

Perceived Discrimination, Social Stress, and Depression in the Transition to Adulthood: Racial Contrasts



John Taylor; R. Jay Turner

Social Psychology Quarterly, Vol. 65, No. 3. (Sep., 2002), pp. 213-225.

Stable URL:

<http://links.jstor.org/sici?sici=0190-2725%28200209%2965%3A3%3C213%3APDSSAD%3E2.0.CO%3B2-W>

Social Psychology Quarterly is currently published by American Sociological Association.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/asa.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is an independent not-for-profit organization dedicated to creating and preserving a digital archive of scholarly journals. For more information regarding JSTOR, please contact support@jstor.org.

Perceived Discrimination, Social Stress, and Depression in the Transition to Adulthood: Racial Contrasts*

JOHN TAYLOR

R. JAY TURNER

Florida State University

We consider the association between racial discrimination and depression in a relatively comprehensive assessment of general social stress. Data for this investigation come from a sample of Miami-Dade County young adults; the present analyses are limited to African American and white non-Hispanic respondents. Findings indicate that perceptions of discrimination are strongly related to psychological distress. Surprisingly, however, these perceptions contribute almost nothing to an understanding of the origins of racial differences in depression. It appears that differences in lifetime adversity and in exposure to recent and chronic stressors capture those variations in personal history and circumstance which are linked to and arise from social disadvantage and which are relevant to mental health. Variations in these more general forms of social stress account for observed racial differences in depressive symptomatology.

As Williams and colleagues (Williams, Spencer, and Jackson 1999:71) observed, scholars agree increasingly that race is not a measure of biological distinctiveness but a gross indicator of distinctive social and individual histories (also see Cooper and David 1986; Gould 1977). Thus race is a social categorization akin to ethnic status (Williams 1997). From this perspective, there are compelling reasons for focusing research on identifying the life course and contemporary structural and experiential accompaniments to minority status that largely define inequality in our society and that may be crucial contributors to inequality in health and well-being (Williams 1997; Williams and Collins 1995).

Both logic and evidence support two guiding assumptions: that the corollaries and consequences of racism include greater exposure to a variety of social stressors, and that a significant portion of documented inequalities in health arises, directly or indirectly, from differences in exposure to stress. As has been argued elsewhere (Turner, Wheaton,

and Lloyd 1995), the stress hypothesis has never been tested fully because we have yet to develop an adequate assessment of variations in stress exposure. To make a meaningful assessment of ethnic differences in such exposure, one must consider the stress of perceived discrimination and examine its health significance in the context of variations in other forms of stress exposure. Many of these variations presumably arise, at least in part, from contexts conditioned by institutional and structural discrimination.

Although the health significance of discrimination has been assessed in a number of studies, we still do not know whether the stress associated with perceived discrimination makes a unique contribution or is reflected in variations in exposure to more general social stress. This is so because social stress has never been estimated effectively (Turner et al. 1995). Failure to consider all the elements of what Wheaton (1994) calls the "stress universe" may well cause systematic underestimation of status differences in stress exposure. Indeed, analyses of the present data set has revealed that stress exposure, as assessed conventionally by recent life events, leads to substantial underestimates of total stress exposure, measured more comprehensively, among both African Americans and persons of lower socioeconomic status

* This work is supported by Grant 5 R01 DA 10772-03 from The National Institute on Drug Abuse to R. Jay Turner. Direct correspondence to John Taylor, Department of Sociology, Florida State University, 573 Bellamy Building, Tallahassee, FL 32306-2270; jrtaylor@garnet.acns.fsu.edu

(Turner and Avison forthcoming). In this paper we assess the mental health significance of the stress of perceived discrimination in light of relatively comprehensive estimates of other forms of stress exposure, and consider the contribution of various forms of social stress in accounting for status differences in mental health.

BACKGROUND

Stress theory has become a prominent theoretical framework for conceptualizing variations in risk for both physical and mental health problems (Thoits 1999). Pearlin (1989) argued that stress exposure, as well as other risk and protective factors, arise from the context of people's lives—that they are shaped by the conditions in which people live and work. From this perspective, the growing body of evidence linking risk factors for health outcomes to socioeconomic status and race (Aneshensel 1992; House, Lepkowski, and Kinney 1994; Mirowsky and Ross 1989; Williams 1990) can be no surprise. As LaVeist (1996:24) noted, “[W]ithin the context of health outcomes, race is fundamentally a measure of exposure to health risks.” In keeping with this view, there is substantial consensus that racial discrimination accounts for an important part of these health risks (Brown et al. 2000; Finch, Kolody, and Vega 2000; Noh et al. 1999).

Researchers have identified both structural and subjective pathways from discrimination to health. The structural characteristics of discrimination systematically restrict life chances for access to valued social resources and roles; such restriction, in turn, exposes racial minorities to increased risks for poor health (LaVeist 1996). For example, studies of health care utilization have produced a large body of evidence suggesting systematic racial and ethnic differences in the availability and quality of received health care (for an extensive review, see Polednak 1997). Other studies suggest a synergistic relationship between discrimination and distress: this research demonstrates how racial segregation creates and perpetuates underclass communities (Massey and Denton 1993; Wilson 1987, 1996). Massey and Denton (1993:109) have called segregation the lynchpin of the

underclass: they argue, “Not only does discrimination lead to segregation, but segregation, by restricting economic opportunities for blacks, produces interracial economic disparities that incite further discrimination and more segregation.” Certainly these conditions exacerbate health disparities between advantaged and disadvantaged racial and ethnic groups.

Research also has established strong connections between subjective perceptions of discrimination and a broad array of health outcomes (for excellent reviews see Brown et al. 2000; Krieger 2000; Polednak 1997; Vega and Rumbaut 1991; Williams 1997; Williams and Collins 1995; and Williams and Williams-Morris 2000). Reviews of this literature consistently have documented associations between discrimination and physical disorders such as hypertension, increased risks for coronary artery disease, and more general troubles including higher levels of sick days, physical disability, and chronic health problems.

In addition, an emerging literature links discrimination to psychological well-being (see Brown et al. 2000; Finch et al. 2000; Kessler et al. 1999; Klonoff et al. 1999; Noh et al. 1999; Williams et al. 1997). Consistent patterns of findings are reported across all racial and ethnic groups including white non-Hispanics (Kessler et al. 1999). For example, Kessler and colleagues (1999) report that perceptions of discrimination are common across racial/ethnic groups: whites report a rate of 30.9 percent compared with 48.9 percent for African Americans and 50.2 percent for other racial and ethnic minorities. Thus the perception of suffering discrimination is highly prevalent in our society and may be an important dimension of stress exposure.

Only two studies, however, demonstrate the significance of discrimination, for mental health in the context of other forms of social stress. Williams et al. (1997), studying a large community sample of adults, found that daily discrimination affected racial differences in psychological distress and contributed significantly to the prediction of distress, with controls for demographics and general stress. Similarly, in a study of African American adults, Klonoff et al. (1999) found that discrimination predicted psychological distress

when ordinary stressors were held constant. Although Williams et al. (1997) considered chronic stress, including financial stress, along with nine recent life events, we believe that a more comprehensive estimate of variations in exposure to general stress is needed to determine whether discrimination stress is a distinct risk factor.

METHOD

Sample

This study builds on a previous three-wave investigation based in the Miami-Dade public school system (Vega and Gil 1998). All 48 of the county's public middle schools and all 25 public high schools participated, as did alternative schools. Data were obtained from students in grades 6 and 7, and were gathered again each from these students until they reached grades 8 and 9. Consent forms were sent to parents of the total population of 9,763 male students scheduled to enter grades 6 and 7, and to 669 female students from six schools selected to approximate the ethnic composition of all middle schools in the county. Completed questionnaires were obtained from 7,386 of the 10,432 prospective participants at wave 1, from 6,646 at wave 2, and from 5,924 at wave 3. Detailed analyses provided assurance that Time 1 participants were highly representative of the population from which they were drawn; this was also true for the Time 3 participants despite an attrition of nearly 20 percent across the three data points (Vega and Gil 1998).

Within the confines of ethnicity criteria, all female participants in the earlier investigation and a random sample of 1,300 male participants were selected for follow-up. Information on 1,264 of these male prior participants ultimately was released to the field staff. To supplement the sample of females, we employed as the sampling pool the Miami-Dade County grades 6 and 7 class rosters from the year of wave 1 data collection. We randomly selected the names of 1,000 new girls from this pool, and stratified them to achieve the target ethnic distributions. The first 909 of these girls ultimately were sought by field staff members. Overall, 70.1 percent of those we searched for and attempted to

recruit to the study were interviewed. By far the greatest loss (41.8%) occurred in the new sample of females, who had no previous involvement in the study.

Although a significant number of the target sample had left the area to attend college or for other reasons, we succeeded in interviewing 76.4 percent of subjects studied previously. At the time of the follow-up interview, 93 percent of the sample were between 19 and 21 years old.

Comparisons of persons interviewed with the random sample drawn from the original study population revealed no statistically significant differences on a wide array of early adolescent behaviors and family characteristics that are likely to be relevant to mental health and substance use risks. The sample was drawn so as to achieve roughly equal representation of non-Hispanic whites, African Americans, persons of Cuban heritage, and "other Hispanics." In this paper, however, we consider only the African American (N = 434) and non-Hispanic white (N = 463) subgroups. Important cultural variations obviously exist within ethnic statuses; in an effort to minimize the effects of such variations on results, we excluded from the present analyses respondents who self-reported their ethnic status as African Haitian or African Caribbean. Also, because of the complexity of the issues involved and because there is a distinct relevant literature regarding Hispanics, we treat in a separate paper the role and mental health significance of perceived discrimination among Hispanics.

Measures

Depressive symptomatology. We measured this variable using a modification of the highly reliable 20-item Center for Epidemiology Studies Depression Scale (CESD) (Radloff 1977).¹ This measure differed from the original in addressing experiences over the preceding month rather than the preceding week and in its use of the response categories "not at all," "occasionally," "frequently," and "almost all of the

¹ The full text of all measures is available on request.

time." The use of a one-month time frame provides a larger sample of recent experience, and we believed it would reduce the possible influence, on responses, of short-term mood variations.

In the analyses to be presented, we scored the four response categories 0, 0, 1, and 2, thereby combining the "not at all" and the "occasionally" responses. We did so because of four pieces of evidence: (1) Prior analyses of responses to the CES-D indicated that adolescents, especially minority adolescents, do not reliably report infrequent or mild experiences of symptoms (Robert E. Roberts, Director of the University of Texas Health Science Center at Houston, personal communication). (2) African Americans are more likely than whites to use the extreme response categories in responding to Likert-type questions (Bachman and O'Malley 1984). (3) analyses of the present data revealed that white respondents were more likely than African Americans to report the "occasional" experience of symptoms: whites used the "occasionally" response three times for every time they reported a symptom as occurring either "frequently" or "almost all of the time," compared with 1.7 times among African Americans. (4) We examined this tendency using Item Response Theory (IRT) analyses, which revealed that the threshold (along the latent construct of depression) for responding "occasionally" was significantly higher for African Americans than for non-Hispanic whites. The internal reliability for this scale is .82.

Discrimination. We assessed perceptions of discrimination in terms of both major events and day-to-day experiences employing measures developed by Williams and colleagues (Williams et al. 1997). As observed by Kessler et al. (1999), these indices were based largely on insights from qualitative studies of discrimination (Essed 1991; Feagin 1991). (These two sets of items are displayed below in Tables 1 and 2.) The authors label the first set of items "major" because their occurrence at any time tends to interfere with social and economic achievement, with accompanying consequences for life chances and well-being. The second scale assesses experiences "that, for

most part, involve character assaults that may or may not lead to an interference with advancing one's socioeconomic position" (Kessler et al. 1999:212). Scores on major discrimination are simple counts of the number of items reported as ever having occurred; the internal reliability for this scale is .88. Day-to-day discrimination is estimated by the sum of Likert scores across the nine items; the internal reliability for this scale is .85. Because we focus here on the effects of racial discrimination, we exclude reports of major and day-to-day discrimination in which gender, age, or sexual orientation were cited as reasons for unfair treatment.

Social stress. Our measure of general stress exposure (see appendix) involves consideration of three dimensions of stressful experience: recent life events, chronic stress, and lifetime major and potentially traumatic events. We assessed recent life events using a 33-item checklist of negative events common to many life event indices (Avison and Turner 1988; Turner and Avison 1992; Turner et al. 1995). These items are presented in the appendix. Our chronic stress measure was composed of 36 items that we developed using the logic and items of Wheaton's measure (Wheaton 1991, 1994; also see Turner et al. 1995) as a starting point. The modifications we applied to the instrument were designed to capture more successfully the enduring stressors that young persons are likely to experience in their transition to adulthood. We measured lifetime exposure to major and potentially traumatic events with a relatively comprehensive set of 41 questions. Participants were asked whether each event had ever occurred, how many times, and their own age at first and last occurrence. In these analyses, the measures of recent life events, of chronic stress, and of lifetime major/traumatic events are each simple counts of the number reported. Multiple occurrences of the same event were not added to the count.

Sociodemographic variables. In the analyses we present below, African American and female are each coded 1. Because individuals in the sample are still making the transition to adulthood, we estimated their socioeconomic status with a composite score

based on parents' income level, occupational category (Hollingshead 1957), and educational attainment. We gathered these data from parents' rather than young adults' reports, except where we could not obtain interviews with parents. Scores on these three status dimensions were standardized, summed, and divided by the number of status dimensions on which data were available.

RESULTS

Variations by race in the percentage of participants reporting the experience of each form of "major discrimination" are shown in Table 1. Data presented in the bottom row confirm the expectation that African Americans are substantially more likely than whites to have experienced some form of major discrimination during their lifetime (44.7% vs. 28.7%). Most of this discrepancy is attributable to differences in the first three types of experiences listed, although significant differences between white and African American males are also observed on the items "unfairly discouraged from seeking a wanted job" and "neighbors made life difficult." Thus African Americans were more than twice as likely as whites to indicate that police had treated them unfairly, and more than 2 1/2 times more likely to have been unfairly not hired.

As noted earlier, Kessler et al. (1999), using the same measure, reported race/ethnicity and gender differences in the prevalence of perceived "major discrimination" for a nationally representative sample age 25 and older. In their data, 30.9 percent of non-Hispanic whites and 48.9 percent of African Americans reported experiencing one or

more forms of such discrimination when discrimination associated with age, gender, and sexual orientation was also considered. When we consider these additional sources here, along with racial discrimination, the lifetime prevalence of one or more discrimination experiences is 59.8 percent among non-Hispanic whites and 74.4 percent among African Americans. These prevalences may be substantially higher, at least in part because our sample consists of young adults. In a large community study in which the same measures of discrimination were used, Kessler et al. (1999) observed that perceived discrimination tended to decline with age. Gary (1995) reported the same trend among African Americans, whereas Sigelman and Welch (1991) found a modest positive relationship between age and perceived discrimination.

Responses to items on perceived day-to-day discrimination are shown in Table 2. Relatively few racial differences are observed. African Americans were substantially more likely to report that "people act as if they are afraid of you," that "people act as if you are dishonest," and that "people act as if they are better than you." When all items are considered together, however, the mean score for African Americans does not differ significantly, from that for whites. This quantitative similarity, however, cannot be taken to imply similarity in the quality or personal meanings of experienced discrimination.

Table 3 presents mean scores by race; Table 4 presents the correlations among all variables to be analyzed. Each comparison reveals the expected pattern: African Americans report higher levels of symptoms and significantly lower SES and than whites.

Table 1. Prevalence of Lifetime Major Discrimination, by Race (Percentages)

	White	Black
Fired or Denied a Promotion	7.2	13.1*
Not Hired	6.8	19.5*
Treated Unfairly by Police	11.7	26.0*
Discouraged From Seeking Further Education	8.5	10.1
Discouraged From Seeking a Job You Want	5.6	8.8
Landlord/Realtor Refused to Sell or Rent to You	1.0	1.4
Neighbors Made Life Difficult	7.7	8.3
Any of the Above	28.7	44.7*
N	463	434

* $p < .05$

Table 2. Mean Scores on Perceived Day-to-Day Discrimination, by Race (Percentages)

	White	Black
Treated With Less Courtesy	.88	.99
Treated With Less Respect	1.03	.97
Receive Worse Service	.76	.86
People Act as If They Think You Are Not Smart	.80	.99
People Act as If They Are Afraid of You	.80	1.08*
People Act as If You Are Dishonest	.52	.78*
People Act as If They Are Better Than You	1.24	1.49*
Called Names or Insulted	.63	.62
Threatened or Harassed	.41	.37
Any of the Above	8.49	9.25
N	463	434

* $p < .05$

Table 3. Mean Distribution of Study Variables

	White	Black
Depressive Symptoms	2.89	4.35*
SES	.75	-.20*
Major Discrimination	1.07	1.53*
Day-to-Day Discrimination	8.49	9.25
Lifetime Traumas	6.09	8.10*
Life Events	1.46	2.17*
Chronic Stress	11.41	13.10*
N	463	434

* $p < .05$

Also, as noted above, they experience significantly higher levels of major discrimination, but not of day-to-day discrimination. Data on each measure of general stress indicate substantially higher exposure among African Americans. The discrimination measures, however, are not highly correlated with reported levels of other forms of social stress, which vary from .13 to .26.

Collectively these findings are consistent with the hypothesis that differential risk for depression originates, at least in part, in rather profound differences in stress exposure associated with minority status. To evaluate this hypothesis more directly, we

regressed depression scores on the dimensions of social stress, including discrimination stress, with controls for gender and SES (Table 5). Eq. (1) indicates that each demographic factor contributes independently to the prediction of depression. Even with SES held constant, African Americans experience significantly higher levels of depressive symptomatology than do whites. Eq. (4) demonstrates that each form of discrimination stress matters independently in predicting depression, but together they do not notably modify the coefficient for African Americans' elevation in symptomatology. When we also consider the remaining dimensions of social stress, however (Eq. (8)), the racial difference in depression all but vanishes, declining from 1.043 to .147, or by 88 percent. In additional analyses (not shown), we limited our consideration to those African American and non-Hispanic white participants on whom longitudinal data were available. This information includes assessments of depressive symptoms made approximately six years earlier, when participants were in grades 8 and 9 ($N = 688$). With controls for

Table 4. Correlation Matrix, All Study Variables

	1	2	3	4	5	6	7	8	9
1 Female	1.000								
2 SES	.032	1.000							
3 African American	-.058	-.468	1.000						
4 Major Discrimination	-.128	-.212	.176	1.000					
5 Day-to-Day Discrimination	-.162	-.125	.057	.255	1.000				
6 Lifetime Traumas	-.118	-.213	.243	.256	.194	1.000			
7 Life Events	.071	-.279	.241	.139	.130	.433	1.000		
8 Chronic Stress	.047	-.213	.273	.201	.131	.336	.270	1.000	
9 Depressive Symptoms	.165	-.178	.167	.132	.099	.238	.292	.375	1.000

Table 5. Depressive Symptoms Regressed on Discrimination and Stress

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female	1.573*** (.283)	1.689*** (.284)	1.719*** (.285)	1.787*** (.285)	1.909*** (.280)	1.570*** (.280)	1.518*** (.272)	1.457*** (.271)
SES	-.552*** (.157)	-.472** (.158)	-.496** (.157)	-.440** (.157)	-.369* (.155)	-.254 (.156)	-.337* (.150)	-.204 (.149)
African American	1.043** (.320)	.949** (.319)	1.048** (.318)	.969** (.318)	.674* (.316)	.686* (.313)	.353 (.308)	.147 (.305)
Major Discrim.		.452** (.131)		.375** (.134)	.236 (.134)	.319* (.131)	.200 (.129)	.138 (.128)
Day-to-Day Discrim.			.071** (.022)	.057* (.022)	.040 (.022)	.042 (.022)	.038 (.021)	.025 (.021)
Lifetime Traumas					.217*** (.036)			.078* (.038)
Life Events						.677*** (.098)		.447*** (.102)
Chronic Stress							.461*** (.046)	.395*** (.047)
Intercept	2.559	2.222	1.843	1.702	.484	.839	-3.251	-3.555
R ²	.072	.084	.083	.091	.127	.137	.182	.212

Notes: Unstandardized OLS regression coefficients; standard errors are in parentheses. $N = 897$.

* $p < .05$; ** $p < .01$; *** $p < .001$

prior level of depressive symptoms, we observed highly consistent results. This finding suggests that stress exposure is more a cause than a consequence of differences in depression.

These results address the core question: whether perceived discrimination contributes uniquely to the prediction of well-being as estimated by depressive symptoms. When the significant contributions of all three measures of general social stress are controlled (Eq. (8)), the coefficients for perceived major and day-to-day discrimination are reduced by 69 and 65 percent respectively and are far from statistically significant. Eqs. (5) through (8) allow consideration of the relative mediating effects of each dimension of general stress. Nontrivial mediation effects are observed when each dimension is considered separately; these effects are highly similar in the case of day-to-day perceived discrimination. With respect to major discrimination, recent life events exhibit the weakest mediating effects, and chronic stress the strongest.

Although we found no evidence of the independent significance of perceived discrimination, we had to consider the possibility that the relevance of discrimination might be conditional on ethnicity. We examined this question by adding ethnicity by major discrimination and ethnicity by day-to-day dis-

crimination interaction terms to Eq. (8) of Table 5. Both were far from significant, an indication that the findings hold true within as well as across ethnic subgroups.

DISCUSSION

This study is part of an ongoing effort to more fully consider the significance of social stress for mental health. In the present case, our guiding research question was whether perceived discrimination stress contributes independently to depression in the context of more general measures of stress exposure. These analyses indicate that both individually and in tandem, the two measures of discrimination employed here are related significantly to depressive symptomatology. In addition, these measures account for approximately 20 percent of the observed class differences in depression. Thus some portion of the association between SES and depression appears to arise from SES differences in perceived discrimination.

We are not surprised to find that perceived discrimination undermines psychological health. What was unexpected was the observation that variations in perceived discrimination did not contribute to explaining those racial differences in depression which are independent of SES (Table 5, Eq. (4)). Moreover, with other stress dimensions con-

trolled, the relationship between discrimination and depression could no longer be observed. These results are contrary to those of Williams et al. (1997), who found that discrimination stress makes a significant independent contribution to the prediction of distress and strongly influences race differences in symptomatology.² This difference may exist because we employed more comprehensive estimates of general stress exposure in the present analyses.

When differences in exposure to other forms of social stress were taken into account in the present study, racial differences were explained almost entirely (88%), along with over 60 percent of the SES-depression relationship. We suggest that racial differences in stress exposure, as estimated here, capture more adequately a crucial dimension of the distinctive individual and social histories of African Americans in the United States. Certainly these differences in exposure are inevitable correlates of the structurally based social disadvantage that disproportionately characterizes the lives of minority populations. In the words of Aneshensel (1992:33), "Group differences in exposure to stress point inexorably toward social structural origins." Our results thus strongly support the argument of Williams and colleagues (1997:349), that these systems "and not individual beliefs and behavior are the fundamental causes of racial and socio-economical inequalities in health." Thus, although perceived discrimination does not contribute to the prediction of depressive symptomatology when a comprehensive set of general stress measures is controlled, this fact by no means

suggests that stress associated with discrimination is not a central factor in psychological well-being.

It may be impossible to disentangle stress due to discrimination from stress due to other causes, because the attribution of discrimination with respect to negative events and circumstances requires an awareness or perception of its role that cannot be assured and that often may be inaccurate. The present results do suggest that, in the context of high levels of social stress, our understanding of variations in depression within or across ethnic groups is not increased significantly by the perception that some stressors result from discrimination. In addition, our findings suggest that relatively comprehensive efforts to sample the stress universe, whether or not they explicitly include assessment of discrimination events, are likely to capture stress differences associated with such events.

We believe that these results represent a significant advance toward specifying factors relevant to inequalities in health; thus it seems important to acknowledge possible limitations. Although we regard as reliable the measure of discrimination stress that we employed, confidence in its adequacy would be premature (Brown 2001). A more elaborate, more comprehensive effort to index variations in perceived discrimination might well yield different results. Moreover, we do not know to what extent some of the stressful events and circumstances that we have shown to differentially characterize African Americans' past and present lives were perceived as reflecting or arising from discrimination, because we did not ask.

We acknowledge other possible limitations as well. First, the selected measure of major lifetime discrimination appears to be more suited for a somewhat older population. Because our participants were in the transition to adulthood, the questions on employment, occupational advancement, and housing may have been less relevant to their experience. Thus scores on "major lifetime" discrimination may be lower than would be observed in older samples.

The work of Firebaugh and Davis (1988) also bears on the generalizability of our results: their study shows that younger

² Controlling on discrimination and on other stressors moved the race coefficient from essentially zero to a significant negative value. Thus, if whites experienced equal levels of discrimination and other stressors, African Americans would be significantly lower on psychological distress. Without the modification in scoring the CES-D, our data produce similar findings. Instead of explaining 80 percent of an observed elevation among African Americans, we would report an 80 percent decrease in the difference coefficient: African Americans would register significantly lower levels, with controls for stress. It is uncertain whether African Americans suffer equal or elevated depression relative to whites without controls on stress exposure; this question is not important with respect to our findings on the relative mental health significance of social stress.

Americans are less prejudiced than their older counterparts. These authors interpreted the reduced levels of anti-black prejudice that they documented as reflecting cohort effects rather than changes in attitude. It may be that racial differences in discrimination observed in this study were less pronounced than expected because this cohort has experienced fewer specific instances of unfair treatment than older cohorts. On the other hand, some research suggests that, although discrimination remains highly prevalent, we are witnessing a shift from traditional to modern forms of its expression. From this perspective, acts of discrimination have become less overt and directly confrontational. As Pettigrew (1985) observed, this change has made it increasingly difficult to conceptualize and measure discrimination accurately.

A second factor that may have contributed to relatively modest racial differences in perceived discrimination involves the unique social situation of south Florida. The present analyses were limited to non-Hispanics; thus only part of the picture was presented. In fact, however, our data indicate that white non-Hispanics perceive relatively high levels of discrimination, especially in comparison with Cuban Hispanics. The Cubans' struggle for success in Miami over the past four decades has redefined the city's social landscape. In this process, African Americans have found themselves to be further subordinated, and white non-Hispanics have lost their political hegemony (Portes and Stepick 1993). These and other factors, such as facility in the Spanish language, may have heightened perceptions of unfair treatment among both non-Hispanic whites and African Americans. The significance of perceived discrimination, relative to that of other stressors arising from social contexts influenced strongly by discrimination, may differ in older populations and in different geographical locations.

Finally, the fact that assessments of chronic stress are intrinsically subjective raises the possibility of confounding with depressive symptoms. Several researchers have addressed this issue. Wheaton (1991, 1994), for example, in a series of confirmatory factor analyses, found that chronic strains and depressive symptoms load on separate fac-

tors. McGonagle and Kessler (1990) argue that because chronic stress represents ongoing and unresolved problems, the magnitude of their effects is likely to be greater than that of more distal stress exposures.

In sum, the purpose of the present research has not been to disprove or even to challenge evidence that discrimination is an important determinant of mental health. Further, we do not regard these results as suggesting that it is unnecessary to explicitly measure perceptions of discrimination when other measures of stress exposure are considered. Rather, we view appraisals of stress exposure and racial discrimination as two sides of the same coin: variations in each are linked inseparably to differences in health and well-being. Thus, a full accounting of each is necessary if we are to adequately assess the full range of risks for mental health problems.

Two points are underscored by the finding that discrimination, as measured here, does not predict depressive symptomatology in the context of other measures of social stress. First, it appears that the measures of stress employed here, especially chronic stress, have captured many of the harmful experiences resulting from racial discrimination. Second, intensified research is needed to assess more comprehensively the appraisals of discrimination.

Appendix. Measures of stress exposure

Life Traumas

Here are some potentially serious events that could have happened at any time in your life. Please tell me if any of these things have happened to you.

1. Did you ever lose your home because of a natural disaster (IF NECESSARY, fire, flood or hurricane)?
2. Have you ever had a serious accident, injury or illness that was life threatening or caused long-term disability?
3. Have you ever witnessed a serious accident or disaster where someone else was hurt very badly or killed?
4. Did you ever have sexual intercourse when you didn't want to because someone forced you or threatened to harm you if you didn't?
5. Were you ever touched or made to touch someone else in a sexual way because they forced you in some way, or threatened to harm you if you didn't?

6. Were you regularly physically abused by one of your parents, stepparents, grandparents, or guardians?
7. Were you regularly emotionally abused by one of your caretakers?
8. Were you ever physically abused or injured by a spouse/boyfriend/girlfriend?
9. Were you ever physically abused or injured by someone else you knew?
10. Did you witness your mother or another close female relative being regularly physically or emotionally abused?
11. Have you ever been shot at with a gun or threatened with another weapon but not injured?
12. Have you ever been shot with a gun or badly injured with another weapon?
13. Have you ever been chased *but not caught* when you thought you could really get hurt?
14. Have you ever been physically assaulted or mugged?
15. Have you seen someone chased but not caught, or threatened with serious harm?
16. Have you seen someone else get shot at or attacked with another weapon?
17. Have you ever seen someone seriously injured by gunshot or some other weapon?
18. Have you ever actually seen someone get killed by being shot, stabbed, or beaten?
19. Have you ever been in a car crash in which someone was killed or badly injured?
20. Have you ever been told that *someone you knew* had been shot, but not killed?
21. Have you ever been told that *someone you knew* had been killed with a gun or other weapon?
22. Has *anyone else you knew* died suddenly or been seriously hurt?
23. Have you ever been told that *someone you knew* killed him- or herself?
24. Have you ever been told that *someone you knew* had been raped?
25. Did you ever fail a grade in school?
26. Did your father or mother not have a job for a long time when they wanted to be working?
27. Were you ever sent away from home or kicked out of the house because you did something wrong?
28. Were you ever abandoned by one or both of your parents?
29. As a child, did you ever live in an orphanage, a foster home, a group home or were you a ward of the state?
30. Were you ever forced to live apart from one or both of your parents?
31. Did your parents ever divorce/separate?
32. Have you ever had a child who died at or near birth, or one that was taken away from you?
33. Has anyone close to you ever died?

If yes, who was that?

- aa. Mother/Stepmother
- ba. Father/Stepfather
- ca. Brother or Sister

- da. Spouse/Boyfriend/Girlfriend
- ea. A Child of Respondent
- fa. Grandparent
- ga. Another Loved One
- ha. A Very Close Friend

Life Events

I'd like to ask about some things that happened *to you, or to someone close to you* (that is your partner/boyfriend/girlfriend, parents, other relatives or close friends). Please tell me which of the following experiences happened to you or someone close to you *in the past 12 months*.

1. Was there a serious accident or injury?
2. Was there a serious illness?
3. Did a child die?
4. Did a partner/ boyfriend/girlfriend die?
5. Was there trouble with the law?
6. Did anyone have something taken from them by force?(robbed)?
7. Was anyone beaten up or physically attacked?
8. Was there an unwanted pregnancy?
9. Was there an abortion or miscarriage?
10. Was someone accused of or arrested for a crime?
11. Did someone drop out of school?
12. Did a close friend die?
13. Was there a marital separation or divorce?
14. Was there a loss of home due to hurricane, flood, or other disaster?
15. Was someone fired or laid off?
16. Did someone have a business that failed?
17. Did someone have a major financial crisis?
18. Did someone fail school or a training program?

Please tell me which of the following occurred to *you or to your partner/spouse in the past twelve months*. Have either of you

19. Experienced a change of job for a worse one?
20. Was demoted at work or took a cut in pay?
21. Was sued by someone?
22. Went on welfare?
23. Was forced off welfare?
24. Went on strike?

Please tell me which of the following experiences *you personally have had in the past 12 months*.

25. A romantic relationship ended?
26. Found out partner/boyfriend/girlfriend was unfaithful?
27. A close relationship ended?
28. Partner/boyfriend/girlfriend found out you were unfaithful?
29. Increased arguments with your partner/ boyfriend/girlfriend?
30. Moved to a worse residence or neighborhood?
31. Had driver's license taken away?
32. Had your house or car broken into?
33. Your parents asked you to leave your house (kicked you out)?

Chronic Strain

The following section describes some situations that sometimes come up in people's lives. As I read each item, please tell me whether these things are not true, somewhat true, or very true for you at this time.

1. You're trying to take on too many things at once.
2. There is too much pressure put on you to be like other people.
3. Too much is expected of you by others.
4. Your supervisor is always watching what you do at work.
5. You want to change jobs but don't feel you can.
6. Your job often leaves you feeling both mentally and physically tired.
7. You don't get paid enough for the job you have.
8. Your work is boring and repetitive.
9. You are looking for a job and can't find the one you want
10. You have a lot of conflict with your partner.
11. Your partner doesn't understand you.
12. You don't get what you deserve out of your relationship.
13. Your partner doesn't show enough affection.
14. Your partner is not committed enough to your relationship.
15. One of your children seems very unhappy.
16. You feel your children don't listen to you.
17. A child's behavior is a source of serious concern to you.
18. The place that you live is too noisy or too polluted.
19. When coming or going from your neighborhood, you have to plan carefully to avoid being a victim of violence or crime.
20. There are some places in your neighborhood where you never feel safe.
21. You often hear gunshots in your neighborhood.
22. Gang-related crime or violence is a problem in your neighborhood.
23. There is a lot of drug use and drug sales in your neighborhood.
24. You are not sure that you will be able to complete your education.
25. You find it difficult to balance your school demands with your social life and/or work.
26. You are concerned with your ability to keep up your grades.
27. You want to go to college but you don't have the money to pay for it.
28. You want to go to college but you don't have the grades to get in.
29. Your parent(s) don't really remember what it was like to be your age.
30. Your parent(s) beliefs are old fashioned.
31. Your parent(s) expect you to act like they did in the old days when they were young.
32. Your parent(s) are unwilling to see you as an adult.
33. Your parent(s) are too controlling.
34. Your parent(s) ask too many questions about where you've been or what you've been doing.
35. Your parent(s) try to protect you too much.

36. Are there any other difficulties in your life right now that are there most of the time but we haven't asked you about?

Response categories: (0) not true; (1) somewhat true; (2) very true.

REFERENCES

- Aneshensel, Carol S. 1992. "Social Stress: Theory and Research." *Annual Review of Sociology* 18:15-38.
- Avison, William R. and R. Jay Turner. 1988. "Stressful Life Events and Depressive Symptoms: Disaggregating the Effects of Acute Stressors and Chronic Strains." *Journal of Health and Social Behavior* 29:253-64.
- Bachman, Jerald G. and Patrick M. O'Malley. 1984. "Black-White Differences in Self-Esteem: Are They Affected by Response Styles?" *American Journal of Sociology* 90:624-39.
- Brown, Tony N. 2001. "Measuring Self-Perceived Racial and Ethnic Discrimination in Social Surveys." *Sociological Spectrum* 21:377-92.
- Brown, Tony N., David R. Williams, James S. Jackson, Harold W. Neighbors, Myriam Torres, Sherrill L. Sellers, and Kendrick T. Brown. 2000. "Being Black and Feeling Blue: The Mental Health Consequences of Racial Discrimination." *Race & Society* 2:117-31.
- Cooper, Richard and Richard David. 1986. "The Biological Concept of Race and Its Application to Public Health Epidemiology." *Journal of Health Politics* 11:97-116.
- Essed, Philomena. 1991. *Understanding Everyday Racism: An Interdisciplinary Theory*. Newbury Park, CA: Sage.
- Feagin, Joe R. 1991. "The Continuing Significance of Race: Antiracist Discrimination in Public Places." *American Sociological Review* 56:101-16.
- Finch, Brian Karl, Bohdan Kolody, and William A. Vega. 2000. "Perceived Discrimination and Mental Health: Perceived Discrimination and Depression Among Mexican Origin Adults in California." *Journal of Health and Social Behavior* 41:295-313.
- Firebaugh, Glenn and Kenneth E. Davis. 1988. "Trends in Antiracist Prejudice, 1972-1984: Region and Cohort Effects." *American Journal of Sociology* 94:251-72.
- Gary, Lawrence E. 1995. "African American Men's Perceptions of Racial Discrimination: A Sociocultural Analysis." *Social Work Research* 19:207-17.
- Gould, Stephen Jay. 1977. "Why We Should Not Name Human Races: A Biological View." Pp.

- 231–36 in *Ever Since Darwin*, edited by Stephen Jay Gould. New York: Norton.
- Hollingshead, August B. 1957. *Two Factor Index of Social Position*. New Haven, CT: Hollingshead.
- House, James S., James M. Lepkowski, and Ann M. Kinney. 1994. "The Social Stratification of Aging and Health." *Journal of Health and Social Behavior* 35:213–34.
- Kessler, Ronald C., Kristen D. Mickelson, and David R. Williams. 1999. "The Prevalence, Distribution, and Mental Health Correlates of Perceived Discrimination in the United States." *Journal of Health and Social Behavior* 40:208–30.
- Klonoff, Elizabeth A., Hope Landrine, and Jodie B. Ullman. 1999. "Racial Discrimination and Psychiatric Symptoms Among Blacks." *Cultural Diversity and Ethnic Minority Psychology* 5:329–39.
- Krieger, Nancy. 2000. "Discrimination and Health." Pp. 36–75 in *Social Epidemiology*, edited by Lisa F. Berkman and Ichiro Kawachi. Oxford: Oxford University Press.
- LaVeist, Thomas A. 1996. "Why We Should Continue to Study Race But Do a Better Job: An Essay on Race, Racism and Health." *Ethnicity and Disease* 6:21–29.
- Massey, Douglas S. and Nancy A. Denton. 1993. *American Apartheid*. Cambridge, MA: Harvard University Press.
- McGonagle, Katherine A. and Ronald C Kessler. 1990. "Chronic Stress, Acute Stress, and Depressive Symptoms." *American Journal of Community Psychology* 18:681–706.
- Mirowsky, John and Catherine E. Ross. 1989. *Social Causes of Psychological Distress*. New York: Aldine.
- Noh, Samuel, Morton Beiser, Violet Kaspar, Feng Hou, and Joanna Rummens. 1999. "Perceived Racial Discrimination, Depression, and Coping: A Study of Southeast Asian Refugees in Canada." *Journal of Health and Social Behavior* 40:193–207.
- Pearlin, Leonard I. 1989. "The Sociological Study of Stress." *Journal of Health and Social Behavior* 30:241–56.
- Pettigrew, Thomas F. 1985. "New Black-White Patterns: How Best to Conceptualize Them?" *Annual Review of Sociology* 11:329–46.
- Polednak, Anthony P. 1997. *Segregation, Poverty and Mortality in Urban African Americans*. New York: Oxford University Press.
- Portes, Alejandro and Alex Stepick. 1993. *City on the Edge: The Transformation of Miami*. Berkeley: University of California Press.
- Radloff, Lenore S. 1977. "The CES-D Scale: A Self-Report Depression Scale for Research in the General Population." *Applied Psychosocial Measurement* 1:385–401.
- Sigelman, Lee and Susan Welch. 1991. *Black Americans' Views of Racial Inequality*. New York: Cambridge University Press.
- Thoits, Peggy. 1999. "Self, Identity, Stress, and Mental Health." Pp. 345–68 in *Handbook of the Sociology of Mental Health*, edited by Carol S. Aneshensel and Jo C. Phelan. New York: Kluwer.
- Turner, R. Jay and William R. Avison. 1992. "Sources of Attenuation in the Stress-Distress Relationship: An Evaluation of Modest Innovations in the Application of Event Checklists." Pp. 265–300 in *Research in Community and Mental Health*, edited by James R. Greenley and P. Leaf. Greenwich, CT: JAI Press.
- . Forthcoming. "Social Status and the Measurement of Life Stress: Complexities of Assessing Stress Exposure." *Journal of Health and Social Behavior*.
- Turner, R. Jay, Blair Wheaton, and Donald A. Lloyd. 1995. "The Epidemiology of Social Stress." *American Sociological Review* 60:104–25.
- Vega, William A. and Andres G. Gil. 1998. *Drug Use and Ethnicity in Early Adolescence*. New York: Plenum.
- Vega, William A. and Ruben G. Rumbaut. 1991. "Ethnic Minorities and Mental Health." *Annual Review of Sociology* 17:351–83.
- Wheaton, Blair. 1991. "The Specification of Chronic Stress: Models and Measurement." Presented at the annual meetings of the Society for the Study of Social Problems, August, Cincinnati.
- . 1994. "Sampling the Stress Universe." Pp. 77–114 in *Stress and Mental Health: Contemporary Issues and Prospects for the Future*, edited by William Avison and Ian Gotlib. New York: Plenum.
- Williams, David R. 1990. "Socioeconomic Differentials in Health: A Review and Redirection." *Social Psychology Quarterly* 39:887–903.
- . 1997. "Race and Health: Basic Questions, Emerging Directions." *Annals of Epidemiology* 7:322–33.
- Williams, David R. and Chiquita Collins. 1995. "U.S. Socioeconomic and Racial Differences in Health: Patterns and Explanations." *Annual Review of Sociology* 21:349–86.
- Williams, David R., Michael J. Spencer, and James Jackson. 1999. "Race, Stress, and Physical Health: The Role of Group Identity." Pp. 71–100 in *Self, Social Identity, and Physical Health*, edited by R. J. Contrada and Richard D. Ashmore. New York: Oxford University Press.

- Williams, David R. and Ruth Williams-Morris. 2000. "Racism and Mental Health: The African American Experience." *Ethnicity and Health* 5:243–68.
- Williams, David R., Yan Yu, James S. Jackson, and Norman B. Anderson. 1997. "Racial Differences in Physical and Mental Health: Socioeconomic Status, Stress and Discrimination." *Journal of Health Psychology* 2:335–51.
- Wilson, William Julius. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago: University of Chicago Press.

John Taylor is assistant professor of sociology and social epidemiology at Florida State University. Much of his current research examines the determinants of ethnic and socioeconomic differences in mental and physical well-being. His additional research focuses on gender and social status differences in mattering to others.

R. Jay Turner is professor of sociology and social epidemiology at Florida State University. His current research program includes two studies supported by National Institute of Drug Abuse Grants: *Drug Use Trajectories: Racial/Ethnic Contrasts (1997–2002)* and *Physical Disability, Mental Health, and Drug Abuse (2000–2005)*.