originated primarily from the Caribbean (65.8%) and Africa (26.3%), with a few specifying birthplaces in Europe (4.4%), Central America (0.9%), and South America (0.9%). Foreign-born women immigrating to the US before age 18 constituted 55% of the immigrants in the sample. Africans and Caribbeans, the predominant immigrant groups in this sample, did not differ in sociodemographic background or in age at immigration (data not shown; *p*s range from 0.24 to 0.63).

Prevalence of self-reported racism

Table 2 shows differences in self-reported racism by general immigrant status, age at immigration, and region of origin. Global comparisons by immigrant status, age at immigration, and region of origin all indicate significant US-born versus foreign-born differences in self-reported racism exposure across type (i.e., personal versus group) and timing (i.e., childhood versus adulthood) of exposure. Prevalences tended to be higher for racism directed against one's group than against oneself personally, as anticipated. US-born women were more than twice as likely as likely as foreign-born women to report that they had ever experienced personal racism and three times as likely to report that their racial/ethnic group in general had ever experienced racism, with the largest odds ratios corresponding to exposure in childhood (see Table 2). US-born women also were three times as likely as their foreign-born counterparts to report personal racism exposure during the pregnancy.

Table 3 provides odds ratios of self-reported racism that compare US-born women to each of the foreign-born subgroups. Interestingly, comparisons by age at immigration revealed that US-born women's racism prevalences were fairly similar in magnitude to those of foreign-born women immigrating before age 18 (for 4 of 6 variables ORs were not statistically significant), but were significantly higher than those of women immigrating after age 18. Those who immigrated before age 18 had significantly higher odds of childhood exposure to personal and group racism than those immigrating after age 18, although the groups did not differ significantly in their odds of personal racism in adulthood (see Table 2). Examined by region of origin, US-born women's prevalences were somewhat comparable in magnitude to Caribbean women's (for 3 of 6 variables ORs were not statistically significant), but they were significantly higher than African women's (see Table 3). Caribbeans had significantly greater odds than Africans of self-reported racism across

every category of exposure except personal racism in childhood and racism during the pregnancy (see Table 2).

Pervasiveness of self-reported racism

We conducted a separate analysis of the mean number of life domains in which participants reported personal or group racism in order to examine differences by immigrant status in the pervasiveness of racism exposure (see Table 2). Similar to the results for self-reported prevalence, bivariate tests of mean difference indicated that US-born Black women reported personal and group exposure in significantly more life domains than foreign-born Black women overall, those immigrating after age 18, and those from Africa. Foreign-born women immigrating before age 18 had significantly higher group racism scores and marginally higher personal racism scores than those immigrating after age 18. Caribbean immigrants had significantly higher personal and group racism scores than those immigrating from Africa (see Table 2).

To determine which variables to include as potential confounders in multivariate models, we first examined bivariate associations among the sociodemographic factors and participants' self-reported exposure to racism using one-way ANOVAs. Participants who were more highly educated or who lacked resources as a child or as an adult endorsed more domains of personal exposure (all ps < 0.01). Participants who were older, more highly educated, employed, higher in household income, or who had sufficient resources during the pregnancy reported more domains of group exposure (all ps < 0.05). Those background factors that altered the unstandardized regression coefficient for immigrant status by at least 10% when added to a predictive model of self-reported racism were age (34% change in personal model; 52% change in group model), lack of resources in childhood (16% change in personal model), and income adjusted for household size (17% change in group model).

After controlling for potential confounders, immigrant status remained a significant predictor of both personal and group racism scores, whether it was categorized as general immigrant status (i.e., US-born versus foreign-born), age at immigration, or region of origin. Moreover, the pattern of difference in racism exposure between immigrant status subgroups persisted. Foreign-born women who immigrated to the US before age 18 did not differ significantly from US-born women, although they did have significantly higher racism scores than foreign-born women who immigrated after age 18. By region of origin, Caribbeans had significantly higher group racism scores and marginally higher personal racism scores than Africans, but they did not differ from US-born women (see Table 2).

Responses to unfair treatment

Responses to unfair treatment did not differ significantly by general immigrant status or region of origin. Differences by age at immigration were marginally significant (see Table 2). Over 60% of participants, regardless of immigrant status, were classified as active responders who "talk to someone" and "try to do something" when treated unfairly. Fewer than 12% of women were classified as passive responders who "accept" unfair treatment as a fact of life and "keep it to themselves".

Discussion

The study reported here is notable for several reasons. This is the first investigation, to our knowledge, to explore immigrant status differentials in the self-reported racism experiences of pregnant Black women. It also is one of the few investigations that have considered both the timing of migration and geographic origin of Black pregnant women, in addition to their general immigrant status. While others have examined the self-reported racism experiences of Black pregnant women (e.g., Stancil, Hertz-Picciotto, Schramm & Watt-Morse, 2000), including direct and vicarious exposure in childhood and adulthood (e.g., Dominguez et al., 2008), none have assessed personal and group exposure along with the point in the life course at which that exposure has occurred. Therefore, the results of this investigation uniquely contribute to the literature, informing the development of more refined hypotheses for explaining immigrant status differentials in birth outcomes and providing a foundation for future racism and pregnancy research. They also are relevant for the study of racism and health more broadly, particularly with regard to immigrants' experiences, which the international literature tends to emphasize (e.g., Liebkind & Janiskaja-Lahti, 2000; Noh, Beiser, Kaspar, Hou, & Rummens, 1999).

The findings of this study support our hypothesis that US-born Black pregnant women would self-report more exposure to racial discrimination than their foreign-born counterparts, controlling for sociodemographic confounders. Not only did a higher percentage of US-born women report exposure to racism, their exposure was more pervasive, extending across a greater number of life domains and covering a longer duration of the life course. Moreover, we found that gross comparisons by general immigrant status masked important differences in self-reported racism exposure by age at immigration and region of origin. Foreign-born women who migrated to the US before the age of 18 and those from the Caribbean closely resembled US-born women in magnitude of self-reports of racism, differing significantly in only 2 of 10 and 3 of 10 of the comparisons, respectively, that we conducted. Foreign-born women immigrating after age 18 and those from Africa, on the other hand, reported significantly lower racism prevalence and fewer life domains of exposure than US-born women in every instance.

Given the legacy of racism in the US, African Americans have developed a "healthy cultural suspicion" of Whites and feel it is their responsibility to actively prepare their children for life in a society that has historically subjugated and devalued people of African descent (Boyd-Franklin, 2003). Because race is a highly salient aspect of the African American experience, it is a primary lens through which they view social situations and institutions (Myers et al., 2003). Black immigrants, on the other hand, may not consider race to be a particularly relevant social characteristic, especially if they are the racial majority in their homelands (Arthur & Katkin, 2006). Originating from a majority status context, they are likely to possess greater personal, social and cultural capital to fuel their mobility efforts than US-born Blacks do (Waters, 1999). Importantly, Black immigrants come voluntarily to the US expecting to improve their social mobility. Accorded "model minority" status by White Americans, many Black immigrants fear that being equated with African Americans and the negative stereotypes surrounding them could impede their own social advancement (Waters, 1999). This concern is particularly acute among upwardly mobile, middle class

immigrants who tend to be critical of African Americans' work ethic and sensitization to issues of race (Waters, 1999). In an attempt to distinguish themselves, many immigrants emphasize their accents and strive to maintain their native customs and practices (Waters, 1999).

Nevertheless, race continues to operate as a powerful social stratifier in the US, constraining opportunities and shaping social experiences (Bonilla-Silva, 2003). For example, Freeman (2002) has reported that Black immigrants in Miami and New York, regardless of level of acculturation and occupational status, are highly segregated from Whites and fairly well integrated with African Americans. The residential patterns of Hispanic immigrants indicate that there is a high degree of segregation between Black Hispanics and White Americans, but not between White Hispanics and White Americans (see Freeman, 2002). As Black immigrants themselves start to encounter race-based obstacles to their social advancement, their highly positive views of the American opportunity structure may start to change (Gans, 1992; Phinney & Onwughalu, 1996; Portes & Zhou, 1993).

Findings from our study suggest that length of time in the US influences immigrants' self-reports of racial discrimination. Foreign-born Black women who immigrated to the US as children did not differ significantly in their self-reports of racism from US-born Black women, but they were significantly more likely to report personal and group racism, and they endorsed a significantly greater number of life domains of exposure, controlling for socio-demographic confounders, than foreign-born women who migrated as adults. Other studies also have found that the longer immigrants of color reside in the US, the more racism they report (Barry & Grilo, 2003; Finch, Kolody, & Vega, 2000).

Given the more extensive length of their US residence, the immigrants in our sample who immigrated before age 18 were vulnerable to discriminatory treatment for a longer period of time than those who migrated as adults. As a result, they not only report more racism than foreign-born women immigrating after age 18, they also report racism at earlier stages of the life course. Compared to those immigrating after age 18, foreign-born women immigrating before age 18 were had nearly 10 times as likely to report personal racism in childhood and 7 times as likely to report awareness of group racism as children. Early exposure also characterized US-born Black women's racism experiences, and appears to underlie immigrant status differentials in the overall prevalence of racism. More than twice as many US-born women as immigrant women reported personal or group racism as children, while the discrepancy in exposure was much smaller in adulthood.

Few racism and pregnancy studies have measured self-reported exposure across specified periods of the life course (e.g., Collins, David, Handler, Wall, & Andes, 2004, assessed racism exposure "during this pregnancy"), and only one other, to our knowledge, has assessed racism experiences specifically in childhood. Dominguez and colleagues (2008) recently reported that African American pregnant women's childhood-vicarious exposure to racism, typically via a parent or guardian, predicted lower birthweight in their infants, independent of exposure to racism in adulthood and medical and sociodemographic risk factors. These authors posit that certain periods of the life course may be more sensitive to racism-related stressors than others, underscoring the value of taking a life course approach

to the assessment of racism and considering the developmental context within which racism is experienced (see Lu & Halfon, 2003; Krieger, 1999).

Acculturation may be another pathway linking time in the US to perceptions of racism. Black immigrants have been reported to feel intense pressure to acculturate into African American society (Kasinitz, 1992; Waters, 1999). This pressure could be related to their residential proximity to US Blacks. As noted above, Black immigrants tend to be residentially integrated with African Americans (Freeman, 2002). For immigrants who arrive as children, prolonged contact with American Blacks, coupled with the developmental importance of identity formation and peer acceptance, could foster assimilation into Black American society and the adoption of attitudes, perceptions, and worldviews that are similarly skeptical of the White power structure. Previous studies have noted greater self-reported experiences of racism among more highly acculturated Black (Waters, 1994) and Mexican (Finch et al., 2000) immigrants. Besides influencing perceptions of racism, acculturation could trigger a variety of other behavioral (e.g., riskier health practices) (Landale et al., 1999) and psychosocial (e.g., acculturative stress; weakened social networks, less positive views of pregnancy) (Sherraden & Barrera, 1996; Zambrana, Scrimshaw, Collins, & Dunkel-Schetter, 1997) changes that negatively influence pregnancy outcomes.

Another key finding of this study is that immigrant women's self-reported experiences of racism varied by their region of origin. Caribbean women did not differ from US-born women in their self-reports of racism; however, they reported higher prevalence and more pervasive exposure to racism than African women, particularly for racism directed against one's group. Differences in self-reported racism between the Caribbean and African women in our sample might reflect dissimilarities in race relations within their native lands. The Caribbean and US share a history of race-based plantation slavery and extensive European colonization which has greatly influenced the racial consciousness and relative social position of Blacks in those regions (Sullivan-Gonzalez & Wilson, 2001). The geographic location of the Caribbean also fosters extensive tourism which exposes its inhabitants to a diverse population of visitors. Africans, on the other hand, typically migrate from regions of the continent where Blacks are numerically, socially, and politically dominant. Therefore, they would be expected to have the fewest number of pre-migration racism experiences and to be the least likely to interpret their social experiences as racially meaningful.

Read and Emerson (2006) report that race relations in Black immigrants' homelands have an independent effect on their health status in the US. These authors found that "racial context of origin" was significantly related to differences in self-reported health status among Black immigrants, with Africans having better self-reported health than West Indians, who had better health than Black Europeans, controlling for acculturation and a wide range of social and demographic characteristics. They argue that a Black majority context presents considerably fewer racism-related stressors that could negatively impact health, while simultaneously building greater resilience to such threats, than mixed or White majority racial contexts.

Besides differences in the racial context of their native lands, region of origin effects on self-reported experiences of racism also could be the result of differences in the US migration

histories of Caribbean and African immigrants. Caribbeans are the largest Black immigrant group in America (US Bureau of the Census, 2000), and they have the longest record of voluntary migration to the US (Dodoo, 1997). The first major wave of Caribbean immigrants arrived in the US nearly 40 years before the passage of the Civil Rights Act, which meant they were subject to the same racially oppressive conditions that African Americans faced under Jim Crow (Freeman, 2002; Kasinitz, 1992). On the wrong side of the color line, these early immigrants were forced to settle among and assimilate into the African American mainstream. Although there is some tension and negative stereotyping between Caribbean immigrants and African Americans (Kasinitz, 1992; Waters, 1999), similarities in their histories may be partially responsible for similarities in their self-reported experiences of racism. Africans did not start immigrating to the US en masse until after 1965 (Dodoo, 1997). They are the most selective subgroup of foreign-born Blacks in America, having the highest level of education and the fewest number of years in residence of all Black immigrants (Dodoo, 1997; Read & Emerson, 2006). Even after controlling for socioeconomic factors, we found that the African immigrants in our sample self-reported significantly less racism, particularly that which is group-directed, than Caribbean women and US-born Black women, which may reflect, in part, less first-hand and intergenerational experiences with the American social system, as well as differing perspectives on the social relevance of race, as suggested above.

While our findings enhance the racism and pregnancy literature, the limitations of our study must be considered. The generalizability of our results may be hampered by the fact that all of the participants were English-speaking and receiving prenatal care from a health maintenance organization (HMO). Members of HMOs pre-pay for comprehensive, prevention-focused health care services, which could have led to over selection of higher SES Black women and lower than expected incidences of LBW and PTD, as mentioned previously. For instance, the US-born and foreign-born women in our sample did not differ in education or adult income, although Black immigrants typically have higher earnings and educational attainment than African Americans (Dodoo, 1997; Fuentes-Afflick et al., 1998; Read & Emerson, 2006). In our sample, higher levels of education were associated with greater racism prevalence and pervasiveness, a fairly robust finding in the literature (see reviews by Paradies, 2006; Williams & Mohammed, 2008). Blacks with greater socioeconomic resources might be more likely to encounter and perceive subtle prejudice and institutionalized discrimination (Clark, Anderson, Clark, & Williams, 1999), typical of contemporary manifestations of racism (Harrell, 2000; Myers et al., 2003), and they may be better able and willing to name discriminatory experiences than working class and poor African Americans (Krieger 1999; Williams & Mohammed, 2008). The personal exposure prevalences in our study are higher (69% of overall sample) than those reported for samples of lower SES Black pregnant women responding to a similar, but shorter, measure of racism (e.g., 55% reported personal exposure in Collins et al., 2004; 54% in Stancil et al., 2000), but comparable to rates reported in more socioeconomically diverse samples of Black pregnant women (e.g., 73% in Dominguez et al., 2008). The higher prevalence of personal racism exposure in the current study also is likely due to the fact that our measure included more life domains of exposure than these previous studies (8 in present study versus 5 in Collins et al., 2004 and 6 in Stancil et al., 2000). Furthermore, we asked respondents to

indicate the period of the life course in which racism occurred, possibly triggering additional memories by focusing their recall on a specific time frame.

While our measure of self-reported experiences of racial discrimination contains features that other studies have not incorporated, we did not ask respondents to enumerate specific events within each of the different life domains or to indicate their level of severity or the frequency with which they occur. As a result, we have limited information about the quantity and quality of the racism events participants have experienced. A validation study of the Experiences of Discrimination (EOD) measure, on which our racism items are based, found that whether self-reported racism was assessed using a yes/no response set or a frequency of exposure scale, the psychometric properties of the measure were the same in a sample of working class African American and Latino adults (Krieger et al., 2005). The study also reported that items measuring “worry about unfair treatment”, a potential proxy for stressfulness, demonstrated low reliability. Nevertheless, some researchers point out that measures of racial/ethnic discrimination that employ dichotomous versus frequency-based response sets constrain variance, and consequently, are likely to underestimate the effects of racial/ethnic discrimination (Landrine, Klonoff, Corral, Fernandez, & Roesch, 2006). There also is concern that while racism is typically conceptualized within a stress paradigm, few measures include appraised severity or stressfulness, which is posited to be a key mechanism linking both direct and vicarious stress exposure to compromised health (Landrine et al., 2006; Myers et al., 2003; Utsey, 1998). Therefore, while the racism items used in this study are based on a valid and reliable measure, researchers are encouraged to continue refining and testing measures of racism to further improve our ability to assess and estimate its effects (see Harrell, 2000; Kressin, Raymond, & Manze, 2008; Krieger, 1999; Mays, et al., 2007; Nuru-Jeter et al., 2009; Paradies, 2006; Williams & Mohammed, 2008).

Our findings should be considered conservative estimates of differences in US-born and foreign-born Black pregnant women’s self-reported racism experiences. By asking about unfair treatment “because of your race/ethnicity” instead of “because you are Black”, we cannot be certain that foreign-born women reported unfair treatment based exclusively on their race rather than their immigrant status. We also cannot assume that a “No” response on the racism items necessarily indicates “no exposure”, since participants may have been unable or chosen not to disclose their racism experiences (Krieger, 1999; Krieger et al., 2005). Some degree of recall error must be assumed as well, since our data are based on retrospective reports. This error should involve only random misclassification, however, rather than any systematic bias.

Conclusion

African American women have the highest rates of preterm delivery, low birthweight, and infant mortality of all racial/ethnic groups in the country. This long-standing reproductive disadvantage is a major public health problem that defies explanation by conventional means. By uncovering the factors that contribute to the significantly better pregnancy outcomes of immigrant Black women, new insights into the etiological factors that underlie the persistent racial disparity in adverse birth outcomes may be gained. Findings from this study suggest that differential exposure to racism over the life course may be one such factor

that critically distinguishes foreign-born Black women from their US-born counterparts. Future research efforts aimed at understanding the ways in which the racial climate of a society injures the well-being of its minority constituents will not only promote the health interests of the public, but its human interests as well.

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Table 1

Sample characteristics by immigrant status: Project Viva, Boston, MA, USA, 1999–2002.

Variable	All (*N* = 299)	US-born (*N* = 185)	Foreign-born (*N* = 114)	*p*
Maternal age[a]				<0.001
14–19 years	10%	15%	3%	
20–24	12	15	9	
25–29	26	27	24	
30–34	31	29	34	
35–39	15	9	25	
40+	5	5	6	
Education[a,b]				>0.10
HS or less	25	28	21	
Some college	38	39	36	
BA or BS	26	23	32	
Graduate degree	11	11	11	
Marital status				<0.001
Married	49	38	67	
Cohabitating	26	28	23	
Single	25	34	11	
Household income[a,c]				>0.10
Less than $20,000	13	12	15	
20,001 to 40,000	23	27	18	
40,001 to 70,000	25	23	27	
More than 70,000	22	21	23	
Employed[a,d]	62	58	68	>0.10
Lack resources for food, medical care, rent[e]				
Ever	17	22	10	<0.01
As a child[b]	10	15	2	<0.001
As an adult[b]	7	8	5	>0.10
While pregnant[a]	4	3	4	>0.10

Note. Chi-squares were used to test percentage differences.

[a] Significantly related to group racism scores: age ($F(5, 293) = 2.6$, $p < 0.05$), education ($F(3, 295) = 16.3$, $p < 0.001$), employed ($F(2, 296) = 6.6$, $p < 0.05$), household income ($F(4, 294) = 28.3$, $p < 0.0001$), lack resources while pregnant ($F(2, 296) = 5.8$, $p < 0.01$).

[b] Significantly related to personal racism scores: education ($F(3, 295) = 9.0$, $p < 0.0001$), lack of resources as a child ($F(2, 296) = 5.59$, $p < 0.01$), lack of resources as an adult ($F(2, 296) = 7.8$, $p < 0.001$).

[c] "Don't know": All = 17%, US-born = 17%, Foreign-born = 18%.

[d] Missing data: All = 27%, US-born = 30%, Foreign-born = 22%.

[e] Missing data: "Ever" = 27% (All), 30% (US-born), 22% (Foreign-born); "As a child" = 27% (All), 30% (US-born), 22% (Foreign-born); "As an adult" = 27% (All), 30% (US-born), 22% (Foreign-born); "While pregnant" = 27% (All), 30% (US-born), 22% (Foreign-born).

Table 2

Immigrant status differentials in self-reported racism and responses to unfair treatment: Project Viva, Boston, MA, USA, 1999–2002.

	Immigrant status			Age at immigration[a]			Region of origin [b]		
	US	Foreign	OR (95% CI) or *p*	<18	≥18	OR (95% CI) or *p*	Caribb.	Africa	OR (95% CI) or *p*
	N = 185	*N* = 114		*N* = 63	*N* = 51		*N* = 75	*N* = 30	
Racism prevalence									
Personal racism									
Ever	79%	59%	2.6 (1.6, 4.4)	67%	49%	2.1 (1.0, 4.4)	64%	40%	2.7 (1.1, 6.4)
Childhood	59	25	4.1 (2.4, 7.0)	40	7	9.6 (2.7, 34.3)	27	17	1.8 (0.6, 5.5)
Adulthood	65	50	1.9 (1.2, 3.0)	54	45	1.4 (0.7, 3.1)	55	30	2.8 (1.1, 7.1)
This pregnancy	17	7	3.0 (1.3, 7.0)	8	4	2.1 (0.4, 11.3)	7	0	*c*
Group racism[d]									
Ever	90	75	3.2 (1.7, 6.0)	84	63	3.1 (1.3, 7.6)	83	50	4.8 (1.9, 12.1)
Aware <18	83	39	7.8 (4.5, 13.5)	57	17	6.5 (2.6, 16.3)	46	10	7.3 (2.0, 26.4)
Summary scores									
Personal racism[e]									
Crude mean	2.5	1.9	$p < 0.05$	2.3	1.5	$p < 0.10$	2.1	1.1	$p < 0.05$
95% CI	2.2, 2.8	1.6, 2.3		1.7, 2.8	0.9, 2.1		1.6, 2.6	0.3, 1.8	
Adj. mean	2.7	2.1	$p < 0.05$	2.1	1.2	$p < 0.05$	2.0	1.2	$p < 0.10$
95% CI	2.3, 3.1	1.6, 2.6		1.0, 3.2	−0.8, 2.4		0.9, 3.1	−0.01, 2.5	
Group racism[d,b]									
Crude mean	5.2	4.4	$p < 0.05$	5.2	3.4	$p < 0.01$	5.1	2.1	$p < 0.0001$
95% CI	4.8, 5.6	3.8, 4.9		4.5, 5.9	2.6, 4.2		4.4, 5.7	1.1, 3.2	
Adj. mean	5.1	4.0	$p < 0.01$	4.8	3.0	$p < 0.01$	5.1	2.1	$p < 0.0001$
95% CI	4.6, 5.6	3.4, 4.7		3.2, 6.4	1.2, 4.8		3.5, 6.6	0.27, 3.9	
Responses to unfair Tx			$p > 0.10$			$p < 0.10$			$p > 0.10$
Active	80%	70%		78%	61%		68%	74%	
Combination	14	22		14	33		26	15	
Passive	6	8		8	7		6	11	

Note. Logistic regression was used to generate odds ratios of racism prevalence; PROC GLM in SAS was used to test differences in racism means (crude and adjusted for age, income adjusted for household size, and lack of resources in childhood); Chi-square tests (χ^2) were used for global comparisons of racism prevalence and to examine percentage differences in responses to unfair treatment.

[a] All p-values <0.001 for global comparisons with US-born of self-reported racism by age at immigration, except personal-ever ($\chi^2 = 18.26$, $p < 0.01$) and personal-adulthood ($\chi^2 = 7.51$, $p < 0.05$).

[b] All p-values <0.001 for global comparisons with US-born of self-reported racism (personal and group) by region of origin, except personal-adulthood ($\chi^2 = 13.77$, $p < 0.01$).

[c] Given 0 cell for Africans, the odds ratio is infinity; $p > 0.10$ for Fisher's exact test.

[d] 6 US-born women and 6 foreign-born women were missing data on self-reported group racism.

[e] ps > 0.10 for crude and adjusted mean comparisons of US-born with <18 and Caribbeans; ps < 0.01 for crude and adjusted mean comparisons of US-born with ≥18 and Africans.

Table 3

Comparing odds of self-reported racism: US-born vs. foreign-born subgroups: Project Viva, Boston, MA, USA, 1999–2002.

	Odds ratio (95% confidence interval)			
	Age at immigration		Region of origin	
	US vs. <18	US vs. ≥18	US vs. Caribb.	US vs. Africa
Racism prevalence				
Personal				
Ever	1.9 (1.0, 3.5)	3.9 (2.0, 7.5)	2.1 (1.2, 3.8)	5.6 (2.5, 12.6)
Childhood	2.1 (1.7, 3.8)	20.3 (6.1, 67.7)	3.8 (2.1, 7.1)	7.0 (2.6, 19.3)
Adulthood	1.6 (0.9, 2.9)	2.3 (1.2, 4.4)	1.5 (0.9, 2.7)	4.4 (1.9, 10.1)
This pregnancy	2.2 (0.8, 6.2)	4.7 (1.1, 20.6)	2.6 (0.9, 7.0)	*a*
Group[b]				
Ever	1.8 (0.7, 4.0)	5.5 (2.6, 11.6)	1.9 (0.9, 4.2)	9.3 (3.9, 22.0)
Aware <18	3.8 (2.0, 7.2)	24.8 (10.6, 58.4)	5.9 (3.2, 10.9)	43.0 (12.2, 151.4)

[a] Given 0 cell for Africans, the odds ratio is infinity; $p < 0.05$ for Fisher's exact test.

[b] 6 US-born women and 6 foreign-born women were missing data on self-reported group racism.