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Racial Differences in Hopelessness as a Risk Factor for a Nearly Lethal Suicide Attempt

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Hopelessness is associated with suicide. Hopelessness has been associated with life experiences, social-environmental, and biological factors. Racial differences exist in these factors and in coping behaviors. Better understanding racial differences in hopelessness and suicide may result in more effective interventions to slow the increasing Black American suicide rate. Data from a case-control study of nearly lethal suicide attempters were analyzed. Interaction results from logistic regression suggest that the effect of hopelessness on a nearly lethal suicide attempt may differ for Black and White Americans. Hopelessness was strongly associated with a nearly lethal suicide attempt for Blacks and Whites, but the odds were greater for Blacks than Whites. Interventions may need to be adjusted to address the difference.

Keywords: *suicide; Blacks; race; hopelessness*

Each year approximately 10,000 persons aged 15 to 34 years commit suicide (National Center for Health Statistics, 1983-1997), and it has been estimated that for each completed suicide, there are 18 attempts (Moscicki, 1995). Since 1980, the suicide rate among young Black Americans, referred

to here as Blacks, aged 10 to 19 years has increased faster than the rate among young White Americans, referred to here as Whites (Centers for Disease Control and Prevention [CDC], 1998; Shaffer, Gould, & Hicks, 1994). Blacks have historically had lower suicide rates, but in 1998, high-school-aged Black youths were as likely to attempt suicide as White youths were (CDC, 1999). Suicide among young Blacks has not been recognized as an important public health problem. However, the increasing number of completed suicides among young Blacks and the narrowing gap in the suicide rate among young Whites and Blacks (CDC, 1998) suggest the need to better understand the factors associated with suicidal behavior and whether these factors differ for young Whites and Blacks.

A number of factors have been associated with suicidal behavior among the young, including depression, hopelessness, substance abuse, low self-esteem, access to lethal suicide methods, breakdown of the family, impulsive and aggressive behavior, a family history of suicide, a prior suicide attempt, and social isolation (Garland & Zigler, 1993). Hopelessness has been identified as a more important risk factor for suicidal behavior than depression (Beck, Steer, Beck, & Newman, 1993; Lynd-Stevenson, 1997; MacLeod, Rose, Mark, & Williams, 1993; Shaffer et al., 1994). Although hopelessness has been studied in the general population, it has not been studied much in Blacks nor has it been the focus of suicide prevention and treatment strategies (Beck et al., 1993; Beck & Lester, 1973; Weishaar & Beck, 1992). Furthermore, given the differences in the social environments of young Blacks and Whites, we might expect the risk of suicide because of hopelessness to be greater for Blacks than for Whites (Kaslow et al., 2004). Reported race differences in coping behaviors may also influence the risk of suicide and feelings of hopelessness (Mapp & Hudson, 1997; Post & Weddington, 1997).

Hopelessness has been defined as a system of pervasive negative expectations (Beck, Weissman, Lester, & Trexler, 1974). Indicators of hopelessness include uncertainty about the future, the expectation of future unhappiness, and low expectations about reaching one's goals (American Psychiatric Association, 1994, pp. 317-332; Beck et al., 1974). This system of pervasive negative expectations about the future may be tied to the individual's social environment and life experiences. Exposure to social environmental factors, such as poverty, unemployment, prejudice and discrimination, differs for young Blacks and Whites; this difference may influence their expectations for achieving socially positive goals (e.g., a good education, good job; Gibbs, 1997). These differences in life experiences by race (particularly in regard to prejudice and discrimination) may cause Black youths to perceive their life chances differently (Thompson & Hickey, 1994) than White youths do and to

adopt different strategies for coping with life events, which may increase their risk of suicidal behavior.

Given these differences in the social environments of young Blacks and Whites, we wanted to explore the relationship between hopelessness, race, and suicidal behavior. To do so, we examined data from a population-based case-control study of nearly lethal suicide attempts. First, we sought to determine whether the prevalence of hopelessness differed by race. We hypothesized that hopelessness would be more prevalent among young Blacks than young Whites. Second, we addressed whether the effect of hopelessness on the risk of a nearly lethal suicide attempt differed by race. We hypothesized that hopelessness would have a stronger effect on the suicidal behavior of young Blacks than young Whites. Finally, we asked whether when controlling for demographic, emotional-loss, and mental-health factors, hopelessness was independently associated with the risk of a nearly lethal suicide attempt in young Blacks and young Whites. We hypothesized that hopelessness would be associated with the risk of a nearly lethal suicide attempt among both Blacks and Whites when controlling for these potential confounders, which are also referred to here as independent variables.

METHOD

PARTICIPANTS

We defined “a nearly lethal suicide attempt” as one in which the individual would probably have died without emergency medical attention or one in which a method with a high case-fatality ratio (e.g., firearm, hanging; Potter et al., 1998) was employed. We obtained data from a population-based case-control study of nearly lethal suicide attempts within Harris County, Texas. With Institutional Review Board approval, case and control participants were paid \$15.00 for their completed interview. All participants consented to the interview.

Case participants were defined as nearly lethal suicide attempters seen at Ben Taub, Hermann, or Lyndon B. Johnson (LBJ) hospitals between November 1992 and September 1995. Ben Taub is a level-1 trauma center, whereas Hermann and LBJ are level-2 trauma centers. Level-1 trauma centers are hospitals with 1,200 admissions per year that have an operating room and surgical team immediately available, although in level-2 hospitals an operating room must be available when needed in a timely manner (American College of Surgeons Committee on Trauma, 1998). Case participants were

residents of Harris County, Texas, aged 13 to 34 years that had completed an in-person interview.

Control participants were identified during the same time period as case participants. Eligible control participants were residents of Harris County, Texas, aged 13 and 34 years and had the same zip code as case participants. Eligible control participants completed an in-person interview. A random-digit-dial (RDD) telephone survey was used to identify 857 control participants; 513 (60%) completed the in-person interview. Interviews were conducted in the participant's home or workplace or in a public location.

SAMPLE

Because these analyses focus on the potential difference in the effect of hopelessness for young Blacks and young Whites, only non-Hispanic Black and non-Hispanic White respondents were included. The 500 participants in these analyses were aged 13 to 34 years, and most (51%) were aged 25 to 34 years. Of the 500 participants, 173 (35%) were Black and 327 (65%) were White. Of the 105 cases, 55 (52%) were Black and 50 (48%) were White, and for control participants, 118 (30%) were Black and 277 (70%) were White. Among Whites and Blacks, most case participants were male (64% and 55%, respectively). Similarly, for Whites and Blacks, most control participants were female (55% and 64%, respectively).

APPARATUS

The Self-Inflicted Injury Severity Form (SIISF) was used to identify case participants. The SIISF is reliable and valid in identifying the severity of a self-inflicted injury, and its design and collection processes are described in detail elsewhere (Potter et al., 1998). Of the case participants identified, 246 were nearly lethal suicide attempts; 153 (62%) completed the in-person interview. Eligible case participants were representative of ineligible case participants on race/ethnicity (i.e., Black non-Hispanic, White non-Hispanic, White Hispanic) but were not representative on age or marital status (from an unpublished paper). With the permission of the case participant and the physician, participants were interviewed within 30 days of the injury. Most of the interviews occurred in the hospital (78%); the remainder were administered in the home (12%) or other locations (10%).

DESIGN

Case-control (i.e., nearly lethal suicide attempter or not) status was the dependent variable for this analysis. Here, cases were defined as persons

meeting the criterion for a nearly lethal suicide attempt as described in the Participants section of this article. Controls were persons identified at the same time, in the same age range, and living in the same zip code as case participants described in the Participants section.

Hopelessness and a number of other factors that could confound the relationship between hopelessness and a nearly lethal suicide attempt were included as independent variables in this analysis. The other independent variables included in the statistical models as control variables were depression, sex of participant, being an alcoholic, the nonsuicidal death of a close relation in the past 12 months, and the end of a romantic relationship within the past 12 months (see Tables 1a & 1b). These variables were included as independent dichotomous variables (see Tables 1a & 1b). Education, marital status, and median income were analyzed as categorical variables. Median income was defined by the participant's zip code.

Beck's 20-item Hopelessness Scale was used to measure hopelessness and has shown strong validity and reliability within the general population (Beck, Weissman, Lester, & Trexler, 1974). Response options were *true* or *false*. Scores ranged from 0 to 20. Scores of 9 or greater indicated a hopeless state. For this sample, Cronbach's alpha was estimated for Beck's Hopelessness Scale (Blacks = .90, Whites = .90), which suggests a high degree of internal consistency.

The Centers for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was used to measure acute depressive symptoms. Participants report on symptoms of depression experienced within the past week. The CES-D is a 20-item scale with response options *rarely/none*, *some/little*, *occasionally/moderate*, *most/all*, and *refused*. It has assigned values of 0 to 8, with scores ranging from 0 to 60. Values were coded 1 or 2. Scores of 16 and greater indicated depressed symptoms. Studies have shown the scale to be valid and reliable in clinical and general populations (Radloff, 1977). For this study, Cronbach's alpha showed that this scale had a high degree of internal consistency for both Blacks and Whites, with reliability measures of .92 and .94, respectively.

The Veterans Alcohol Screening Test (VAST; Selzer, 1971) was used to construct an indicator of alcoholism. The VAST was designed to differentiate between past and current alcoholism, whereas the Michigan Alcohol Screening Test (MAST; Magruder-Habib, Harris, & Fraker, 1982) does not differentiate. This scale was developed and is commonly used with persons from the general population. We did not conduct additional analysis of the internal consistency of the VAST. The items that make up the VAST were modified from the MAST items and use yes and no response options, with scoring from 0 to 5 or greater. VAST items, unlike the MAST, include a time frame for each suggested period of alcohol use (Magruder-Habib

TABLE 1A
Risk Factors by Case-Control Status and Race
for Nearly Lethal Suicide Attempts,
White Americans

<i>Risk Factor</i>	<i>Cases (n = 50)</i>	<i>Controls (n = 277)</i>	<i>p Value^a</i>
	<i>% (n)</i>	<i>% (n)</i>	
Hopeless			
Yes	65 (32)	11 (30)	.001
No	35 (17)	89 (247)	
Depressed			
Yes	84 (42)	27 (75)	.001
No	16 (8)	73 (201)	
Sex			
Male	64 (32)	45 (124)	.012
Female	36 (18)	55 (153)	
Education			
LT-HS student	16 (8)	22 (61)	.001
LT-HS nonstudent	31 (15)	8 (21)	
HS nonstudent	20 (10)	12 (33)	
GT-HS student	33 (16)	58 (162)	
Marital status			
Never married	64 (32)	67 (186)	.306
No longer married ^b	16 (8)	9 (25)	
Married	20 (10)	24 (66)	
Median income			
\$0 to \$20,000	48 (24)	17 (48)	.003
\$20,001 to \$30,000	20 (10)	26 (73)	
\$30,001-plus	32 (16)	57 (156)	
Alcoholic			
Yes	49 (24)	14 (38)	.001
No	51 (25)	86 (238)	
Non-suicidal death of close relation			
Yes	30 (15)	33 (92)	.656
No	70 (35)	67 (185)	
End of romantic relationship			
Yes	48 (24)	32 (88)	.026
No	52 (26)	68 (189)	

NOTE: For White Americans, missing data were recorded for hopelessness, depression, and education ($n = 1$) and for alcohol use ($n = 2$). LT-HS student = less than high school diploma but a student; LT-HS nonstudent = less than high school diploma but not a student; HS nonstudent = having a high school diploma and not a student; GT-HS student = greater than a high school diploma and a student.

a. Pearson's chi-square test.

b. This includes the separated, widowed, and divorced.

TABLE 1B
Risk Factors by Case-Control Status
and Race for Nearly Lethal Suicide
Attempts, Black Americans

<i>Risk Factor</i>	<i>Cases (n = 55)</i>		<i>Controls (n = 118)</i>		<i>p Value^a</i>
	<i>%</i>	<i>(n)</i>	<i>%</i>	<i>(n)</i>	
Hopeless					
Yes	69	(38)	4	(5)	.001
No	31	(17)	96	(113)	
Depressed					
Yes	85	(47)	38	(44)	.001
No	15	(8)	62	(73)	
Sex					
Male	55	(30)	36	(43)	.025
Female	45	(25)	64	(75)	
Education					
LT-HS student	24	(13)	26	(31)	.001
LT-HS nonstudent	36	(20)	8	(10)	
HS nonstudent	29	(16)	14	(16)	
GT-HS student	11	(6)	52	(61)	
Marital status					
Never married	69	(38)	65	(77)	.126
No longer married ^b	22	(12)	14	(17)	
Married	9	(5)	21	(24)	
Median income					
\$0 to \$20,000	71	(39)	40	(47)	.001
\$20,001 to \$30,000	15	(8)	24	(28)	
\$30,001-plus	15	(8)	36	(42)	
Alcoholic					
Yes	31	(17)	12	(14)	.002
No	69	(37)	88	(103)	
Non-suicidal death of close relation					
Yes	40	(22)	44	(52)	.615
No	60	(33)	56	(66)	
End of romantic relationship					
Yes	51	(28)	42	(50)	.293
No	49	(27)	58	(68)	

NOTE: Among Blacks, missing data were recorded for median income, depression, and alcohol use ($n = 2$). LT-HS student = less than high school diploma but a student; LT-HS nonstudent = less than high school diploma but not a student; HS nonstudent = having a high school diploma and not a student; GT-HS student = greater than a high school diploma and a student.

a. Pearson's chi-square test.

b. This includes the separated, widowed, and divorced.

et al., 1982). The VAST has demonstrated higher validity scores than the MAST in identifying alcoholism. The VAST is considered a valid measure of alcoholism (Magruder-Habib et al., 1982). For this analysis, a score of 5 or greater on the VAST indicated alcoholism (Selzer, 1971). The algorithm to compute the VAST score was the same as the one used to calculate the MAST score (Selzer, 1971).

PROCEDURES

This analysis examines the likelihood that a participant would have been a nearly lethal suicide attempter. The p values for crude odds ratios (ORs) and corresponding 95% confidence intervals (CIs) were estimated using SAS software for dichotomous variables and SUDAAN for multiple-level variables. Parameter estimates will not be reported. Adjusted models were analyzed using SUDAAN. Odds ratios are an appropriate measure for describing the results. Potential confounders or independent variables identified through the literature and included for analysis were hopelessness, depression, sex of respondent, alcoholism, nonsuicidal death of a close relation in the past 12 months, end of a romantic relationship in the past 12 months, years of completed education or education level, marital status, and median income. For all analyses, p values $\leq .05$ were considered statistically significant. To address the first question of whether the prevalence of hopelessness differed by race, we used Pearson's chi-square test to assess the association between hopelessness and case-control status among race groups. The prevalence of each independent variable or potential confounder is reported in Tables 1a and 1b.

To evaluate whether the effect of hopelessness differed by race, we estimated the effect of the interaction between hopelessness and race, adjusting for all potential confounders or variables, in a combined race model. We included all variables identified as potential confounders in a stepwise manner along with the Race \times Hopelessness interaction term in the model. To obtain the OR for Blacks using the interaction term, we recoded the Race \times Hopelessness interaction term and again generated the associated ORs and 95% confidence intervals (CIs) using logistic regression in SAS. We assessed the significance of the interaction terms with a likelihood-ratio test using SAS (see Table 2). We estimated a full model and a simple model to conduct a likelihood-ratio test (see Table 2).

Next, we conducted race-specific bivariable analyses to assess the likelihood of a respondent being a case participant versus a control participant for hopelessness and all other potential confounders (see Table 3) within a specific race group as suggested by the interaction results. We were able to assess the independent effect of each variable in this manner. We then

TABLE 2
Adjusted Odds Ratios (ORs) and 95% Confidence
Intervals (CIs) for Risk of a Nearly Lethal Suicide
Attempt With Race × Hopelessness Interaction

<i>Risk Factor</i>	<i>Adjusted OR (95% CI)</i>
Depressed	<i>p</i> = .008
Yes	2.82 (1.32, 6.00)
No	1.00
Sex	<i>p</i> = .017
Male	2.29 (1.19, 4.46)
Female	1.00
Education	<i>p</i> = .137
LT-HS student	1.79 (0.75, 4.29)
LT-HS nonstudent	2.52 (1.03, 6.14)
HS nonstudent	2.59 (1.07, 6.25)
GT-HS student	1.00
Marital status	<i>p</i> = .924
Never married	0.82 (0.33, 2.08)
No longer married ^a	0.88 (0.27, 2.87)
Married	1.00
Median income	<i>p</i> = .005
\$0 to \$20,000	2.96 (1.42, 6.15)
\$20,001 to \$30,000	1.06 (0.44, 2.58)
\$30,001-plus	1.00
Alcoholic	<i>p</i> = .007
Yes	2.58 (1.26, 5.24)
No	1.00
Nonsuicidal death of close relation	<i>p</i> = .603
Yes	0.84 (0.43, 1.65)
No	1.00
Very upsetting end to a romance	<i>p</i> = .228
Yes	1.51 (0.80, 2.88)
No	1.00
Race × Hopelessness	<i>p</i> = .059 ^b
Whites	
Hopeless	6.54 (2.71, 15.78)
Not hopeless	1.00
Blacks	
Hopeless	26.31 (7.35, 94.53)
Not hopeless	1.00

NOTE: *p* value = Wald chi-square test. In the adjusted model, each odds ratio (OR) is adjusted for the other variables in the model (i.e., sex, educational level, marital status, median income, alcoholism, the nonsuicidal death of someone close, and the very upsetting end to a romantic relationship). The *p* value for interaction term is assessed with a likelihood ratio test.

a. This includes the separated, widowed, and divorced.

b. The *p* value for interaction term was assessed with a likelihood ratio test.

TABLE 3
Unadjusted and Adjusted ORs and 95% CIs for Risk of a Nearly Lethal Suicide Attempt by Race, White Americans

<i>Risk Factor</i>	<i>Unadjusted OR (95% CI)</i>	<i>Adjusted OR (95% CI)</i>
Hopeless	<i>p</i> = .000	<i>p</i> = .000
Yes	15.50 (7.68, 31.26)	7.10 (2.73, 18.46)
No	1.00	1.00
Depressed	<i>p</i> = .000	<i>p</i> = .033
Yes	14.07 (6.30, 31.42)	3.34 (1.16, 9.63)
No	1.00	1.00
Sex	<i>p</i> = .014	<i>p</i> = .164
Male	2.19 (1.17, 4.10)	1.84 (0.78, 4.33)
Female	1.00	1.00
Education	<i>p</i> = .000	<i>p</i> = .390
LT-HS student	1.33 (0.54, 3.27)	2.54 (0.79, 8.24)
LT-HS nonstudent	7.23 (3.12, 16.77)	1.09 (0.34, 3.51)
HS nonstudent	3.07 (1.28, 7.37)	2.00 (0.65, 6.15)
GT-HS student	1.00	1.00
Marital status	<i>p</i> = .317	<i>p</i> = .361
Never married	1.14 (0.53, 2.44)	0.43 (0.14, 1.34)
No longer married ^a	2.11 (0.75, 5.98)	0.83 (0.19, 3.58)
Married	1.00	1.00
Median income	<i>p</i> = .000	<i>p</i> = .074
\$0 to \$20,000	4.88 (2.39, 9.94)	3.34 (1.23, 9.04)
\$20,001 to \$30,000	1.34 (0.58, 3.09)	1.39 (0.49, 3.95)
\$30,001-plus	1.00	1.00
Alcoholic	<i>p</i> = .000	<i>p</i> = .002
Yes	6.03 (3.11, 11.61)	3.56 (1.50, 8.46)
No	1.00	1.00
Nonsuicidal death of close relation	<i>p</i> = .656	<i>p</i> = .333
Yes	0.86 (0.45, 1.66)	0.63 (0.25, 1.57)
No	1.00	1.00
Very upsetting end to a romance	<i>p</i> = .028	<i>p</i> = .278
Yes	1.98 (1.08, 3.65)	1.63 (0.71, 3.74)
No	1.00	1.00

NOTE: *p* value = Wald chi-square test. In the adjusted model, each odds ratio (OR) is adjusted for the other variables (i.e., sex, educational level, marital status, median income, alcoholism, the nonsuicidal death of someone close, and the very upsetting end to a romantic relationship).
 a. This includes the separated, widowed, and divorced.

estimated race-specific adjusted models to assess the association between hopelessness while controlling for all potential confounders that were significant in the bivariable analyses or that had been associated with the risk of being a suicide attempter (case) in the literature (see Table 3) for each

race group. We used logistic regression in SUDAAN to generate the ORs and associated 95% CIs. We assessed the significance of hopelessness and each potential confounder by using the Wald chi-square test.

Although case participants with no home telephones were included in these analyses, the method used to select control participants (RDD) required the presence of a home telephone. To see whether this difference affected our results, we did a sensitivity analysis by removing case participants with no telephones (13 Blacks, or 24%; 7 Whites, or 14%). ORs for the three models were then re-estimated using the methods described above.

RESULTS

Tables 1a and 1b show the overall distribution of participants by case-control status and for each potential confounder. Results from Pearson's chi-square test showed that the prevalence of hopelessness did not differ significantly by race among case participants ($p = .68$); the prevalence was 69% for Blacks and 65% for Whites. The relationship did differ significantly for controls ($p = .04$); the prevalence of hopelessness was greater for Whites (11%) than for Blacks (4%). Tables 1a and 1b show the prevalence of each risk factor or independent variable by race and case-control status.

The significance of the Race \times Hopelessness interaction term approached statistical significance with a likelihood ratio test of $p = .059$, suggesting that the risk of a nearly lethal suicide attempt is stronger for young, hopeless Blacks than for hopeless Whites (see Table 2).

Tables 3 and 4 show the results of the unadjusted and adjusted race-specific logistic regression models. Bivariable analysis showed hopelessness to be strongly associated with the risk of a nearly lethal attempt. When depression alone was added to the model containing only hopelessness, hopelessness remained most strongly and significantly associated with the risk of a nearly lethal attempt for both Blacks and Whites. However, the effect of hopelessness did decrease slightly. When we controlled for other potential confounders, hopelessness was independently associated with the risk of a nearly lethal suicide attempt for both Blacks and Whites.

For Blacks, hopelessness was more strongly associated with a nearly lethal suicide attempt than any other risk factor (OR = 30.2; 95% CI: 6.8-134.3; $p = .000$), whereas the OR for depression approached but did not attain statistical significance (OR = 2.9; 95% CI: 0.9-9.9; $p = .076$). The OR for hopelessness was about 10 times that of depression (see Table 4).

Whites reporting hopelessness were about seven times more likely to attempt a nearly lethal suicide than were non-hopeless Whites (OR = 7.1;

TABLE 4
Unadjusted and Adjusted ORs and 95% CIs for Risk of a Nearly Lethal Suicide Attempt by Race, Black Americans

<i>Risk Factor</i>	<i>Unadjusted OR (95% CI)</i>	<i>Adjusted OR (95% CI)</i>
Hopeless	<i>p</i> = .000	<i>p</i> = .000
Yes	50.52 (17.40, 146.66)	30.22 (6.80, 134.31)
No	1.00	1.00
Depressed	<i>p</i> = .000	<i>p</i> = .076
Yes	9.75 (4.21, 22.58)	2.93 (0.87, 9.86)
No	1.00	1.00
Sex	<i>p</i> = .026	<i>p</i> = .008
Male	2.09 (1.09, 4.02)	4.57 (1.38, 15.14)
Female	1.00	1.00
Education	<i>p</i> = .000	<i>p</i> = .076
LT-HS student	4.26 (1.47, 12.34)	1.59 (0.35, 7.11)
LT-HS nonstudent	20.33 (6.54, 63.22)	8.36 (1.68, 41.67)
HS nonstudent	10.17 (3.42, 30.27)	4.46 (0.92, 21.77)
GT-HS student	1.00	1.00
Marital status	<i>p</i> = .141	<i>p</i> = .493
Never married	2.37 (0.84, 6.72)	2.36 (0.32, 17.44)
No longer married ^a	3.39 (1.00, 11.45)	1.23 (0.12, 12.33)
Married	1.00	1.00
Median income	<i>p</i> = .001	<i>p</i> = .019
\$0 to \$20,000	4.36 (1.83, 10.39)	4.03 (1.07, 15.18)
\$20,001 to \$30,000	1.50 (0.50, 4.48)	0.70 (0.11, 4.59)
\$30,001-plus	1.00	1.00
Alcoholic	<i>p</i> = .003	<i>p</i> = .227
Yes	3.38 (1.51, 7.55)	2.29 (0.57, 9.12)
No	1.00	1.00
Nonsuicidal death of close relation	<i>p</i> = .615	<i>p</i> = .745
Yes	0.85 (0.44, 1.63)	1.18 (0.39, 3.54)
No	1.00	1.00
Very upsetting end to a romance	<i>p</i> = .295	<i>p</i> = .899
Yes	1.41 (0.74, 2.69)	1.08 (0.34, 3.43)
No	1.00	1.00

NOTE: *p* value = Wald chi-square test. In the adjusted model, each odds ratio (OR) is adjusted for the other variables (i.e., sex, educational level, marital status, median income, alcoholism, the nonsuicidal death of someone close, and the very upsetting end to a romantic relationship). a. This includes the separated, widowed, and divorced.

95% CI: 2.7-18.5; *p* = .000). Although depression was significantly associated with an increased risk (OR = 3.3; 95% CI: 1.16-9.63; *p* = .033), the odds ratio for hopelessness was more than twice that for depression (see Table 3).

In the sensitivity analysis in which we removed case participants without home telephones, the test of the Race \times Hopelessness interaction, for the combined model, showed the association between hopelessness and the risk for a nearly lethal suicide attempt to be stronger for Blacks than for Whites (likelihood ratio test of $p = .027$). In the race-specific models, hopelessness remained the factor most strongly associated with a nearly lethal suicide attempt among Blacks (OR = 50.1; 95% CI: 9.3-268.1; $p = .000$) and among Whites (OR = 7.7; CI: 2.8-21.3; $p = .000$). However, the effect of depression was reduced for both groups. Among Blacks, the effect of depression was not significant (OR = 1.9; 95% CI: 0.47-7.50; $p = .369$), whereas the effect of depression for Whites approached but did not attain statistical significance (OR = 2.8; 95% CI: 0.93-8.50; $p = .066$).

DISCUSSION

We found that hopelessness is a stronger risk factor for a nearly lethal suicide attempt for young Blacks compared to young Whites. We found these results despite the fact that the prevalence of hopelessness was not greater among Blacks than Whites. In fact, among control participants, Whites were significantly more likely to experience hopelessness than Blacks. Although not all studies report this strong relationship between hopelessness and suicide risk, our population of nearly lethal suicide attempters as opposed to persons expressing thoughts of suicide (ideation) may be more representative of persons completing suicide and thus more affected by hopelessness even when depression is controlled. Our results are consistent with some prior research in that we demonstrated a strong association between hopelessness and suicidal behavior for Blacks and Whites (Beck, 1986; Beck et al., 1993; Garland & Zigler, 1993).

Our finding that Blacks in the general population did not report a higher prevalence of hopelessness than Whites was surprising given that Blacks may be more likely to have negative life experiences (e.g., prejudice and discrimination, poor employment and educational opportunities) that may differentially affect their future expectations. A possible explanation for this finding is that hopelessness may have a different meaning for Blacks and Whites or that there may be racial differences in the etiology of hopelessness. Because of differing social environments and life experiences, Blacks may interpret the Hopelessness Scale items differently than do Whites. For example, the magnitude of a respondent's response on a scale item like "The future seemed vague and uncertain to me" (Beck et al., 1974) cannot be assessed. The intensity of feelings toward a scale item may

differ by respondent and by the respondent's race. If the intensity of feelings differs by respondents or by race group, the effect of hopelessness could be greater in one group even when the prevalence of hopelessness is lower. A lower prevalence of hopelessness may not necessarily reflect a lower risk.

One potential explanation for why hopelessness is a stronger risk factor for a nearly lethal suicide attempt for Blacks than Whites may have to do with cultural differences in coping responses to stressful events (Mapp & Hudson, 1997; Post & Weddington, 1997; Wagner, Mongan, Hamrick, & Hendrick, 1995). Coping responses to similar stressful events appear to vary by culture (Greco, Brickman, & Routh, 1996; Post & Weddington, 1997; Wagner et al., 1995). These differences may be related to differing life experiences for young Blacks and Whites that may require different coping strategies. Two common strategies for coping are emotion-focused and problem-focused (Lazarus & Folkman, 1984). There is some evidence that Blacks are more likely to engage in emotion-focused strategies (Plummer & Slane, 1996; Rodrigue, 1997; Sistler & Moore, 1996) that center around denying the problem, hoping the problem will go away, or looking for a miracle (Thoits, 1995). This approach has been associated with an increased risk of negative health outcomes (e.g., suicide) and depression (Unger et al., 1998). Blacks may be more likely than Whites to adopt emotion-focused strategies, which may be associated with prolonged feelings of hopelessness, thus increasing the likelihood of suicidal behavior. Whites may be more likely to adopt problem-focused strategies, which are more proactive methods involving using one's resources to overcome problems, developing methods to resolve issues, and working to resolve these issues (Unger et al., 1998). Using this coping strategy indicates some degree of hopefulness and potential for overcoming the stressor. As a result, Whites may be less affected by feelings of hopelessness because problem-focused methods may help them to remove or overcome the factors that could lead to long-term feelings of hopelessness. We were unable to directly examine the effect of racial differences in coping strategies in this study.

Adoption of coping strategies may be related to the differing social environments and the ability to access resources for Blacks and Whites. Growing up in the United States presents different experiences for Blacks and Whites in ways that could differentially influence the resources available to Blacks (Thompson & Hickey, 1994) to manage or overcome feelings of hopelessness (e.g., job and educational opportunities, access to mental health professionals). Suppression behavior to cope with negative life experiences or social environmental factors, such as the practice of avoiding threatening or uncomfortable situations, has been associated with

an increased suicide risk (Joseph & Plutchik, 1994). Although household income and respondent's educational level were controlled for in this study, these socioeconomic indicators may not adequately reflect the availability and use of resources in Black communities. Such resources could enhance the ability of Blacks to cope with their stressful life experiences and could reduce the effect of hopelessness on suicidal behavior.

Results from this study should be interpreted with several limitations in mind. First, our measure of depression is an indicator of acute depressive symptoms and, as such, does not enable us to examine major depressive, dysthymic, or bipolar disorders. Such disorders may be differentially associated with the risk of a nearly lethal attempt. Second, in regard to hopelessness, our measure does not reflect the intensity of the feelings experienced. As discussed above, Blacks and Whites reporting feelings of hopelessness may experience a differing intensity in their indicators of hopelessness. Also, this study uses scales that ask about some experiences prospectively, and as a result, the sequence of the emergence of feelings of hopelessness and depressive symptoms cannot be assessed. Finally, we could not control for several factors that could confound the relationship between hopelessness and a nearly lethal suicide attempt. For example, measures of religious participation and social support were not available in this study. These factors have been identified as protective factors for suicidal behavior and may be associated with hopelessness (Gibbs, 1997; Joubert, 1994; King, Raskin, Gdowski, Butkus, & Opiari, 1990; Nisbet, 1996; Wasserman & Stack, 1992).

Future research should more closely examine the differing coping strategies of Blacks and Whites. Researchers have reported differences in coping strategies by gender (Edwards & Holden, 2003) and race (Plummer & Slane, 1996; Rodrigue, 1997; Sistler & More, 1996). Examining the impact of racial differences in coping behavior and how these behaviors affect suicide risk is an important next research step.

As mentioned, we could not assess the magnitude or intensity of the responses to items on Beck's Hopelessness Scale or on the CES-D. A study focused on assessing the intensity of the item rather than simply a report of having experienced the item should be considered. Studies should be conducted with nonclinical samples as well. Finally, this research is theoretically based on race/ethnic differences in life experiences and social-environmental factors. Examining community social capital and individual-level resiliency may result in a better understanding of the relationship between social-environmental factors, coping strategies, and differences in suicide risk for race/ethnic groups. Finally, implementing a longitudinal study to assess the effects of hopelessness on suicide risk or suicide attempts would allow

researchers to more accurately assess the relationships to understand the impact of hopelessness on suicide risk. This may result in the development of better targeted interventions and screening tools (Kaslow et al., 2004).

These early findings in this line of research suggest that prevention strategies for suicidal behavior should address the role of hopelessness in efforts to reduce the risk of suicide (Beck, 1986; Beck, Kovacs, & Weissman, 1975). A brief screening tool for hopelessness may be a potential outcome of future research. This tool may be used in the early identification of suicide attempters. The tool may be a way to identify and intervene early in the cycle of events that may result in a completed suicide. Researchers have demonstrated the effectiveness of subpopulation-specific scales in identifying symptoms of hopelessness within that population (Fry, 1984). Researchers should more closely examine the utility of Beck's Hopelessness Scale among Blacks in nonclinical settings as well as the usefulness of a brief scale for rapid assessment.

Identifying and working with individuals experiencing feelings of hopelessness (Rosenberg, 1999), especially young Blacks, could help to reverse the trend of an increasing suicide rate among youth. A strategy of promoting or facilitating hopefulness has been found to be associated with positive coping responses and a corresponding reduction in suicidality (Kaslow et al., 2004; Range & Penton, 1994). Prevention programs should incorporate strategies that encourage positive or problem-focused coping behaviors that may decrease the occurrence of symptoms of hopelessness and the risk of suicide.

If feelings of hopelessness are linked with the social environment and perceived life chances, improved opportunities for educational development, job training, and community-based urban/rural development may result in reductions in suicidal behavior. Provisions of viable opportunities for achieving socially desirable goals would be expected to result in more positive expectations and a lower risk of suicidal behavior. Interventions should take into account the multiple factors associated with hopelessness and suicide risk (Garland & Zigler, 1993).

Given the importance of hopelessness as a risk factor for suicidal behavior, we need to better understand hopelessness, its causes, and how it may lead to self-destructive behaviors. Although the differing social environments and life experiences of young Blacks and Whites have been proposed as part of the explanation for the differential effect of hopelessness on suicidal behavior, a better understanding of the causes of hopelessness is needed for the development and implementation of effective prevention strategies. Research strategies incorporating some of the issues discussed above are needed to validate and expand these early findings.

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