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Prevalence of High-Risk Sexual Behaviors Among Monoracial and Multiracial Groups from a National Sample: Are Multiracial Young Adults at Greater Risk?

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Abstract

The present study compared the prevalence and variation in high-risk sexual behaviors among four monoracial (i.e., White, African American, Asian, Native American) and four multiracial (i.e., White/African American, White/Asian, White/Native American, African American/Native American) young adults using Wave IV data (2008–2009) from the National Longitudinal Study of Adolescent to Adult Health ($N = 9724$). Findings indicated differences in the sexual behavior of monoracial and multiracial young adults, but directions of differences varied depending on the monoracial group used as the referent and gender. Among males, White/African Americans had higher risk than Whites; White/Native Americans had higher risk than Native Americans. Otherwise, multiracial groups had lower risk or did not differ from the single-race groups. Among females, White/Native Americans had higher risk than Whites; White/African Americans had higher risk than African Americans. Other comparisons showed no differences or had lower risk among multiracial groups. Variations in high-risk sexual behaviors underscore the need for health research to disaggregate multiracial groups to better understand health behaviors and outcomes in the context of experiences associated with a multiracial background, and to improve prevention strategies.

Keywords

Sexual behavior; Multiracial; Young adults

Introduction

The United States has seen a dramatic increase in the number of multiracial children and youth (i.e., individuals who report having two or more racial heritages) (Bean & Lee, 2010; Lee & Bean, 2004; U.S. Census, 2010, Wang & Taylor, 2012). In 2010, nine million Americans (2.9 % of the total population) identified as multiracial—a 32 % increase since

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2000—and this percentage is projected to increase over the next few decades (Jones & Bullock, 2012). This fast growing minority has generated increased attention in academic research and theory, and implications for social policy. Therefore, one of the increasing challenges for the field of public health is to examine health behaviors and outcomes in the context of experiences associated with a multiracial background.

Despite increasing interest in multiracial groups, most research on high-risk sexual behaviors (i.e., behaviors contributing to unplanned pregnancies and sexually transmitted infections [STIs]) (Landor, Simons, Simons, Brody, & Gibbons, 2011; O'Donnell et al., 2006) has focused on monoracial (single-race origin) rather than multiracial individuals, particularly differences between Whites and African Americans. African American men report higher levels of risky sexual behaviors (e.g., multiple sequential and concurrent sexual partners, onetime sexual partners) compared with White men and have higher odds of maintaining high sexual risk over time (Adimora, Schoenback, & Doherty, 2007; Dariotis, Sifakis, Pleck, Astone, & Sonenstein, 2011). Likewise, the proportion of African American women who have had concurrent sexual partnerships within the past 12 months is two times that of White women (Adimora, Schoenback, Taylor, Khan, & Schwartz, 2011). African American women also report more sequential sexual partners in the past 12 months compared with non-Hispanic Whites (Chandra, Mosher, Copen, & Sionbean, 2011). In addition, African Americans report higher odds of having sold or paid for sex (Kaestle, 2012). It is not clear how multiracial groups fit into these patterns of racial differences.

Some studies suggest that multiracial individuals are at greater risk than monoracial individuals on a range of problem behaviors and psychological difficulties even after accounting for other demographic characteristics(Choi, Harachi, Gillmore,& Cataloano, 2006; Choi, He, Herrenkohl, Catalano, & Toumbourou, 2012; Conney& Radina, 2000; Schlaback, 2013). Multiracial individuals report more general health problems, school behavior problems, and substance use than monoracial individuals (Shih & Sanchez, 2005; Udry, Li, & Hendrickson-Smith, 2003). For example, Udry etal. (2003) found that White/American Indian and White/Asian adolescents had higher odds (OR 1.73 and OR 1.50, respectively) of having fair to poor health compared to their monoracial White peers. Early work by Park (1928) argued that multiracial individuals report such deleterious health experiences as a result of living across two or more discordant social worlds with varying racial traditions and unequal power (i.e., the"marginal man"hypothesis). Thus, as a result of such status, the"marginal man"is more susceptible to negative psychological distress and behavioral problems (Stonequist, 1937). The more recent "variant approach" provides a framework for understanding multiracial identity that includes a variety of identity development models specific to multiracial individuals(Thornton& Wason, 1995). But similar to the "marginal man,"in variant approaches, it is proposed that multiracial individuals face unique challenges that may make the identity development process more difficult, thereby leading to a greater likelihood of negative adjustment.

However, in contrast to findings supporting the "marginal man"and"variant"models, other evidence indicates that multiracial individuals have more positive outcomes such as higher levels of comfort in intimate interracial relationships or are just as well adjusted as their monoracial peers (e.g., Bonam& Shih, 2009; Quillan & Redd, 2009; Shih & Sanchez, 2005),

resulting in fewer negative psychosocial consequences and risky behaviors such as delinquency (Golovensky, 1951). In sum, the literature is not consistent in whether the health behaviors and outcomes of multiracial individuals are indeed different from their monoracial peers. Reviews have suggested that directions of outcomes are often a function of participant sampling, the outcome being examined, the measures used, and the types of comparisons made (Shih & Sanchez, 2005). Weusea national sample to examine the high-risk sexual behavior profiles of monoracial and multiracial young adults.

The present study is one of the first to document the high-risk sexual behaviors of multiracial young adults. Further, extant literature is largely based on relatively small samples (Beal, Ausiello, & Perrin, 2001); limits analysis to children and adolescents (Cheng & Lively, 2009); and focuses on psychological outcomes and risk behaviors such as delinquency and substance use (Choi et al., 2006). While a few studies have used the National Longitudinal Study of Adolescent to Adult Health (Add Health) data to examine health outcomes of multiracials (Campbell & Eggerling-Boeck, 2006; Udry et al., 2003), none have documented the high-risk sexual behaviors of multiracial young adults.

In the current study, we pose the question, "Are multiracial young adults more likely to engage in high-risk behaviors than monoracial adults?" We describe the prevalence of high-risk sexual behaviors among monoracial and multiracial young adults and compare the sexual behaviors of specific multiracial groups with their respective component single-race counter-parts. We also examined differences after adjusting for socio demographic covariates such as education, age, and current relationship status. The present findings can inform future analysis of data from multiple racial groups and may provide insight into health disparities that could be overlooked if multiracial groups are combined. Moreover, we examined specific multiracial populations that have not been given suffi attention todate (e.g., African American/Native American, White/Asian). These more specific analyses can potentially inform prevention and intervention programs about their generalizability to multiracial groups.

Method

Participants

We used Wave IV data (2008–2009) from Add Health to examine the prevalence of high-risk sexual behaviors among monoracial and multiracial young adults. Add Health is a nationally representative school-based probability sample of the U.S. adolescents in Grades 7 through 12 in 1994–1995 who have been followed into young adulthood to investigate the determinants of health and health behaviors (Harris, 2013).

Participants were asked to identify their race using the following question in Wave I in-home interviews:"What is your race? You may give more than one answer."Responses were White, Blackor African American, Native American or American Indian, Asian or Pacific Islander, and Other. The check-all-that-apply technique was employed in Add Health to allow participants to select as many races as were applicable. Using self-identification enabled us to gain insight into participants' view of their racial self-concept. In a separate question, Add Health assessed Hispanic or Latino origin. Similar to other Add Health

studies (e.g., Campbell & Eggerling-Boeck, 2006), we excluded individuals who selected Hispanic or Latino origin in study analyses as it was unclear whether or not they were thinking of themselves as mixed race. We also omitted participants who chose the "other" race group either alone or with another race group ($n = 278$) given the ambiguity in meaning, and restricted our analyses to race categories of sufficient size (greater than 20) to allow more precise estimates.

We excluded participants missing valid Wave IV sample weights, data on sexual risk behaviors, or socio demographic information, yielding an analytic sample of 9724 ($n = 4558$ males, $n = 5166$ females). The study included young adults who self-identified as non-Hispanic White ($n = 6625$, 78.6 %), non-Hispanic African American ($n = 2177$, 15.2 %), non-Hispanic Asian ($n = 521$, 2.8 %), non-Hispanic Native American ($n = 56$,<1.0 %), non-Hispanic White/African American ($n = 79$,<1.0 %), non-Hispanic White/Asian ($n = 64$,<1.0 %), non-Hispanic White/Native American ($n = 157$, 1.7 %), and non-Hispanic African American/Native American ($n = 45$,<1.0 %). Table 1 summarizes the sample's socio demographic characteristics.

We examined six sexual risk behaviors assessed at Wave IV: (1) lifetime number of sex partners, (2) number of sex partners before 18 years old, (3) number of sex partners in past 12 months, (4) ever had one-night stand, (5) ever had concurrent sexual partners, and (6) ever paid/was paid for sex. Similar to other research, we considered these behaviors as high-risk sexual behaviors because these behaviors contribute to unplanned pregnancies and STIs (O'Donnell et al., 2006). Lifetime number of sex partners, number of sex partners before 18 years old, and number of sex partners in past 12 months were continuous indicators, and one-night stand, concurrent sexual partners, and paid/was paid for sex were dichotomous indicators (yes or no). Sociodemographic covariates included in regression models were participant's age, education (less than high school, high school graduate, some college/ vocational and technical school, college graduate or more), current relationship status (none, married, cohabiting, dating), and mother's education.

Statistical Analyses

We calculated the weighted prevalence of socio demographic characteristics and high-risk sexual behaviors formonoracial and multiracial young adult groups, and we conducted χ^2 and ANOVA analyses to identify significant group differences. Using OLS and logistic regression, we estimated unadjusted and adjusted coefficients and ORs to test whether multiracial young adults engaged in more or less high-risk sexual behaviors compared with their single-race young adult counterparts (as the reference group). Analyses were conducted separately by gender. In addition, we used sampling weights and controlled for survey design using STATA 11.0 "svyset" commands (Stata Corporation, College Station, TX).

Results

Table 1 shows the sample's sociodemographic characteristics. Based on the weighted percentages, the analytic sample was equally divided between males and females. Forty-two percent of participants reported their education to be at least some college, and one-third of participants reported their mother's education to be at least a high school degree. Fifty-one

percent of participants were 27–29 years old. About 43 % of participants reported being currently married.

Prevalence of High-Risk Sexual Behaviors by Monoracial and Multiracial Groups

Findings from χ^2 and ANOVA analyses indicated significant group differences in prevalence of high-risk sexual behaviors. For young adult males, we found significant group differences for 5 of 6 high-risk sexual behaviors (Table 2). Although there was some variation across behaviors, African American and White/African American males reported the greatest number of partners and were more likely to report concurrent sexual partners and having paid for or being paid for sex. Asian males reported the fewest sexual partners. For young adult females, analyses revealed significant group differences for 5 of 6 high-risk sexual behaviors(Table 3). Differences were more variable than among males, but generally White/Native American and African American/Native American females reported more sex partners and greater likelihood of concurrent partnerships.

Comparisons of Monoracial With Multiracial Groups on High-Risk Sexual Behaviors

White Young Adults Compared With White/African American, White/Asian, and White/Native American Young Adults—Tables 4 and 5 show the results of unadjusted and adjusted multivariate regression models. Each set compared the multiracial groups to a single-race group (referent group). For the first set, White/African American young adult males tended to be at higher risk than non-Hispanic White males. They reported significantly more sex partners in the past 12 months ($B = 1.09$, $p<.05$) compared with their non-Hispanic White male counterparts, and had higher odds of having had concurrent sexual partners and ever paid/was paid for sex (OR 3.65; 95 % CI 1.41, 9.41 and OR 6.74; 95 % CI 0.85, 9.58, respectively). White/ Asian young adult males tended to be at lower risk than non-Hispanic White males. They reported significantly fewer lifetime sex partners ($B = -7.49$, $p<.01$) and fewer sex partners before age 18 ($B = -1.24$, $p<.01$) compared with their non-Hispanic White male counterparts. White/Native American young adult males did not differ from non-Hispanic White males in adjusted models (Table 4). For young adult females, the only difference in adjusted estimates appeared for lifetime sex partners; White/ Native American women reported more partners ($B = 4.59$, $p<.05$) (Table 5).

African American Young Adults Compared With African American/White and African American/Native American Young Adults—African American/White young adult males did not differ in risk from African American males in adjusted models. African American/Native American young adult males tended to be at lower risk than African American males. They reported significantly fewer lifetime sex partners and fewer sexual partners before 18 years old ($B = -13.95$, $p<.01$ and $B = -3.43$, $p<.05$, respectively) compared with their African American male counterparts. In addition, the odds of having had a one-night stand were significantly lower among African American/Native American males (OR 0.27; 95 % CI 0.07, 1.11) relative to African American males (Table 4). For young adult females, only two differences appeared. African American/White young adult females had higher odds of having had a one night stand (OR 2.27; 95 % CI 0.91, 5.63) relative to African American females, whereas African American/Native American young

adult females reported significantly fewer sexual partners before age 18 ($B = -1.42$, $p<.05$) compared to their African American female counterparts (Table 5).

Asian Young Adults Compared With Asian/White Young Adults—Asian/White young adult males had lower odds of having ever paid/was paid for sex (OR 0.08; 95 % CI 0.01, 0.64) relative to Asian males (Table 4). For young adult females, Asian/Whites were not significantly different from Asian females on high-risk sexual behaviors (Table 5).

Native American Young Adults Compared With Native American/White and Native American/African American Young Adults—Native American/White young adult males reported significantly more sex partners before age 18 ($B = 1.58$, $p<.05$) relative to Native American males. Native American/African American young adult males were not significantly different from Native American males on high-risk sexual behaviors (Table 4). For young adult females, Native American/Whites were not significantly different from Native American females on high-risk sexual behaviors. Native American/African American young adult females had lower odds of having had a one-night stand (OR 0.15; 95 % CI 0.03, 0.78) compared with their Native American female counterparts (Table 5).

Discussion

We examined the prevalence of high-risk sexual behaviors and assessed differences in those behaviors between specific multiracial groups compared with their respective component single-race counterparts. Results were based on a relatively large and diverse sample of young adults (including understudied multiracial groups such as Whites/Native Americans and African Americans/Native Americans).

We found differences in high-risk sexual behaviors, but the direction of difference varied depending on the monoracial group used as the referent and gender. In multivariate models, among males, White/African Americans had higher risk than Whites and White/Native Americans had higher risk than Native Americans. Otherwise, multiracial groups had lower risk or, more commonly, were not different from the single-race group. Among females, White/Native Americans reported more lifetime sex partners than Whites and White/African Americans were more likely to report a one-night stand than African Americans. Other comparisons showed lower risk among multiracial groups or, more typically, showed no differences. Therefore, these results illustrate no consistent evidence that multiracial young adults exhibit more difficulties in psychosocial adjustment compared with their monoracial counterparts, except for White/Native American young adults, who appeared to be disadvantaged on these domains. These findings were similar to those from a previous Add Health study (Campbell & Eggerling-Boeck, 2006).

Although our analyses indicated one behavioral difference between White/Native Americans and Native Americans, this was limited to a specific monoracial and multiracial group, suggesting the possibility that differences in risk, at least for the behaviors examined here, do not persist across all monoracial and multiracial groups. Udry et al. (2003), also using Add Health data, found that multiracial adolescents (as a group) were more likely to have had sexual intercourse than monoracial Whites and Asians, but they did not make these

comparisons with an eye toward the monoracial group used as the referent or gender differences.

Overall, our results showed no clear support for the"marginal man"hypothesis. Rather, findings suggest that there may not be a simple answer to the question of whether multiracial young adults engage in high-risk sexual behaviors to a greater extent than their monoracial peers. As has been observed by others (e.g., Shin & Sanchez, 2005), differences between monoracial and multiracial groups appear to vary, depending on the behavior examined, racial comparison group, and gender. It is likely that the intersections of multiple contextual factors are also important moderators of associations with well-being.

Conclusion

The growing population of multiracials strengthens the impetus for studying health behaviors and outcomes of these groups. Our findings offer unique high-risk sexual behavior profiles for multiracial groups, including more specific multiracial populations that have not been given sufficient attention (e.g., African Americans/Native Americans, Whites/Asians) in past work.

Our findings, based on a nationally representative sample, suggest that patterns vary, based on the considerations noted above, as well as the developmental period under consideration. Most research to date has focused on adolescents, an appropriate emphasis, given the theorized significance of identity development during that period. However, more developmentally oriented longitudinal studies of multiracial individuals are warranted. Understanding the processes that lead to risk versus resilience, and how these processes may vary across historical time, personal context, and period of the individual's life course, will provide the foundation for programs to enhance healthy development.

Acknowledgments

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Table 1

Sociodemographic characteristics, by monoracial and multiracial groups: National Longitudinal Study of Adult Health, Wave IV (2008–2009)

	Non-Hispanic White (n=6625; weighted %=78.6)	Non-Hispanic African American (n=2177; weighted %=15.2)	Non-Hispanic Asian (n=521; weighted %=2.8)	Non-Hispanic Native American (n=56; weighted %<1.0)	Non-Hispanic White/African American (n=79; weighted %<1.0)	Non-Hispanic White/Asian (n=64; weighted %<1.0)	Non-Hispanic White/Native American (n=157; weighted %1.7)	Non-Hispanic African American/Native American (n=45; weighted %<1.0)	χ^2(df)
Gender									16.13 (7)
Male	3176 (51.1)	927 (48.5)	269 (52.4)	27 (58.7)	36 (47.2)	30 (41.7)	30 (52.5)	15 (31.7)	
Female	3449 (48.9)	1250 (51.5)	252 (47.6)	29 (41.3)	43 (52.8)	34 (58.4)	79 (47.5)	30 (68.3)	
Education									308.76** (21)
Less than high school	432 (7.4)	182 (11.8)	16 (2.2)	6 (2.9)	4 (9.2)	4 (4.1)	21 (17.1)	4 (14.6)	
High school	1004 (15.8)	340 (22.0)	56 (12.5)	19 (44.9)	9 (19.5)	6 (8.2)	26 (18.7)	7 (16.3)	
Some college/vocational and technical school	2794 (42.0)	1029 (43.7)	194 (38.6)	22 (35.4)	36 (44.1)	24 (46.3)	75 (41.2)	21 (41.3)	
College or more	2395 (34.9)	626 (22.5)	255 (46.8)	9 (16.9)	30 (27.3)	30 (41.4)	35 (22.9)	13 (27.8)	
Age (in years)									49.29 (14)
24–26	594 (10.8)	205 (9.4)	35 (10.0)	6 (19.6)	11 (8.8)	7 (14.4)	12 (12.7)	3 (2.8)	
27–29	3342 (51.6)	1089 (47.4)	196 (49.8)	26 (36.8)	44 (61.0)	34 (45.2)	93 (57.3)	27 (61.1)	
30–34	2689 (37.7)	883 (43.2)	290 (40.1)	24 (43.6)	24 (30.2)	23 (40.4)	52 (30.0)	15 (36.1)	
Current relationship status									565.33** (21)
No relationship	1239 (19.5)	592 (28.6)	126 (25.9)	19 (39.8)	25 (26.3)	17 (23.8)	33 (23.5)	15 (30.6)	
Married	3262 (46.7)	545 (22.7)	209 (40.8)	17 (32.6)	22 (30.8)	18 (22.5)	72 (44.0)	13 (30.9)	
Cohabiting	1191 (18.9)	441 (21.9)	82 (13.5)	13 (13.0)	17 (30.2)	16 (34.9)	35 (22.9)	4 (14.4)	
Dating	933 (14.8)	599 (26.8)	104 (19.8)	7 (14.7)	15 (12.8)	13 (18.9)	17 (9.6)	13 (24.1)	
Mother's education									524.02** (21)
Less than high school	604 (9.5)	324 (20.7)	59 (21.2)	6 (6.4)	6 (14.1)	5 (15.1)	22 (16.6)	5 (25.4)	
High school	2177 (34.1)	630 (33.0)	95 (13.7)	20 (50.8)	13 (22.9)	14 (20.7)	52 (35.6)	9 (21.2)	
Some college/	2138 (31.6)	681 (29.7)	133 (19.1)	17 (29.8)	21 (27.5)	16 (14.9)	54 (36.4)	15 (18.0)	

	Non-Hispanic White (n=6625; weighted %=78.6)	Non-Hispanic African American (n=2177; weighted %=15.2)	Non-Hispanic Asian (n=521; weighted %=2.8)	Non-Hispanic Native American (n=56; weighted % <1.0)	Non-Hispanic White/African American (n=79; weighted % <1.0)	Non-Hispanic White/Asian (n=64; weighted % <1.0)	Non-Hispanic White/Native American (n=157; weighted % 1.7)	Non-Hispanic African American/Native American (n=45; weighted % <1.0)	χ^2(df)
vocational and technical school									
College or more	1706 (24.8)	542 (16.6)	234 (46.0)	13 (13.1)	39 (35.4)	29 (49.2)	29 (11.4)	16 (35.4)	

Analysis sample (n=9724). All percentages are weighted for sampling probability; listed sample sizes are unweighted

Table 2

High-risk sexual behaviors by monoracial/multiracial groups, males (n=4558)

	Number sex partners lifetime M (SE)	Number sex partners before 18 M (SE)	Number sex partners past 12 months M (SE)	One-night stands % Yes (95% CI)	Concurrent sexual partners % Yes (95% CI)	Paid sex/was paid for sex % Yes (95% CI)
Non-Hispanic White	15.4 (0.58)	3.3 (0.23)	1.6 (0.05)	75.4 (73.24, 77.50)	14.5 (12.92, 16.18)	1.8 (1.15, 2.82)
Non-Hispanic African American	24.2 (2.29)	5.2 (0.64)	2.6 (0.16)	75.0 (71.58, 78.12)	31.9 (27.41, 36.82)	6.6 (4.74, 9.18)
Non-Hispanic Asian	7.0 (0.80)	1.1 (0.16)	1.4 (0.14)	66.0 (55.54, 75.16)	10.8 (5.82, 19.18)	4.4 (1.44, 12.59)
Non-Hispanic Native American	16.1 (4.30)	2.2 (0.33)	1.8 (0.29)	66.7 (36.45, 87.49)	14.0 (2.61, 49.79)	–
Non-Hispanic White/African American	23.3 (4.68)	3.2 (0.74)	2.8 (0.59)	75.8 (45.75, 92.09)	38.9 (21.04, 60.39)	10.8 (1.53, 48.32)
Non-Hispanic White/Asian	8.8 (2.06)	1.7 (0.53)	1.3 (0.31)	81.0 (54.59, 93.77)	26.9 (8.58, 59.11)	0.3 (0.01, 2.18)
Non-Hispanic White/Native American	16.2 (2.64)	3.7 (0.70)	1.4 (0.18)	62.8 (47.83, 75.65)	10.0 (4.01, 22.84)	–
Non-Hispanic African American/ Native American	10.6 (4.13)	2.4 (0.93)	2.6 (1.01)	43.3 (15.22, 76.41)	29.0 (8.69, 63.63)	–
	$F(7, 4550)$=16.51 ***	$F(7, 4550)$=11.74 ***	$F(7, 4550)$=19.12 ***	1.68 (7)	12.51 *** (7)	3.80 ** (7)

SE standard error, *CI* confidence interval, – cell size is too small to report

* $p<.05$;

** $p<.01$;

*** $p<.001$

Table 3

High-risk sexual behaviors by monoracial/multiracial groups, females (n=5166)

	Number sex partners lifetime M (SE)	Number sex partners before 18 M (SE)	Number sex partners past 12 Months M (SE)	One night stands % Yes (95% CI)	Concurrent sexual partners % Yes (95% CI)	Paid sex/was paid for sex % Yes (95% CI)
Non-Hispanic White	9.6 (0.30)	2.6 (0.13)	1.2 (0.04)	66.9 (64.94, 68.77)	9.0 (7.72, 10.55)	0.3 (0.18, 0.65)
Non-Hispanic African American	9.8 (0.55)	2.9 (0.30)	1.4 (0.08)	61.1 (55.70, 66.23)	13.0 (10.49, 16.02)	2.8 (1.72, 4.37)
Non-Hispanic Asian	8.3 (1.80)	1.7 (0.46)	1.6 (0.43)	64.8 (54.77, 73.64)	14.1 (7.40, 25.11)	–
Non-Hispanic Native American	11.4 (1.70)	3.9 (1.38)	1.4 (0.27)	84.5 (55.12, 96.01)	17.4 (6.98, 37.02)	–
Non-Hispanic White/African American	9.1 (1.73)	2.4 (0.50)	1.3 (0.19)	77.3 (55.13, 90.38)	11.3 (3.80, 28.97)	–
Non-Hispanic White/Asian	8.3 (1.84)	2.8 (0.81)	1.1 (0.23)	66.9 (40.44, 85.70)	12.0 (3.78, 32.19)	–
Non-Hispanic White/Native American	14.4 (1.99)	4.5 (1.10)	1.2 (0.12)	66.9 (55.05, 76.87)	7.8 (3.11, 18.02)	–
Non-Hispanic African American/Native American	8.4 (2.07)	1.2 (0.49)	1.7 (0.35)	43.7 (25.82, 63.41)	28.7 (10.35, 58.50)	–
	$F(7, 5158)$=3.76 ***	$F(7, 5158)$=3.78 ***	$F(7, 5158)$=2.09 *	1.90 (7)	2.52 ** (7)	3.03 ** (7)

SE standard error, CI confidence interval, – Cell size is too small to report

*
  p<.05;

**
  p<.01;

***
  p<.001

Table 4

Regression of high-risk sexual behaviors for multiracial groups compared with monoracial groups, males: National Longitudinal Study of Adult Health, Wave IV (2008–2009)

	Number sex partners lifetime		Number sex partners before 18		Number sex partners past 12 months	
	Coef (SE)		Coef (SE)		Coef (SE)	
	Unadjusted	Adjusted[a]	Unadjusted	Adjusted[a]	Unadjusted	Adjusted[a]
Non-Hispanic White (referent)						
Non-Hispanic White/African American	7.99 (4.67)	6.55 (4.71)	−0.04 (0.78)	−0.21 (0.84)	1.17* (0.59)	1.09* (0.58)
Non-Hispanic White/Asian	−6.58** (2.15)	−7.49** (2.08)	−1.63** (0.59)	−1.24* (0.49)	−0.25 (0.31)	−0.33 (0.24)
Non-Hispanic White/Native American	0.85 (2.66)	0.84 (2.72)	0.44 (0.72)	0.01 (0.69)	−0.21 (0.19)	−0.17 (0.17)
Non-Hispanic African American (referent)						
Non-Hispanic African American/White	−0.80 (5.39)	−1.46 (5.37)	−1.95* (0.97)	−1.66 (1.07)	0.18 (0.63)	0.12 (0.61)
Non-Hispanic African American/Native American	−13.52** (4.92)	−13.95** (4.99)	−2.77* (1.13)	−3.43* (1.35)	0.01 (1.03)	0.12 (1.03)
Non-Hispanic Asian (referent)						
Non-Hispanic Asian/White	1.78 (2.19)	0.47 (2.31)	0.52 (0.55)	0.47 (0.50)	−0.10 (0.34)	−0.18 (0.29)
Non-Hispanic Native American (referent)						
Non-Hispanic Native American/White	0.15 (4.90)	−0.51 (4.92)	1.53* (0.77)	1.58* (0.76)	−0.45 (0.34)	−0.59 (0.35)
Non-Hispanic Native American/African American	−5.43 (5.99)	−7.29 (6.07)	0.22 (0.99)	−0.41 (1.22)	0.77 (1.06)	0.68 (1.05)

	One night stands		Concurrent sexual partners		Paid sex/was paid for sex	
	OR (95% CI)		OR (95% CI)		OR (95% CI)	
	Unadjusted	Adjusted[a]	Unadjusted	Adjusted[a]	Unadjusted	Adjusted[a]
Non-Hispanic White (referent)						
Non-Hispanic White/African American	1.02 (0.27, 3.87)	1.00 (0.25, 3.91)	3.77** (1.59, 8.94)	3.65** (1.41, 9.41)	6.54* (0.84, 9.83)	6.74* (0.85, 9.58)
Non-Hispanic White/Asian	1.38 (0.39, 4.95)	1.34 (0.38, 4.75)	2.18 (0.55, 8.67)	2.24 (0.59, 8.53)	0.19 (0.03, 1.30)	0.20 (0.03, 1.40)
Non-Hispanic White/Native American	0.55* (0.29, 1.03)	0.56 (0.30, 1.04)	0.66 (0.25, 1.75)	0.66 (0.26, 1.65)	–	–
Non-Hispanic African American (referent)						
Non-Hispanic African American/White	1.04 (0.29, 3.80)	1.00 (0.26, 3.77)	1.36 (0.54, 3.40)	1.37 (0.51, 3.69)	1.70 (0.24, 12.24)	1.87 (0.26, 13.39)
Non-Hispanic African American/Native American	0.25* (0.06, 1.11)	0.27* (0.07, 1.11)	0.87 (0.21, 3.64)	0.94 (0.24, 3.71)	–	–
Non-Hispanic Asian (referent)						

| | Number sex partners lifetime | | Number sex partners before 18 | | Number sex partners past 12 months | |
| | Coef (SE) | | Coef (SE) | | Coef (SE) | |
	Unadjusted	Adjusted[a]	Unadjusted	Adjusted[a]	Unadjusted	Adjusted[a]
Non-Hispanic Asian/White	2.19 (0.58, 8.18)	2.15 (0.57, 8.05)	3.04 (0.71, 13.07)	3.02 (0.73, 12.51)	0.08[*] (0.01, 0.65)	0.08[*] (0.01, 0.64)
Non-Hispanic Native American (referent)						
Non-Hispanic Native American/White	0.84 (0.21, 3.32)	0.80 (0.19, 3.31)	0.68 (0.09, 5.32)	0.59 (0.08, 4.57)	–	–
Non-Hispanic Native American/African American	0.38 (0.06, 2.59)	0.38 (0.06, 2.53)	2.50 (0.25, 25.13)	2.23 (0.23, 21.90)	–	–

SE standard error, *CI* confidence interval. Adjusted for gender, education, age, current relationship status, and mother's education. – Cell size is too small to report

*** *p*<.001

* *p*<.05;

** *p*<.01;

Table 5

Regression of high-risk sexual behaviors for multiracial groups compared with monoracial groups, females: National Longitudinal Study of Adult Health, Wave IV (2008–2009)

	Number sex partners lifetime Coef (SE)		Number sex partners before 18 Coef (SE)		Number sex partners past 12 months Coef (SE)		One night stands OR (95% CI)		Concurrent sexual partners OR (95% CI)		Paid sex/was paid for sex OR (95% CI)	
	Unadjusted	Adjusted[a]	Unadjusted	Adjusted[a]	Unadjusted	Adjusted[a]	Unadjusted	Adjusted[a]	Unadjusted	Adjusted[a]	Unadjusted	Adjusted[a]
Non-Hispanic White (referent)												
Non-Hispanic White/African American	−0.56 (1.76)	−0.49 (1.73)	−0.19 (0.52)	−0.26 (0.57)	0.08 (0.19)	0.08 (0.19)	1.68 (0.60, 4.72)	1.69 (0.59, 4.85)	1.28 (0.38, 4.28)	1.22 (0.33, 4.56)	–	–
Non-Hispanic White/Asian	−1.39 (1.86)	−1.52 (2.02)	0.15 (0.82)	0.25 (0.79)	−0.09 (0.23)	−0.17 (0.24)	1.00 (0.33, 3.00)	1.00 (0.32, 3.09)	1.37 (0.39, 4.87)	1.28 (0.37, 4.43)	–	–
Non-Hispanic White/Native American	4.74[*] (2.02)	4.59[*] (1.98)	1.85 (1.11)	1.58 (1.11)	−0.01 (0.12)	−0.01 (0.13)	1.00 (0.60, 1.67)	0.97 (0.57, 1.66)	0.85 (0.31, 2.27)	0.78 (0.28, 2.19)	–	–
Non-Hispanic African American (referent)												
Non-Hispanic African American/White	−0.75 (1.88)	−0.31 (1.86)	−0.43 (0.61)	−0.31 (0.69)	−0.10 (0.23)	−0.04 (0.23)	2.16[*] (0.89, 5.26)	2.27[*] (0.91, 5.63)	0.85 (0.24, 2.94)	0.92 (0.24, 3.48)	–	–
Non-Hispanic African American/Native American	−1.40 (2.06)	−1.17 (1.95)	−1.68[**] (0.58)	−1.42[*] (0.58)	0.25 (0.37)	0.28 (0.33)	0.49 (0.22, 1.13)	0.51 (0.22, 1.17)	2.70 (0.78, 9.29)	3.10 (0.94, 10.25)	–	–
Non-Hispanic Asian (referent)												
Non-Hispanic Asian/White	−0.01 (2.46)	−0.36 (2.54)	1.06 (0.96)	0.98 (0.91)	−0.52 (0.47)	−0.62 (0.47)	1.10 (0.38, 3.21)	1.08 (0.36, 3.24)	0.83 (0.21, 3.24)	0.70 (0.18, 2.71)	–	–
Non-Hispanic Native American (referent)												
Non-Hispanic Native American/White	2.94 (3.21)	3.20 (3.29)	0.57 (1.98)	0.48 (2.08)	−0.16 (0.22)	−0.11 (0.29)	0.37 (0.08, 1.78)	0.38 (0.08, 1.82)	0.40 (0.09, 1.80)	0.40 (0.08, 2.04)	–	–
Non-Hispanic Native American/African American	−3.01 (2.68)	−2.73 (2.65)	−2.72[*] (1.46)	−2.46 (1.52)	−0.28 (0.35)	0.31 (0.35)	0.14[*] (0.03, 0.76)	0.15[*] (0.03, 0.78)	1.92 (0.39, 9.55)	2.10 (0.43, 10.24)	–	–

SE standard error, *CI* confidence interval. Adjusted for gender, education, age, current relationship status, and mother's education. – Cell size is too small to report

[***] p<.001

[*] p<.05;

[**] p<.01;