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Racial and Ethnic Differences in Symptom Severity of PTSD, GAD, and Depression in Trauma-Exposed, Urban, Treatment-Seeking Adults

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Abstract

Urban, socially disadvantaged individuals are at high risk for traumatic event exposure and its subsequent psychiatric symptomatology. This study examined the association between race/ethnicity and symptom severity of posttraumatic stress disorder (PTSD), generalized anxiety disorder (GAD), and depression in an urban clinical sample of 170 trauma-exposed adults. In addition, this study investigated the role of socioeconomic position (SEP) and coping style in the relationship between race/ethnicity and posttrauma psychiatric symptom severity. Hierarchical regression analyses indicated that Blacks had lower depression symptom severity compared to Whites. No significant relationship was found between racial/ethnic group status and indices of SEP, PTSD, or GAD symptom severity. Adjustment for trauma exposure, gender, positive reframe coping, avoidance coping and negative coping accounted for 3%, 3%, 8%, 4%, and 3% of the variance in depression severity, respectively; however, Black race remained significantly associated with decreased depression symptom severity accounting for a statistically significant 5% of the variance in lower depression symptom severity. These preliminary findings and their clinical implications are discussed.

Urban, socially disadvantaged individuals report high levels of traumatic event exposure (Gillespie et al., 2009). Although the clinical consequences of trauma exposure are well documented, few studies have investigated racial/ethnic differences in posttrauma psychiatric symptom severity in urban treatment-seeking adults. Moreover, although lower socioeconomic position (SEP) and coping style have been associated with racial categorization and a predisposition toward psychiatric issues (Mezuk et al., 2010), the role of these sociocultural factors in the relationship between race/ethnicity and posttrauma psychiatric symptom severity remains unclear. An understanding of these relationships is necessary for clinicians to delineate the most appropriate treatment regimens for patients.

Theories of differential exposure and differential vulnerability (Dohrenwend & Dohrenwend, 1969) may facilitate our understanding as to why sociocultural factors may increase vulnerability to posttrauma psychiatric problems. According to the differential exposure hypothesis, racial/ethnic minority groups may be exposed to more traumatic stressors compared to White groups; however, increased exposure alone has not been found

to fully explain increased posttraumatic stress disorder (PTSD) in Hispanics (Perilla, Norris, & Lavizzo, 2002; Pole, Best, Metzler, & Marmar, 2005).

According to the differential vulnerability hypothesis, racial/ethnic minorities may be more negatively impacted by trauma exposure. One reason for the differential vulnerability may include lower SEP, which may increase the psychological impact of traumatic stress (Williams, Mohammed, Leavell, & Collins, 2010). Another reason may include culturally specific beliefs about coping (Allen, 1996). Sociopolitical and historical circumstances of minority groups may shape coping responses (Allen, 1996). For example, minority groups may have beliefs regarding adapting, accepting, or God's will that stem from oppression or marginalization (Pepitone & Triandis, 1987). Greater wishful thinking coping, $r(666) = .60$, $p < .001$, and self-blame coping, $r(666) = .41$, $p < .001$, have been found to be associated with elevated PTSD symptoms in Hispanics (Pole et al., 2005). Positive coping and religious coping in Black trauma survivors have been found to be associated with increased psychological well-being (Bryant-Davis, 2005).

This study aimed (a) to determine whether the symptom severity of PTSD, generalized anxiety disorder (GAD), and depression varies with race/ethnicity; and (b) to determine whether differential exposure to trauma, SEP, or coping style explains the relationship between race/ethnicity and symptom severity of PTSD, GAD, or depression in a trauma-exposed clinical sample.

Method

Participants and Procedure

This study was conducted at three urban community health and mental health centers in southern California and approved by the California State University Long Beach Institutional Review Board. Eligible participants were English-speaking individuals over 18 years of age who had experienced, witnessed, or were confronted with any lifetime traumatic event that involved actual or threatened death or serious injury or threat to the physical integrity of others to which the individual responded with intense fear, helplessness, or horror based on Criteria A1 and A2 for PTSD according to the Diagnostic and Statistical Manual of Mental Disorders (4th ed.; *DSM-IV*; American Psychiatric Association [APA], 1994). Exclusion criteria included current psychosis, suicidal or homicidal thoughts, history of suicide attempt/psychiatric hospitalization in the past year, or substance use in the 24 hours prior to the screening interview. Participants were recruited prior to receiving any type of mental health treatment and received a \$10.00 noncash incentive for participation.

Of the 215 people who were approached and expressed interest in the study, 14.4% did not meet inclusion/exclusion criteria and 85.6% met eligibility criteria and provided written informed consent to participate. Among the 181 completers, 170 (93.9%) provided sufficient data to comprise the analytic sample for the current report. Information on race/ethnicity, age, gender, education, and income was collected using a history form. Participants who self-identified as Asian, Other, or more than one race/ethnicity ($n = 11$) were excluded from the present study because there were too few in each category to make meaningful comparisons. Thus, the final sample consisted of 170 Black, White, and Hispanic individuals.

Measures

Participants completed a short 4-item questionnaire that measured coping. Participants were asked, "Please indicate using the following scale what you generally do or how you feel when you experience challenges or stressful events." The questions for coping were (a) "I

concentrate my efforts on doing something about it” defined as problem-focused coping; (b) “I turn to other activities, such as work or sleep to take my mind off things” defined as avoidance coping; (c) “I look for something good in what happened” defined as positive reframe coping; (d) “I give up the attempt to get what I want” defined as negative coping/gives up. All items regarding coping were answered on a 4-point scale (1 = *Not at all* to 4 = *A lot*); α in this sample was .15, but the measures were not designed to be homogeneous. Participants completed one question related to religiosity: “How important is religion or spiritual faith to you?” (1 = *Extremely important* to 5 = *Not at all*).

The Stressful Life Events Screening Questionnaire (SLESQ; Goodman, Corcoran, Turner, Yuan, & Green, 1998) is a 13-item self-report screening measure designed to assess lifetime exposure to traumatic events. Participants are asked whether they have experienced each of 11 events and two “catch-all” experiences. Events are queried using dichotomous yes/no questions. For this study, we identified the number of traumas reported by the participant for 11 events, and we excluded the catch-all experiences.

The PTSD Checklist-Civilian version (PCL-C; Weathers, Litz, Herman, Huska, & Keane, 1993) is a 17-item self-report PTSD symptom scale. Respondents rated the extent they were bothered by each symptom (1 = *Not at all* to 5 = *Extremely*). Items were summed to yield a total score that serves as a measure of PTSD symptom severity. In this sample α .91.

The Brief Symptom Inventory-18 (BSI-18; Derogatis, 2001) is a self-report measure of psychological distress. Respondents reported how much each symptom bothered them during the past two weeks (0 = *Not at all* to 4 = *Extremely*). The BSI depression subscale score was computed by taking the average of the responses to the individual symptoms. Raw scores were converted to *T* scores using normative data from community samples. In the sample α = .93.

The Generalized Anxiety Disorder-7 (GAD-7; Spitzer, Kroenke, Williams, & Lowe, 2006) is a 7-item screening measure of GAD (0 = *Not at all* to 3 = *Nearly every day*). Items were summed to yield a total score that serves as a measure of GAD symptom severity. In this sample α = .87.

Data Analyses

Sociodemographic and clinical differences between the Black, Hispanic, and White groups were assessed with chi-square analyses for categorical variables or the *F* test for comparison of multiple means for continuous variables. Three hierarchical linear regression analyses were conducted to examine the effects of race/ethnicity on symptom severity of PTSD, GAD, and depression. Regression models were constructed to understand whether level of trauma exposure, SEP, or coping styles would influence mental health symptom severity differences between the Black, White, and Hispanic groups. The unstandardized regression coefficients (*B*) for the final model, their standard errors (*SE B*), standardized regression coefficients (β) for the final model, the differences (R^2) in the coefficient of multiple determination when predictors were added to the model sequentially, and the coefficient of multiple determination itself (R^2) for the hierarchically built model were obtained.

Results

Table 1 describes characteristics of the trauma-exposed adults in our sample and indicates there were significant differences between racial/ethnic groups regarding gender, but not mean age: for Blacks, $M = 44.83$, $SD = 11.57$; for Hispanics, $M = 40.71$, $SD = 12.44$; and for Whites, $M = 42.70$, $SD = 12.91$. We found that compared to the other groups, the Black group had significantly more trauma exposure and religiosity and significantly less

depression symptom severity (Table 2). No significant group differences were found for PTSD or GAD symptom severity. A regression model was constructed to explain the difference between Blacks, Hispanics, and Whites in depression symptom severity (see Table 3). No significant differences in depression symptom severity were found between Hispanic and White groups; however, significant differences were found between the Black and White groups. Black race alone accounted for a statistically significant 5% of the variance in decreased depression symptom severity. Adjustment for trauma exposure accounted for a significant 3% increase in explained depression symptom severity variance, but Black race remained significantly associated with decreased depression symptom severity. Education, income, age, and gender were the next variables added to the model. Although gender accounted for a significant 3% increase in explained depression symptom severity variance, Black race remained associated with decreased depression symptom severity though now accounting for 4% of the variance. The five coping variables were the next variables to be added to the model. Although positive reframe coping accounted for a significant 8% decrease in explained depression symptom severity variance, avoidance coping and negative coping/gives up explained a significant increase in explained depression symptom severity variance (4% and 3%, respectively). Yet, even after entering all of the variables in the final model, Black race remained significantly associated with decreased depression symptom severity accounting for 5% of the variance.

Discussion

The current study described the relationship between racial/ethnic group status, trauma exposure, indices of SEP, coping, and symptom severity of PTSD, GAD, and depression. Consistent with the differential exposure hypothesis, both the Black and Hispanic groups in our sample reported higher levels of trauma exposure compared to the White group; however, the severity of their trauma exposure did not fully account for racial/ethnic differences in posttraumatic distress. PTSD and GAD symptom severity did not vary by race/ethnicity. Blacks reported significantly lower depression symptom severity compared to Whites, and differential exposure to trauma, SEP, and coping style did not fully explain the relationship between race/ethnicity and depression symptom severity. Because this was a treatment-seeking sample, this study cannot provide evidence on rates of trauma and psychiatric symptoms in the community. Moreover, the findings may reflect differential access to or willingness to seek treatment among the different racial/ethnic groups.

It is possible that protective factors specific to the Black group, rather than the added disadvantage of racial minority status or low SEP, may play a role in the finding that trauma-exposed Blacks report lower levels of depression. As has been found in other studies of urban, treatment-seeking individuals, our study found a significant relationship between Black race and increased religiosity (Ford, 2008). Religious teachings promote a sense of hope (Lizardi et al., 2008), which may decrease depressive symptoms among Blacks. We also found that the Black group had the highest level of positive reframe coping and the lowest level of negative coping compared to the other groups, although these differences were not found to be statistically significant. Moreover, increased positive reframe coping was significantly related to decreased depression symptom severity, whereas increased negative coping and avoidance coping were significantly related to increased depression symptom severity. Black groups in the United States have been socialized to embrace positive coping strategies such as perseverance and searching for the good (Schwartz & Meyer, 2010). Some Blacks may receive culturally based socialization messages inspiring them to move forward despite traumatic stressors they may encounter (Bryant-Davis, 2005). The cross-sectional nature of our data limits inferences about any temporal relationship.

Our findings of lack of significant differences in mental health symptoms in Hispanics compared to Whites are seemingly at odds with other studies (Perilla et al., 2002; Pole et al., 2005). Studies focusing on acculturation reveal that recent Hispanic immigrants suffer from lower rates of mental health problems compared to Whites; however, the mental health advantage disappears as Hispanics become more acculturated (Marshall & Orlando, 2002). Future research should evaluate the role of acculturation in more detail.

This study has several limitations. The coping measure used in this study has undetermined psychometrics. There is no information on coping among individuals who did not report a trauma. PTSD, GAD, and depression symptom severity were assessed retrospectively using self-report screening instruments. The cross-sectional nature of the data limits inferences about causal assignment.

Future research should explore whether culture-specific factors buffer the onslaught of depression or whether current self-report measures fail to capture depressive symptomology in Blacks. Incorporating a deeper understanding of culturally based reactions and responses to trauma exposure into psychotherapy may foster more appropriate and effective treatments.

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Table 1

Frequencies of Trauma-Exposed Adults by Racial and Ethnic Group

Variable	Black (n = 81)	Hispanic (n = 35)	White (n = 54)	χ^2
Education				
Some HS	28.4	25.0	26.4	0.16
HS graduate	71.6	75.0	73.6	
Annual income				
<\$14,999.00	81.5	72.2	77.4	1.29
>\$15,000.00	18.5	27.8	22.6	
Gender				
Male	77.8	54.3	61.1	7.71*
Female	22.2	45.7	38.9	

Note. HS = High school.

* $p < .05$.

Table 2

Racial/Ethnic Comparisons on Trauma Exposure, Coping, and Symptoms

Variable	Black (<i>n</i> = 81)		Hispanic (<i>n</i> = 35)		White (<i>n</i> = 54)		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Trauma Exposure	5.0	2.3	4.6	2.1	3.9	2.2	3.46*
Posttrauma coping							
Religiosity	2.0	1.1	2.7	1.5	2.7	1.2	6.50*
Problem focused	3.1	0.9	3.2	0.9	3.2	0.8	0.38
Avoidance	2.9	1.0	2.8	1.1	2.7	1.0	0.63
Positive reframe	3.2	0.9	2.8	1.1	3.0	1.0	1.84
Negative/gives up	1.8	1.0	1.9	1.1	2.1	1.1	1.73
PTSD	41.7	15.4	43.8	15.3	44.4	12.8	0.64
GAD	8.6	5.3	10.2	6.1	9.7	6.0	1.24
Depression	56.9	10.8	61.4	11.7	62.5	10.9	4.73*

Note. *N* = 168–170. PTSD = posttraumatic stress disorder; GAD = generalized anxiety disorder.

* $p < .05$.

Table 3

Regression Model of Race and Ethnicity Predicting Current Depression Symptomology

Variable	<i>B</i>	<i>SE B</i>	β	$R^2 \Delta$	R^2
Trauma exposure	0.89*	0.37	.18	.03*	.03
Education (Reference some HS)	3.47	1.81	.16	.00	.04
Income (Reference >\$15,000.00/year)	0.85	2.08	-.09	.01	.04
Age	0.14	0.07	.12	.01	.05
Gender (Reference male)	0.33*	1.88	.02	.03*	.08
Religiosity	0.13	0.66	.00	.01	.09
Problem-focused coping	-1.18	0.96	-.09	.01	.10
Positive reframe coping	-3.38***	0.86	-.28	.08***	.17
Avoidance coping	2.32**	0.78	.20	.04**	.21
Negative coping/gives up	1.53*	0.77	.15	.03**	.24
Race/ethnicity (Reference White)				.05**	.29
Black	-5.69**	1.93	-.24		
Hispanic	-1.11	2.18	-.05		

Note. *N* = 168. HS = High school.