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Perceived Discrimination, Race and Health in South Africa

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Abstract

To assess the levels of perceived acute and chronic racial and non-racial discrimination in South Africa, their association with health, and the extent to which they contribute to racial differences in physical and mental health, data were used from a national probability sample of adults, the South African Stress and Health Study (SASH). All Black groups in South Africa (African, Coloured and Indian) were two to four times more likely than Whites to report acute and chronic experiences of racial discrimination. Africans and Coloureds report higher levels of ill health than Whites, but acute and chronic racial discrimination were unrelated to ill health and unimportant in accounting for racial differences in self rated health. In contrast, all Black groups had higher levels of psychological distress than Whites, and perceived chronic discrimination, was positively associated with distress. Moreover, these experiences accounted for some of the residual racial differences in distress after adjustment for socioeconomic status. Our main findings indicate that, in a historically racialized society, perceived chronic racial and especially non-racial discrimination acts independently of demographic factors, other stressors, psychological factors (social desirability, self-esteem and personal mastery), and multiple SES indicators to adversely affect mental health.

Keywords

South Africa; Perceived Discrimination; Race; mental health; distress; South African Stress and Health Study (SASH)

Goffman (1963) indicated that the “undesired differentness” of a stigmatized category such as race can lead others to both turn away from and actively discriminate against the stigmatized.

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Thus, discrimination is an important component of stigma (Link & Phelan, 2001), and where social inequalities exist, it is a key feature of intergroup relationships and serves to reinforce the symbolic boundaries that separate social groups from one other (Jackman, 1994). Discrimination based on race has received extensive research attention and there is continuing scientific interest in the pervasiveness and persistence of racial discrimination for racially stigmatized groups (Blank, Dabady, & Citro, 2004). Qualitative descriptions of these experiences suggest that they incorporate important elements of stressful situations that are known to be predictive of adverse changes in health (Mohutsioa-Makhudu, 1989; Essed 1991; Feagin 1991). Health researchers are also examining the extent to which perceptions of discrimination, racial and non-racial, are stressful life experiences that can adversely affect health (Harrell et al. 1998; Dion 2001; Clark, Anderson, Clark, & Williams, 1999). South Africa has a historical legacy of deeply entrenched racial discrimination (James & Lever, 2000). The institutionalized social inequality of apartheid and its legacy has been decisive for a broad range of outcomes in South African society (Seidman, 1999; Moller, 1998). Several researchers have noted that the oppressive nature of apartheid in South Africa had pervasive negative consequences for mental health (Dommissie, 1986; Mohutsioa-Makhudu 1989; Turton & Chalmers, 1990; Straker 1987). However, there is limited population-based data on the current levels of and racial differences in the subjective experience of discrimination in post-Apartheid South Africa and the extent to which such experiences are consequential for health and racial disparities in health.

Discrimination and Health

Equity theory has long noted that unfair treatment can lead to negative emotional reactions and psychosomatic symptoms (Adams & Berkowitz, 1965). Research also suggests that both the psychological and physiological correlates and consequences of discrimination are similar to those of other psychosocial stressors (Dion, 2001; Clark et al., 1999). Laboratory studies have assessed the physiological and affective reactions of African Americans (or blacks) to mental imagery and videotaped vignettes of discriminatory behavior. They have found that such exposure to racist provocation leads to increased cardiovascular and psychological reactivity (Harrell, Hall, & Taliaferro, 2003). Other laboratory studies in Toronto, Canada indicate that the experimental manipulation of unfair treatment, unrelated to race, induces stress and adversely affects psychological well-being for multiple social groups such as Jewish undergraduate males, Chinese students, and undergraduate women (Dion 2001).

Recent reviews have identified over 135 empirical studies that have examined the association between perceived racial/ethnic discrimination and some indicator of health (Krieger 1999; Paradies 2006a; Williams, Neighbors, & Jackson, 2003). The majority of these studies found a positive association between discrimination and indicators of morbidity. Scales of nonspecific distress, followed by general self-report measures of health status have been the most common outcomes examined. Most of the early studies of discrimination and health used cross-sectional data but some recent prospective studies continue to document an adverse association between discrimination and health (Schulz, Gravelle, Williams, Israel, Mentz, & Rowe, 2006; Lewis, Everson-Rose, Powell, Matthews, Brown, Karavolos, et al., 2006). Some recent studies have also examined a broader range of outcomes including subclinical cardiovascular disease (Lewis et al., 2006) and low birth weight and pre-term deliveries (Collins, David, Handler, Wall, & Andes 2004; Mustillo, Krieger, Gunderson, Sidney, McCreath, & Kief, 2004). Importantly, some studies have found that perceptions of discrimination account for some of the racial differences in health (Williams, Yu, Jackson, & Anderson, 1997; Ren, Amick, & Williams, 1999; Mustillo, et al., 2004; Harris, Tobias, Jeffreys, Waldegrave, Karlsen & Nazroo, 2006).

Social contexts, including national ones, can affect both the levels of racial bias and its consequences for health. Most of the early studies of perceived discrimination and health were U.S.-based, with a strong focus on the black experience in America. However, the emerging literature suggests that perceived discrimination is a neglected stressor that adversely affects the health of Hispanics, Asian Americans, American Indians, and Whites (Williams, Neighbors & Jackson 2003; Paradies 2006a). Recent reviews also document that perceived discrimination is adversely related to health for immigrants in Canada, the Netherlands Finland Ireland, England and Wales (Williams, Neighbors & Jackson 2003; Paradies 2006a). A recent national study in New Zealand found that reported racial discrimination was positively related to self-rated ill health, lower physical functioning, cigarette smoking and cardiovascular disease (Harris et al., 2006), and, a study of indigenous Australians found that perceived discrimination was adversely related to depressive symptoms, self-assessed health and homocysteine levels (Paradies 2006b).

Some evidence suggests that perceptions of racial and non-racial discrimination are similarly related to health (Williams, Spencer, & Jackson, 1999.; Kessler, Mickelson, & Williams, 1999). Similarly, a recent report from the Whitehall study in the UK found that a generic measure of perceived unfairness was inversely related to occupational grade and was an independent predictor of incident coronary events (De Vogli et al. 2007). One recent U.S. study documented that although perceived everyday discrimination attributed to race was unrelated to coronary calcification (CAC) for Black women, a combined measure capturing perceived racial and non-racial discrimination was positively associated with CAC (Lewis et al., 2006). In this study, both racial and non-racial discrimination were unrelated to CAC among White women. These findings suggest that the generic perception of unfairness may be pathogenic and it is important to capture both racial and non-racial discrimination, especially when studying socially disadvantaged groups. At the same time, the findings are not uniform. One U.S. study found that Black women who attributed chronic discrimination to race demonstrated greater blood pressure reactivity than those who attributed them to other social status categories (Gyll, Matthews, & Bronberger, 2001).

Discrimination and Health in South Africa

Consistent with its use by the Black Consciousness Movement in South Africa during the 1960s, this article uses the term Black to refer to all of the historically marginalized groups in that society --Africans, Coloureds, and Indians (Subreenduth 2003). Coloured, a term historically and currently, fraught with conflict and contradiction refers to a heterogeneous racial group, primarily consisting of persons of mixed racial ancestry (Goldin 1987). During the apartheid era in South Africa, there was marked racial stratification with Whites at the top, Africans at the bottom and Indians and Coloureds, in the middle. Along with Africans, Coloureds and Indians experienced systematic discrimination compared to Whites.

South African researchers have long described the multiple ways in which the deeply entrenched differential allocation of material and socio-political privileges based on race could have pervasive adverse consequences on the health of Black groups. Straker (1987) described the “continuous traumatic stress” of apartheid. Other researchers documented the multiple institutional and interpersonal mechanisms by which apartheid could adversely affect the mental health of Blacks (Dommissie, 1986; Mohutsioa-Makhudu, 1989; Turton & Chalmers 1990). In the post-apartheid era, research continues to document large racial differences in health in South Africa and to suggest the legacy of institutional and interpersonal racism as a contributing factor (Moller 1998; Burgard 2002). One recent study used a micro-simulation-based decomposition framework to understand the multidimensional contribution of racism to racial disparities in self-rated health (Charasse-Pouele & Fournier 2006). It found that

discrimination, primarily through structural differences in SES is a major source of racial disparities in health.

There have been few recent population-based studies in South Africa that have assessed the levels of perceived discrimination and its potential health consequences, and there is reason to believe that assessing perceived racial discrimination will be challenging. The discourse of race is changing in South Africa with the expression of blatant racist beliefs by Whites declining (Duckett 1991), and despite broad recognition by Blacks of the persistence of racism, there is a growing reluctance to explicitly discuss it (Subreendath, 2003). While South Africa remains a racially stratified society, the transition to a multiracial democracy in 1994, has produced among some, a sense of solidarity and an emphasis on a unified national identity that downplays references to race (Moller 1998; Carrim 2000). For example, a study of university students found widespread minimizing of overt references to race, both as a source of personal identity and as a determinant of differential life chances (Franchi & Swart 2003). Moreover, South African Whites perceive considerable constriction in socioeconomic opportunities and exaggerate the difficulties that they will have in securing employment opportunities in post-apartheid South Africa (Moller 1998; Franchi & Stewart, 2003). South African Whites loss of political supremacy appears to have led to their increased perception of blocked opportunities (Miller, 1998).

The changing discourse of race in South Africa has implications for the assessment of perceived racial discrimination (Carrim 2000). Research in the U.S. indicates that the language utilized in the measurement of discrimination affects the reported levels. Specifically, making race salient in the assessment of discrimination leads to response bias compared to the use of neutral terminology (Gomez & Trierweiler, 2001). There is also the related challenge of attributional ambiguity (Williams, Neighbors & Jackson, 2003). Respondents are often uncertain of the reason (or attribution) for a negative interpersonal experience. Building attribution into the question is likely to underestimate discriminatory encounters for which the attribution is uncertain. Thus, asking questions about both racial and non-racial discrimination can capture all of the potential pathogenic phenomenon of perceived unfairness, and also reduce some of the measurement error that can occur if questions are asked only of racial discrimination.

Unresolved Questions

The study of perceived discrimination and health is at an early stage. Our understanding of the conditions under which discrimination is more or less likely to affect health is limited. First, our knowledge is limited regarding the extent to which discrimination affects health independent of other measures of stress. Some evidence suggests that adjustment for other stressors reduces the association between discrimination and health to non-significance (Taylor & Turner, 2002), while other research suggests that discrimination affects health independent of other stressors (Williams et al., 1997). Second, individual dispositions can affect both the perceptions of discrimination and the likelihood of reporting them (Williams, Neighbors, & Jackson, 2003). Accordingly, adjusting reports of discrimination for indicators of social desirability and core psychological factors such as self-esteem and self-efficacy can provide a more conservative estimate of its potential effect. Third, we have limited knowledge of the differential distribution of perceptions of racial and non-racial discrimination in South Africa and about the relative effects of biases based on race versus those attributed to other reasons.

This paper uses national data from South Africa to examine racial differences in the levels of discrimination and the contribution of discrimination to racial differences in health. We will explore how perceptions of racial and non-racial bias combine with other risk factors to affect the self-rated health and psychological distress for multiple racial groups in South Africa. Our research questions are:

1. To what extent are there racial differences in the prevalence of perceived racial and non-racial discrimination?
2. How do perceptions of discrimination relate to self-rated ill health and psychological distress? This will include an examination of: a) how the relationship between perceived discrimination and health varies depending on the attribution (racial versus non-racial); and b) the extent to which the association between perceived discrimination and health is independent of traditional stressors and SES, as well as psychological characteristics such as social desirability, self-esteem and mastery.
3. What contribution, if any, do perceptions of discrimination make in explaining racial differences in self-rated ill health and psychological distress?

METHODS

Sample

The data are from the South African Stress and Health Study (SASH). The SASH study was a national probability sample of 4,351 adult South Africans living in both households and hostel quarters (Williams, Herman, Kessler, Sonnega, Seedat, & Stein, et al., 2004). The unweighted sample was 76% African, 13% Coloured, 4% Indian and 7% White. Hostel quarters were included to maximize coverage of young working age males. The sample was selected using a three-stage clustered area probability sample design. The first stage involved the selection of stratified primary sample areas based on the 2001 South African Census Enumeration Areas (EAs). The second stage involved the sampling of housing units within clusters selected within each EA. The third stage involved the random selection of one adult respondent in each sampled housing unit. SASH interviewers were trained in centralized group sessions lasting one week. The interviews were conducted face to face in six different languages: English, Afrikaans, Zulu, Xhosa, Northern Sotho, and Tswana. Interviews lasted an average of three and a half hours, with many requiring more than one visit to complete. Data were collected between January 2002 and June 2004. The overall response rate was 86%. All recruitment, consent and field procedures were approved by the Human Subjects Committees of the University of Michigan, Harvard Medical School, and by a single project assurance of compliance from the Medical University of South Africa (MEDUNSA) that was approved by the National Institute of Mental Health.

Measures

All measures were coded such that a high score reflects a high level of that variable. Like other stressful experiences, discrimination is multidimensional and acute experiences (discrete, observable) are distinguished from chronic (ongoing) ones (Cohen, Kessler & Gordon 1995). Acute discrimination is a count of the number of nine major experiences of *unfair treatment* in domains such as employment, education, housing and interactions with the police that respondents had experienced over their lifetime (Kessler et al., 1999; Williams, et al., 1997). Experiences attributed to race/ethnicity (racial discrimination) were distinguished from those attributed to other social status categories (non-racial discrimination). In the multivariate analyses, those reporting zero experiences of acute discrimination were compared to those reporting one, and more than one such experience. Chronic discrimination was assessed by an expanded version of the everyday discrimination scale (Williams, et al., 1997). The original scale contained nine items that assessed the frequency (on a 5-point scale from 'almost every day' to 'never') of exposure to chronic discrimination, such as being treated with less courtesy and respect or receiving poorer service than others in restaurants and stores. A tenth item, being followed around in stores, was added and the ten items were summed to create a racial and non-racial everyday discrimination scale. The alpha for the everyday racial discrimination scale was .84 overall, and .84 for Africans, .82 for Coloureds, .81 for Indians and .78 for Whites.

The alpha for the everyday non-racial discrimination scale was .91 overall, and .91 for Africans .91 for Coloureds, .88 for Indians and .88 for Whites

Life events, relationship stress and domestic violence were three types of commonly occurring stressors that were with the WHO's World Mental Health Initiative's Survey (Kessler & Ustun, 2004.) assessed. Life events are a count of how many of 12 experiences (such as the death of a loved one, criminal victimization and unemployment) that respondents experienced during the twelve months before being interviewed. Relationship stress is a count of the number of respondents' reports of serious, ongoing disagreements or problems getting along with any family members, any close friend, or anyone at work in the past year. Domestic violence perpetration was assessed by the frequency with which the respondent had slapped or hit, thrown something at, or pushed, grabbed or shoved her/his current or former spouse or partner. Domestic violence victimizations was assessed by the frequency with which the respondent had been a recipient of the aforementioned actions from her/his current or former spouse or partner. Domestic violence is an important contributor to health problems in South Africa (Jewkes, Levin & Penn-Kekane, 2002).

Three psychological factors were assessed. Social desirability was a 10-item scale that captured a respondent's tendency to select a socially acceptable response, even though it may not be true (Zuckerman, Kuhlman, Joireman, Teta, & Kraft, 1993). Respondents indicated whether questions such as the following were true or false for them: 'I have always told the truth', 'I have never been bored', 'I always win at games', 'I have never lost anything.' The scale is constructed by counting the number of responses reported as true. The alpha for the scale was .72 and it was comparable for the four racial groups. Mastery, a measure of self-efficacy, was assessed by a 4-item version of Pearlin's mastery scale (Pearlin, Lieberman, Menaghan, & Mullan, 1981) in which respondents indicated how strongly they agreed or disagreed with the following: that there is no way they can solve some of the problems they have, that they have little control over what happens to them, that they often feel helpless in dealing with the problems of life, and that there is little they can do to change many of the important things in their lives. The alpha for this scale was .82 and it was comparable across the four racial groups. Self-esteem was assessed by a 4-item version of Rosenberg's (1979) self-esteem scale allowed respondents to report their agreement with the following: taking a positive attitude toward themselves, feeling satisfied with themselves, feeling useless at times, and thinking that they are no good at all. The alpha for this scale was .56 overall (.54 for Africans, .58 for Coloureds, .50 for Indians and .66 for Whites).

Racial categories assessed were Africans, Coloureds, Indians and Whites. Education, measured in years of schooling, employment status and total household income (in Rands) were three traditional indicators of SES utilized. Two additional SES measures, material resources and wealth were included in an attempt to capture at least some of the institutional aspects of racism in South Africa (Turton & Chalmers, 1990). The policies and procedures of Apartheid created marked racial differences in access to economic resources and the material conditions of life. Material resources was a count of the total number of seven household appliances (refrigerator, vacuum cleaner, television, HI-FI or music center, microwave oven, washing machine and VCR), seven household resources (running water, domestic servant, automobile, flush toilet, built-in kitchen sink, electric stove or hotplate, and working telephone) that respondents owned and three financial activities that they engaged in (shopping at supermarkets, using financial services such as a bank account, automatic teller machine card or credit card and having an account or credit card at a retail store. The alpha for this scale was .92 overall (.89 for Africans, .89 for Coloureds, .74 for Indians and .70 for Whites). Second, wealth was assessed by having respondents report if there would be any money left over if all of their assets were sold and all of their debts paid off. Respondents reporting some wealth, were contrasted with those reporting no or negative wealth and those who refused to provide an answer or indicated that

they did not know the answer to the question. Demographic controls used were sex, age, urban (versus rural) residence and marital status.

We used two measures of health status: self-rated ill health and psychological distress. Self-rated ill health is one of the most widely used subjective indicators of general health status in health research. It is based on a single question in which respondents rate their health on a 5-point scale, with 1=excellent and 5=poor. Prior research indicates that this global indicator of health status is a strong predictor of mortality and changes in physical functioning (Idler & Benyamini, 1997). Psychological distress was assessed by a 10-item scale that captured how often respondents felt symptoms of distress (e.g., nervous, hopeless, and depressed) in the past 30 days (Kessler et al., 2002). The alpha for this scale was .90 and was comparable across the racial groups.

Data Analyses—In order to account for the stratified multistage sample design, the data were weighted to adjust for differential probability of selection within households as a function of household size and clustering of the data, and for differential non-response. A post-stratification weight was also used to make the sample distribution comparable to the population distribution in the 2001 South African Census for age, sex, and province. The weighting and geographic clustering of the data were taken into account in data analyses by using the Taylor series linearization method in the SUDAAN statistical package. The analyses begin by comparing levels of perceived racial and non-racial discrimination by race. Statistical tests for these descriptive analyses only contrast all other groups with Africans because we were unable to use Whites as the contrast groups because of zero cells on several of the individual indicators of discrimination for Whites. In the multivariate models, all of the Black groups are contrasted to Whites. The basic multivariate analytic tool was ordinary least squares regression. We estimated the following models: Model 1 assessed the association between race and health status adjusted for socio-demographic factors. Model 2 adds three traditional indicators of SES (income, education, employment). Model 3 added acute and chronic racial and non-racial discrimination. We evaluated the mediating effects of perceived discrimination on racial differences in health by using Baron and Kenny's (1986) criteria for mediation. These criteria require (1) a significant association between the independent variable (race) and the dependent variable (health), (2) a significant association between race and the presumed mediator variables (discrimination), (3) a significant association between the mediator (discrimination) and health, and (4) after controlling the mediator, the association between race and health is decreased. The fourth model added other stressors to model 3. This model also allows for evaluating the role of other stress in mediating the association between discrimination and health, and the extent to which discrimination makes an independent contribution to health in the presence of other stressors. A fifth model assessed the extent to which the observed associations are independent of psychological factors (self-esteem, mastery and of social desirability) and a final model added a measure of material resources and wealth.

Results

Table 1 presents descriptive analyses of acute racial and non-racial discrimination by race. For each of the nine indicators it reports the percent of persons who reported ever having that experience, with a summary measure indicating the percent of persons ever having at least one discriminatory experience. Three percent of Whites report having at least one acute experience of racial discrimination overall with Africans and Coloureds being twice as likely and Indians three times as likely as Whites to report an experience of racial discrimination. There were no racial differences in the overall level of non-racial discrimination with 14% of Africans, 11% of Coloureds, 20% of Indians and 17% of Whites reporting at least one experience of non-racial discrimination. For each racial group, the levels of non-racial discrimination were at least twice as high as racial discrimination. In terms of specific incidents, the highest levels of both

racial and non-racial discrimination were in the employment domain and in encounters with the police.

Table 2 presents data on everyday discrimination. Overall 8% of Africans, 6% of Coloureds, 6% of Indians and 2% of Whites report that at least one experience of everyday racial discrimination occurred monthly or more often. As with acute discrimination, levels of non-racial discrimination were much higher than racial discrimination for each racial group, with Africans (23%) and Indians (21%) reporting twice the level of non-racial discrimination as Coloureds (11%) and Whites (9%). Thus, although most of the chronic discrimination was not attributed to race, there were relatively high levels of chronic exposure to minor character assaults.

Discrimination and Self-Rated Ill Health

Table 3 presents the relationship between perceived discrimination, race and self-rated ill health. In the demographics adjusted model, Africans and Coloureds reported higher levels of ill health than Whites. In Model 2 when SES variables were added, the coefficients for both Coloureds and Africans are reduced by about 43%. The higher level of ill-health for Coloureds was no longer significant while that of for Africans remained significant. In Model 3, both acute and everyday *racial* discrimination were not significantly related with self-rated ill health. However, those reporting more than one experience of acute non-racial discrimination had significantly higher levels of ill health than those who reported none. Everyday non-racial discrimination was also positively related to ill health. The addition of the discrimination measures in Model 3 made only a negligible contribution to the explained variance and had virtually no effect on race. When other stressors were considered in Model 4, only life events were positively related to ill health and the addition of stress mediated a small part of the relationship between race and ill health. In addition, when general stressors were adjusted for, the coefficient for acute non-racial discrimination was reduced to non-significance but chronic non-racial bias was reduced slightly but remained significant. Social desirability was unrelated to ill-health but both self-esteem and mastery were significantly and inversely related to ill health. The consideration of the psychological factors reduced the coefficients for non-racial discrimination and life events only slightly, but reduced the effect of race to non-significance. In the final model material resources and wealth were unrelated to ill health, but the coefficients for everyday non-racial discrimination and life events remained significant.

Table 4 presents the relationship between perceived discrimination and psychological distress. In Model 1, adjusted for demographics, Africans, Coloureds and Indians had higher levels of distress than Whites. Adjustment for SES variables reduced the association between race and distress by 32% for Africans and by 43% for Coloureds, but both groups continued to have significantly higher levels of distress than Whites. Adding discrimination Model 3 increased the explained variance by 11%. Acute non-racial discrimination and both racial and non-racial everyday discrimination were positively related to distress. The coefficients for both race and education were reduced (each by about 25% from the previous model) but remained significant when discrimination was considered. Model 4 also shows that both stressful life events and relationships were positively related to psychological distress. The addition of stress increased the explained variance by 4% and the consideration of stress produced an additional reduction in the coefficients for race. However, Africans continue to report higher levels of distress even after a broad range of stressors are considered. Social desirability was unrelated to distress but both self-esteem and mastery were inversely related to distress. When these psychological factors were considered in Model 5, race was unrelated to distress and acute non-racial discrimination was reduced to non-significance, while acute racial discrimination remained inversely related to distress. However, the inclusion of psychological factors had only minimal effects on the coefficients for chronic racial and non-racial discrimination. Similar to the

findings for self-rated ill health, the addition of material resources and wealth in the final model did little to change the previously observed patterns. Instructively, the standardized coefficients for the stress variables – chronic racial and non-racial discrimination, life events and relationship stress are among the largest in the final model.

Discussion

In a nationally representative sample of South Africans we found that the historically racially stigmatized groups, Africans, Coloureds and Indians, reported higher levels of perceived racial discrimination than Whites. For non-racial discrimination, there was not a clear pattern of variation by race. Levels of discrimination were also consequential for health. Perceived racial and non-racial chronic discrimination were inversely related to psychological distress and partially accounted for racial differences in distress. The association was weaker for self-rated health with only chronic non-racial discrimination being predictive of ill-health. Moreover, perceived discrimination did not play a role in accounting for racial differences in self-rated ill health. Our findings for discrimination suggest that irrespective of attribution, the persistent enduring aspects of discrimination (captured by chronic everyday discrimination) are more consequential than acute discrimination for health and that the adverse effects of perceived chronic discrimination are independent of conventional measures of stress, psychological factors and SES. In addition, the consistent positive relationship between other stressors, especially life events and our indicators of morbidity suggests that the pathogenic effects of perceived chronic discrimination are likely similar to but independent of standard indicators of stress. These data are consistent with a growing body of research from multiple societies suggesting that perceived discrimination is a risk factor for health.

It is instructive that racial differences in health and the association between perceived discrimination and health were stronger for psychological distress than for self-rated ill health. Psychological distress may be an especially important indicator of personal and collective suffering in low and middle income countries (Kirmayer, 1991; Kleinman & Benson 2006). As opposed to a measure of clinical disorders, which represents only the most severe cases and can recast human suffering and affliction into medical pathology (Kleinman & Benson, 2006), psychological distress can capture psychosocial distress on a continuum and can more clearly reveal the mental health burden of stigma. It also makes sense that more consistent and robust associations were evident for chronic everyday discrimination than for acute discrimination. In the larger literature on stress, chronic stressors tend to be more strongly related to health than acute stressors (Cohen, Kessler & Gordon, 1995).. Our measure of acute discrimination assessed lifetime exposure to bias, with some of the reported experiences occurring many years ago. In contrast, the chronic measure of discrimination not only reflected recent experiences that were more contemporaneous with the assessment of mental health status, but captured experiences that are likely to include potentially stigmatizing assaults on one's sense of personhood (treated with less courtesy and respect than others, treated as if inferior, unintelligent and dishonest) (Essed 1991). At the same time with cross-sectional, observational data, chronic discrimination is especially vulnerable to multiple sources of confounding with self-reported measures of health. Accordingly, it is noteworthy that the association between chronic discrimination and health remained robust after adjustment for other stressors, SES and multiple psychological factors.

The overall levels of racial discrimination reported in South Africa were low. Ten percent or fewer Africans, Coloureds and Indians reported at least one major experience of racial discrimination or an experience of everyday discrimination once per month or more frequently. In comparison, a study in Australia found the 70% of a sample of 312 indigenous Australians reported one experience of racial discrimination (Paradies 2006b). Similarly, in a national study of New Zealand, 34% of the Maori, 28% of Asians and 25% of Pacific peoples reported

experiencing at least one form of racial discrimination in their lifetime (Harris, et al 2006). National data for the U.S. finds that 31% of Whites and 48% of Blacks report lifetime exposure to at least one experience of acute racial or non-racial discrimination (Kessler et al. 1999). Several factors may account for the relatively low levels in South Africa. First, there is considerable ambiguity inherent in both the perception of discrimination and in identifying the motivation behind it (Williams, Neighbors, & Jackson, 2003). Our measurement approach attempted to capture the full range of exposure to unfair treatment experiences recognizing that there may be some classification error in attribution. In contrast to the U.S. where disadvantaged racial groups report higher levels of racial than non-racial discrimination (Kessler et al. 1999), levels of non-racial discrimination, across all racial groups, were much higher than for racial discrimination in South Africa, suggesting the possibility of at least some South Africans under attributing experiences of perceived discrimination to race.

Second, some limited evidence suggests that in times of hope and optimism stigmatized racial groups report lower levels of discrimination than at other times. A national panel study that followed African Americans between 1979 and 1992, found that the lowest level of racial discrimination and the highest level of optimism about race relations was during 1988 -- the year that Jesse Jackson, an African American male was running the most successful presidential campaign ever by a Black person (Jackson, et al., 1996). It is possible that the rise of Nelson Mandela and his government to power, combined with the national reconciliation efforts of the Truth and Reconciliation Commission in South Africa (Stein, 1998) could have lead some South Africans to be optimistic about race relations and create normative pressures against interpreting ambiguous experiences through a racial lens. There is evidence of post-election euphoria in South Africa in 1994, but it appeared to have lasted for only 18 months (Miller 1998). Accordingly, the low levels of discrimination by Blacks in South Africa may be driven less by declines in the perception of discrimination and more by discomfort in making overt references to race (Subreendath, 2003; Moller 1998; Carrim 2000; Franchi & Swart 2003). Third, levels of discrimination are in part a function of the opportunities for inter-racial interaction, especially as equals (Jackman, 1994). Given the continuing high levels of residential segregation in South Africa, and the marked racial differences in SES, most Blacks in South Africa may have relatively few opportunities to interact with Whites as equals. Importantly, the low levels of reported discrimination in South Africa should not be interpreted as evidence of the absence of racism. A study in the early 1990s in a racially diverse neighborhood in South Africa found that although there were high levels of racial tolerance and few overt acts of racism, many residents, especially Whites expressed racist sentiments (Morris 1999). Fourth, it is also possible that the low levels of discrimination are related to the measurement strategy utilized. We used an approach that attempted to be sensitive to the current tendency to downplay race in South Africa. However, we are not aware of the optimal approaches to assess discrimination in South Africa or elsewhere (Paradies, 2006). Given that alternative approaches to measuring discrimination could have yielded different results, our findings must be viewed with caution and in need of replication.

Our findings also point to important areas of future research. First, in our analyses, all non-racial types of discrimination were collapsed into a residual non-racial category. We need to understand the extent to which the psychological consequences of perceived discrimination vary by the domain in which stigmatization occurs and by the psychological centrality of that social identity to the individual. Discrimination based on gender, age and physical appearance were other categories to which respondents frequently attributed experiences of unfair treatment. Future research by ourselves and others could profitably disaggregate the non-racial discrimination category to shed more light on how the association between racial discrimination and health compares to those of other forms of discrimination. Second, our analyses have not attended to factors that might buffer the negative effects of discrimination on health. Research is needed to identify the social and psychological resources that stigmatized

groups mobilize to cope with discrimination. Third, we need to better understand the reported levels of racial and non-racial discrimination reported by Whites in South Africa. The observed levels are consistent with those reported by Whites in the U.S. (Kessler et al. 1999) and with South African research that suggests that Whites' opposition to affirmative action leads to unrealistic fears regarding their future economic opportunities (Franchi & Swart, 2003). Nevertheless, given the marked racial disparities in wealth and privileges, the relatively high level of non-racial discrimination reported by South African Whites is striking. We found that Whites reported significantly higher non-racial discrimination than Africans on two items: having been unfairly denied a promotion and receiving poorer service from someone such as a plumber or car mechanic than was worse than what others get.

Fourth, our findings highlight the need for future research that would shed light on the complex ways in which social factors contribute to different indicators of health status. The demographic, SES, discrimination, stress and psychological variables considered completely explained racial variations in both self-rated health and psychological distress but the relative contribution of specific variables were very different across the health outcomes. Age, gender, self-esteem, mastery, life events and education were the strong predictors for self-rated health, while chronic racial and non-racial discrimination, life events, relationship stress, self-esteem and mastery were the strong predictors for psychological distress.

Fifth, we need to better understand the phenomena of discrimination in all of its complexity. This paper focused on *perceptions* of individual discrimination – an important consequence of stigma. However, individual discrimination is only one form of discrimination that is produced by stigma (Link & Phelan, 2001). A particularly pathogenic form of discrimination can occur when stigmatized groups recognize that others respond to them based on their acceptance of negative societal stereotypes (Link & Phelan, 2006). Research on stereotype threat suggests that the internalization of negative stereotypes adversely affects academic performance among Blacks in the U.S. (Steele, 1997). Other research with U.S. Blacks indicates that internalized racism (the acceptance of negative racial stereotypes of Blacks as true), is associated with higher levels of psychological symptoms and substance use (Williams & Williams-Morris, 2000; Jones, 2000). Research suggesting that at least some South African Blacks may have internalized racist ideology that was pervasive during apartheid (Subreendath, 2003; Finchilescu & de la Rey, 1991) indicates that this may be an area deserving of research attention in South Africa. Relatedly, structural discrimination, in which policies and procedures deny rewards and resources to stigmatized groups, can also adversely impact SES and physical and mental health (Williams & Collins, 2001). Low levels of interpersonal discrimination would not be expected to shield Blacks from the daily stress of living in economically deprived conditions. Recent research from South Africa suggests that institutional discrimination is indeed a critical determinant of health (Charasse-Pouele and Fournier 2006). We included indicators of material resources and wealth to capture at least some of these aspects of institutional racism but, did not find that they made an incremental contribution over the traditional indicators of SES. Future research needs to attend to how to best capture the role of socioeconomic conditions and the continuing legacy of the institutional dimensions of racism in South Africa.

Research that seeks to capture the full burden of institutionalized and interpersonal racism in South Africa should also require assessing politically motivated violence over the life course and the potential intergenerational effects of racism. Research on historical trauma and its effects on the health of American Indians highlight the importance of assessing these dimensions of racism (Brave Heart & DeBruyn, 1998). The term historical trauma is used to describe the cumulative psychological wounding that American Indians and other indigenous people experienced from European colonizers due to the history of genocide, systemic political oppression and other atrocities that these groups experienced. Assessment instruments with

good psychometric properties have been developed to assess historical trauma and research is finding that historical trauma is related to multiple health outcomes (Whitbeck, Adams, Hoyt, & Chen, 2004). This research is similar to studies of other generational group traumas, including studies of the health consequences of the Jewish Holocaust on survivors and their descendants (Brave Heart & DeBruyn, 1998). Given South Africa's history of racial-political violence, and mass residential relocations, assessing the potential effects of historical trauma seems especially appropriate.

There are several limitations of our analyses. First, our data are cross-sectional and shed no light on the temporal ordering of the association between perceived discrimination and health. Second, the assessment of discrimination is based on self report and vulnerable in cross-sectional analyses to confounding with the dependent variable. Third, although our questionnaire in South Africa was carefully translated and back-translated with the assistance of local language experts, we cannot be certain that all our constructs were equivalent across language or cultural subgroups. Reassuringly, our measures of the reliability of multi-item scales were generally comparable for our four racial groups. However, it is not clear, for example, that reports of episodic, occasional experiences of discrimination by Whites are conceptually, qualitatively and experientially equivalent to perceptions of discrimination by racially stigmatized African, Coloureds and Indians for whom these experiences of bias may reinforce their historic status of marked social inequality and oppression. In spite of these limitations, our exploration of the nature, levels and health correlates of discrimination in South Africa suggests that stigma as reflected in perceived discrimination, may be consequential for mental health and deserves further study in South Africa, as well as in stigmatized populations in other contexts.

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Table 1
Lifetime Prevalence of Perceived Acute Discrimination by Race in the South African Stress and Health Study (SASH) (Estimates are Weighted)

	Racial (%)					Non-Racial (%)		
	African	Coloured	Indian	White	African	Coloured	Indian	White
1. Fired from job	2.7	1.4	3.3	0.0	4.7	4.3	5.3	3.1
2. Not hired for job	2.6	1.5	3.9	2.3	3.7	2.0*	1.2	3.0
3. Not given promotion	0.9	1.9	4.3**	0.5	1.4	2.0	4.1	3.1**
4. Hassled by police	2.9	2.3	3.2	0.0	2.9	2.6	1.3	1.4
5. Discouraged by teacher	0.2	0.9	0.0	0.0	1.8	2.0	2.8	2.4
6. Prevented from renting/ buying home	0.4	0.2	0.0	0.4	0.5	0.1	0.5	1.3
7. Neighbors made life difficult	0.2	0.8*	2.4**	0.0	1.5	1.0	2.0	3.0
8. Denied bank loan	0.3	1.0	0.0	0.0	1.3	0.6	2.1	2.5
9. Received inferior service	0.2	0.4	2.5**	0.0	1.0	1.1	7.9***	6.4***
10. Any of the above	7.6	7.4	10.7	3.1**	14.2	11.1	20.1	16.6

* p ≤ .05;

** p ≤ .01;

*** p ≤ .001; All Other groups are compared to Africans.

Table 2
 Monthly Prevalence of Everyday Discrimination, by Race, in the South African Stress and Health Study (SASH) (Estimates are Weighted)

	Racial (%)				Non-Racial (%)			
	African	Coloured	Indian	White	African	Coloured	Indian	White
1. Treated with less courtesy	3.4	2.9	1.3	0.0	9.1	5.2*	7.7	1.8**
2. Treated with less respect	3.3	2.7	1.8	0.9	10.4	4.4**	5.0	2.9*
3. Received poor service	2.6	1.9	1.3	0.0	6.5	1.7*	2.7	0.7**
4. People act as if you are not smart	2.8	3.4	3.6	1.4	9.9	4.9*	5.7	2.6*
5. People act as if they're afraid of you	1.9	0.7	2.5	0.1**	7.4	3.5*	5.1	3.5
6. People act as if you are dishonest	1.9	2.6	1.4	0.3	7.3	3.2*	3.4	1.2
7. People act as if they are better than you	3.7	3.7	3.2	0.3*	13.8	6.4***	11.8	6.6**
8. You are called names	2.0	0.9	0.8	0.3	7.0	3.9	2.0*	2.1**
9. You are threatened	1.0	0.6	1.1	0.3	4.4	1.9	0.5*	2.0
10. You are followed around in stores	3.0	0.9*	3.0	0.0	5.2	1.6*	8.0	3.1
11. Any of the above	7.8	5.8	6.1	1.7	22.8	11.2***	21.0	9.0***

* $p \leq .05$;

** $p \leq .01$;

*** $p \leq .001$; All Other groups are compared to Africans.

Table 3
Unstandardized and [standardized] Regression Coefficients Predicting Self-Rated III Health, South Africa

Variables	Model 1b(se)	Model 2b(se)	Model 3b(se)	Model 4b(se)	Model 5b(se)	Model 6b(se)	β
1. Sex (Female)	.345(.06)***	.296(.06)***	.299(.06)***	.284(.05)***	.254(.05)***	.258(.05)***	[.094]***
2. Age	.029(.00)***	.022(.00)***	.023(.00)***	.022(.00)***	.022(.00)***	.023(.00)***	[.252]***
3. Married	-.058(.05)	-.037(.05)	-.035(.05)	-.073(.05)	-.039(.05)	-.024(.05)	[-.009]
4. Urban	-.060(.07)	.045(.08)	.050(.08)	.040(.08)	.030(.07)	.073(.08)	[.026]
5. Race (White=omitted)							
a. African	.649(.14)***	.370(.13)**	.353(.13)**	.289(.13)*	.196(.12)	.084(.15)	[.027]
b. Coloured	.509(.16)**	.290(.15)	.306(.15)*	.270(.15)	.196(.14)	.154(.15)	[.036]
c. Indian	.275(.17)	.124(.15)	.117(.15)	.076(.14)	.010(.14)	.010(.14)	[.001]
6. Education		-.064(.01)***	-.061(.01)***	-.058(.01)***	-.046(.01)***	-.037(.01)	[-.106]***
7. Income (log)		-.011(.02)	-.014(.02)	-.008(.02)	.000(.02)	.008(.02)	[.010]
8. Employment		-.189(.05)***	-.185(.05)***	-.151(.05)**	-.109(.05)*	-.064(.05)	[-.022]
9. Acute Racial (none=omitted)							
a. 1			-.043(.13)	-.103(.12)	-.087(.12)	-.079(.12)	[-.010]
b. >1			-.129(.13)	-.211(.13)	-.191(.14)	-.175(.13)	[-.025]
10. Acute Non-Racial (none=omitted)							
a. 1			.060(.11)	-.043(.11)	-.061(.11)	-.046(.11)	[-.009]
b. >1			.192(.10)*	.133(.10)	.104(.10)	.114(.10)	[.021]
11. Chronic Racial Discrim.			.010(.01)	.005(.01)	-.001(.01)	-.001(.01)	[-.001]
12. Chronic Non-Racial Discrim.			.022(.00)***	.018(.00)***	.015(.00)**	.014(.00)**	[.059]***
13. Global Life Events				.083(.01)***	.065(.01)***	.064(.01)***	[.085]***
14. Relationship Events				-.035(.05)	-.052(.04)	-.046(.05)	[-.021]
15. Domestic Violence, Perpetrator				.075(.04)	.054(.05)	.060(.05)	[.030]
16. Domestic Violence, Victim				.083(.04)*	.064(.04)	.055(.04)	[.027]
17. Social Desirability				-.021(.01)	-.021(.01)	-.021(.01)	[-.035]
18. Self-Esteem				-.072(.01)***	-.072(.01)***	-.069(.01)***	[-.132]***
19. Mastery				-.033(.01)***	-.033(.01)***	-.033(.01)***	[-.087]***
20. Material Resources						-.018(.01)	[-.068]
21. Wealth (Some wealth=omitted)						.076(.09)	[.025]
a. No wealth/Debt							

Variables	Model 1b(se)	Model 2b(se)	Model 3b(se)	Model 4b(se)	Model 5b(se)	Model 6b(se)	β
b. Wealth Unknown/Refused/Missing							
Constant	.728	1.902	1.774	1.528	2.855	.122(.08)	[.045]
R ²	.1259	.1560	.1662	.1813	.2151	.2186	[.000]
ΔR^2		.0301	.0102	.0151	.0338	.0035	

* $p \leq .05$;

** $p \leq .01$;

*** $p \leq .001$

Unstandardized and [standardized] Regression Coefficients Predicting Psychological Distress, South Africa

Table 4

Variables	Model 1b (se)	Model 2b(se)	Model 3b(se)	Model 4b(se)	Model 5b(se)	Model 6b(se)	β
1. Sex (Female)	.104(.03)**	.085(.03)*	.103(.03)**	.093(.03)**	.072(.03)*	.072(.03)	-.047* [.008]
2. Age	.001(.00)	-.002(.00)	.000(.00)	.000(.00)	.000(.00)	.000(.00)	[.022]
3. Married	.016(.03)	.024(.03)	.032(.03)	.018(.03)	.033(.03)	.034(.03)	[.011]
4. Urban	-.019(.04)	.028(.04)	.030(.04)	.014(.03)	.015(.03)	.018(.03)	[.041]
5. Race (White=omitted)							
a. African	.405(.05)***	.275(.06)***	.206(.05)***	.150(.06)*	.083(.05)	.074(.06)	[.017]
b. Coloured	.223(.06)***	.128(.06)*	.120(.06)	.100(.07)	.045(.06)	.042(.06)	[.004]
d. Indian	.208(.10)*	.140(.10)	.088(.09)	.074(.09)	.016(.09)	.016(.09)	[-.050]*
6. Education		-.026(.00)***	-.019(.00)***	-.018(.00)***	-.011(.00)*	-.010(.00)	[-.037]
7. Income (log)		-.024(.01)*	-.030(.01)**	-.024(.01)**	-.018(.01)	-.017(.01)	[-.006]
8. Employment		-.065(.03)*	-.071(.03)*	-.038(.03)	-.013(.03)	-.010(.03)	[-.033]*
9. Acute Racial (none=omitted)							[.002]
a. 1			-.070(.07)	-.171(.07)*	-.151(.07)*	-.151(.07)	[.003]
b. >1			.091(.08)	-.013(.08)	.009(.07)	-.151(.07)	[.033]
10. Acute Non-Racial (none=omitted)							[.113]***
a. 1			.136(.05)**	.016(.05)	.009(.05)	.010(.05)	[.216]**
b. >1			.210(.05)***	.127(.05)*	.099(.05)	.099(.05)	[.180]***
11. Chronic Racial Discrim.			.038(.01)***	.030(.01)***	.028(.01)***	.028(.01)	[.088]***
12. Chronic Non-Racial Discrim.			.039(.00)***	.032(.00)***	.030(.00)***	.030(.00)	[.180]***
13. Global Life Events				.089(.01)***	.077(.01)***	.076(.01)	[.059]
14. Relationship Events				.113(.02)***	.109(.03)***	.109(.02)	[-.014]
15. Domestic Violence, Perpetrator				-.007(.04)	-.015(.04)	-.015(.04)	[.030]
16. Domestic Violence, Victim				.079(.04)	.069(.04)	.069(.04)	[-.132]***
17. Social Desirability					.010(.01)	.010(.01)	[-.112]***
18. Self-Esteem					-.039(.01)***	-.039(.01)	[-.009]
19. Mastery					-.024(.01)***	-.024(.01)	[.008]
20. Material Resources							
21. Wealth (Some wealth=omitted)							
a. No wealth/Debt							

Variables	Model 1b (se)	Model 2b(se)	Model 3b(se)	Model 4b(se)	Model 5b(se)	Model 6b(se)	β
b. Wealth Unknown/Refused/Missing						.008(.04)	[.005]
Constant	1.253	1.808	1.591	1.390	2.120	2.112	[.000]
R ²	.0345	.0531	.1638	.2245	.2639	.2639	
ΔR^2		.0186	.1107	.0607	.0394	.0000	

* p ≤ .05;
 ** p ≤ .01;
 *** p ≤ .001