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Perceptions of Race/Ethnicity-Based Discrimination: A Review of Measures and Evaluation of their Usefulness for the Health Care Setting

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Abstract

Background—To assess discrimination in health care, reliable, valid, and comprehensive measures of racism/discrimination are needed.

Objective—To review literature on measures of perceived race/ethnicity-based discrimination and evaluate their characteristics and usefulness in assessing discrimination from health care providers.

Methods—Literature review of measures of perceived race/ethnicity-based discrimination (1966–2007), using MEDLINE, PsycINFO, and Social Science Citation Index.

Results—We identified 34 measures of racism/discrimination; 16 specifically assessed dynamics in the health care setting. Few measures were theoretically based; most assessed only general dimensions of racism and focused specifically on the experiences of African American patients. Acceptable psychometric properties were documented for about half of the instruments.

Conclusions—Additional measures are needed for detailed assessments of perceived discrimination in the health care setting; they should be relevant for a wide variety of racial/ethnic groups, and they must assess how racism/discrimination affects health care decision making and treatments offered.

Keywords

Discrimination; prejudice; delivery of health care; measurement

Widespread racial/ethnic disparities in the quality of health care received, treatments offered, and health outcomes in the U.S. were documented in the Institute of Medicine report, *Unequal Treatment*,[1] but the reasons that racial/ethnic minority groups are likely to

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receive poorer quality care than Whites have not been fully explicated.[2–4] Hypothesized reasons for worse care include differentials in access to health care, actual health status, patient preferences, and provider bias or discrimination.[5,6] Yet, even after controlling for the former three factors, many studies have demonstrated that racial/ethnic minorities are less likely than non-Hispanic Whites to receive equivalent care across a broad spectrum of diseases, including cardiovascular disease, cancer, renal disease, asthma, mental illness, diabetes, and HIV/AIDS, suggesting that discrimination remains a plausible explanation.[1,3–5,7–9] Health care provider behaviors, attitudes, or treatment may vary according to patients' race/ethnicity. To assess such possible racism/discrimination and its effects, reliable and valid measures are needed.[1,3,6,7,10–17]

Three levels of racism have been described in the literature: personally-mediated, institutionalized, and internalized.[18] Personally-mediated racism, the focus of this paper, occurs via differential assumptions about the abilities, motives, and intentions of others according to their race/ethnicity (prejudice) and through differential actions toward others according to their race/ethnicity (discrimination). Racism, whether intentional or unintentional, may adversely affect the treatment of racial/ethnic minority patients in a variety of ways in the health care setting.[13] Health care provider bias can be as subtle as not giving certain patients the full range of treatment options, related to conscious or unconscious provider beliefs that certain patients are less willing to accept or adhere to certain therapies, or are incompetent, deviant, or not likeable.[3,6,9,14,18,19] Bias may also influence providers' clinical judgments[3] or their evaluations of a patient's personal or clinical characteristics.[14] African American physicians have argued that popular misconceptions, inaccuracies, and stereotypes of the psychology of African Americans could lead to misdiagnosis.[10]

Although it may be challenging for patients to discern whether they are experiencing discrimination, a growing body of literature deals with the methodology for measuring discriminatory behavior that is perceptible, and for inferring experiences of racism in a variety of settings, including community, school, workplace, and health care settings.[20,21] Prior reviews of this literature focused on measures that could be used specifically to assess the health effects of discrimination,[21] on comparing explicit versus generic measures of discrimination[22] or on the fewer measures of discrimination available at an earlier time.[20] However, the burgeoning literature on this topic suggests that an updated review of such measures is needed. The need for a new review is also bolstered by the fact that no previous review has evaluated measures' potential utility in the health care setting to assess accurately patients' experiences of racism or discrimination as they relate to the care received. Understanding the available measures is also important because until there is a reliable and valid method for assessing and comparing racism/discrimination across health care environments that can accurately assess the experiences of multiple population groups, it will not be possible to document the presence or degree of racism/discrimination, or to measure changes in its levels subsequent to interventions. Further, numerous new measures have appeared in the literature since the prior reviews; for example, the number of available measures has more than quadrupled since Utsey's 1998 review of six measures.[20] Thus, there is a need for an updated review and specific analysis of how well-developed or suitable such measures are for assessing experiences of racism in the health care environment, as well as the measures' appropriateness for use in different population groups within this setting.

The purpose of this review is to update and summarize the published literature on measures assessing individuals' perceptions of racism/discrimination in their environment (that is, an individual's appraisal of such dynamics in his/her environment or from people with whom s/he interacts) and to examine critically how these measures may apply when studying

perceived racism in the health care setting. We propose that effective measures will assess whether racist/discriminatory events/actions occurred, the extent to which these bothered the individual experiencing them, and whether they affected the individual's interaction with his or her health care provider, including whether the experience affected the patient's view or acceptance of the provider's treatment recommendations,[12] or the provider's offer of care.

In addition, in order to understand the relevance of existing measures to a wide variety of population groups, we evaluate the racial/ethnic orientation of the measures (e.g., anchoring of an instrument to certain racial/ethnic groups' experiences that might be a function of belonging to a certain group). This compilation and critical review of existing measures and evaluation of their characteristics and gaps will be useful for guiding future researchers in their choice of measures to examine the provider contribution to racial/ethnic disparities in health care.

Methods

A comprehensive review of the medical and social science literature from 1966 to January 2007, using MEDLINE, PsycINFO, and the Social Science Citations Index, was conducted to identify relevant articles pertaining to perceived measures of racism or discrimination in the U.S. We sought to identify papers that simultaneously 1) addressed the dimensions of race and ethnicity (for which we used the search terms *race, ethnicity, Blacks, African Americans, Hispanic, Hispanic Americans, Latinos, Asian, Asian Americans, Native Americans, American Indians, ethnic groups, racial stocks, Caucasoid race,* or *Whites*); 2) addressed the issues of discrimination, racism, bias, unfair treatment, or prejudice (for which we used these exact terms); and 3) discussed the development or adaptation of a measure to assess the perceived experience of racism or discrimination (we excluded articles applying previously developed measures in order to capture unique measures). For the latter dimension we used the search terms *measure, measurement, discrimination measure*, and *measures of racial discrimination*. Using all databases, we limited our search to peer-reviewed articles in English that focused on experiences in the United States in human adults. When we conducted this search within Medline we identified 287 articles; after individually reviewing all entries to select only those directly relevant to this review, we constructed a list of 23 relevant papers. Within PsycINFO, the search identified 381 articles, which we pared down to 18 relevant papers. In the Social Sciences Citation Index, we identified 438 papers, retaining 16 for the review. Some of the discarded papers were not relevant or described studies using measures previously reported in other papers or did not provide sufficient information about the measure (e.g., a full list of the included items) to warrant inclusion in our review. In addition, a review of references within each article identified other relevant articles. Only studies that documented the initial presentation or refinement of structured written instruments to measure perceived racism, unfair treatment, or discrimination were included in the final analysis. After eliminating overlap between the citation lists, 34 unique papers describing measures or adaptation of prior measures of racism or discrimination remained.

Analysis

We examined the measures of racism along five dimensions: 1) settings in which measures were developed/used, 2) theoretical frameworks, 3) content of measures, 4) psychometric qualities, and 5) populations studied (summarized in Table 1). For the measures that included items specific to the health care setting, we examined the number of health care-related items and the content of those items. We evaluated whether the measures examined the occurrence of specific racist/discriminatory events, the bothersomeness of the experience, or its effect on the individual's interaction with the provider, including assessments of the effects on the treatment received/recommended/accepted.

Results

As detailed in Table 1, 19 of the 34 articles included in this review describe an original instrument (one not previously introduced in the literature).[2,23–40] Fifteen describe adaptations, modifications, or further testing of previous instruments.[8,12,13,41–52] Instruments ranged in length from 1 item to 109 items.

Settings in which measures were developed/used

The majority of measures were oriented toward experiences of racism/discrimination in general or in the community setting.[2,8,23,26,28,30,31,36,38–42,44,45,48–51] Some measures were developed using student samples or were at least partially oriented toward educational settings[29,32,39,45,50,51] or the workplace.[24,25,33,34,39,50]

Sixteen measures directly assessed at least some dimensions of perceived racism in the health care setting.[8,12,13,23,26,35,36,38,39,42–44,46,48,50,52] One of these utilized the Perceptions of Racism Scale[36] while another used an adaptation of the Schedule of Racist Events,[43] while the others had few items specific to one's specific experience, and requested no information regarding treatment decisions. Two used similar general items.[13,35] Bird had the most detailed list of experiences in health care, however it focused on experiences someone had *ever* had in receiving health care rather than with a specific provider or in a specific care setting.[12] Numerous additional measures were designed to be employed in a variety of settings (such as occupational and educational) including a small number of items addressing experiences in the health care setting.[8,23,26,38,39,44,46,48,50]

Theoretical frameworks

We found 11 measures of perceived racism that were explicitly based on theoretical frameworks.[12,26,28,30–33,39,42,45,50]

The most common theoretical perspective taken by measure-developers was that of Lazarus and Folkman,[54] who stressed the importance of understanding individuals' perceptions of stressful experiences (this perspective was taken by eight of the instruments). Utsey,[20] for example, explicitly based his measures on this stress model. In this theoretical framework, the *interpretation* of (stressful) perceived racist events (major events and daily hassles) is more important than the objective events themselves,[54,55] because different individuals may appraise similar events differently, resulting in different effects on the individual (e.g., anger vs. self-doubt). Therefore, perception of racist events was the most important facet of the experience to assess.

Landrine posits that the *event and appraisal approach* is most appropriate for measuring racist events.[26] Appraisal refers to the assessment of the racist event and the psycho-emotional resources available for dealing with them.[55] According to this author, ways of dealing with racism may influence perceived racism or its effects during the health care encounter. One ecologic framework, found in the work of Auslander, highlighted the importance of health behaviors and beliefs and ways in which individual behaviors and cognition about medical care are influenced by family and community.[42] Therefore, questions pertaining to family and community were included in the instrument in order to decipher perceived racism experienced within this broader context.

Others have assessed race-related stressful life events, explicitly building on Essed's notion of everyday discrimination—the idea that specific incidents of racial bias can affect one's well-being in a manner different from the effects of major experiences of unfair treatment.[12,31] The remaining instruments were presented without reference to a theoretical or conceptual base.

Content of measures

Targets of race-based discrimination—All of the measures of perceived racism recorded in Table 1 assess the individuals' experiences of situations and environments, as this was part of our selection criteria. We refer to this as *individual-as-target* measures; they asked questions about racism directed toward the individual, based on his or her race/ethnic group membership. In addition, one measure also asked about racism experienced by family members.[2]

Time span—Almost all of the 34 measures asked about *any* prior experiences of perceived racism from the target's perspective.[2,8,12,13,23–50] In addition, several used a second reference period for measurement; one used a two-year reference period,[13] three used a one-year reference period,[26,38,39] one used a six-month reference period,[28] one used a three-month reference period[32] and two used a one-month reference period.[2,51] Vines used the following time period for reference: before 20 years of age and during one's 20s.[8]

Responses to racism measured—A person who experiences discrimination responds with emotional or behavioral coping mechanisms, and interprets this experience according to individual belief systems.[38] In measuring experiences of discrimination, it is important to understand someone's response to such experiences (e.g., passive, active, behavioral, and emotional), whether expressed or suppressed, in addition to simply whether someone is exposed to racism, in order to evaluate its impact on the provision of health care and health outcomes. We found that 11 of the 34 publications reviewed asked about the type of responses to racism,[8,26–28,30,38,41,46,48,49] above and beyond specific experiences the individual had had. None, however, inquired about the impact of racism/discrimination on treatment decisions or care received in the health care setting.

Question(s) framed in context of unfair treatment based on other characteristics—Racism can either be measured by asking respondents to indicate specific experiences of racism (e.g., unfair treatment by doctors) or to respond to less focused questions about unfair treatment in general. Seven publications mentioned unfair treatment in the instruments as a reference to racism.[23,24,26,39,46,48,51] In order to compare unfair treatment based on race/ethnicity to unfair treatment because of gender or other factors, respondents to three measures were further asked about unfair experiences based on gender, socioeconomic position or social class, sexual preference, and religion.[23,46,52] Almost all of the measures specifically anchored the questions about discriminatory treatment in the respondent's race/ethnicity rather than gender, sexual orientation, or another trait, with two exceptions.[24,52]

Psychometric evaluation

Over half (19 of 34) of the publications described some form of psychometric evaluation of the measures of perceived racism.[8,12,24,26–33,36,38–40,42,44,47,51] Krieger conducted the most detailed psychometric analyses of any of the measures, showing that the *Experiences of Discrimination* measure had high internal consistency reliability, good test-retest reliability, and correlated with other self-report discrimination measures.[46] Most of the psychometrically evaluated measures had Cronbach's Alpha scores of at least 0.70 in all aspects of the instrument, and thus were shown to have high internal consistency reliability, with the exception of three measures.[8,27,38]

Race/ethnicity of populations studied

The vast majority of studies included African American respondents.[2,8,12,13,23,25,26,28–32,34–52] Fourteen studies included Hispanic respondents.[13,24,27,32–34,39,40,43–46,48,52] Nine

included Asian respondents.[13,32–34,39,43–45,52] In eight studies, the category *Latino* was specified,[35,39,40,43,45,46,48,52] and in two studies Mexican immigrants were included.[27,33] Native Americans were included as a race/ethnic category for four studies.[34,43,45,52]

Measures that pertain to the health care setting

We focused additional analytic attention on the 16 measures that included items for the specific purpose of examining individuals' experiences in the health care setting.[8,12,13,23,26,35,36,38,39,42–44,46,48,50,52] We evaluated the number of items focused on health care experiences, examined the content of the items, and reviewed whether they asked the degree to which the experience was bothersome. Sixteen original measures included at least one item about experiences in obtaining health care, but none included more than 10 items. In general, the content of the items focused on racist attitudes of doctors and other health care workers, and general discriminatory behaviors such as being treated unfairly, being treated with less respect, or being provided poorer service than other patients. McNeilly's measure included an item about being denied hospitalization or medical care because of race/ethnicity and Ryan's measure included an item about receiving less than the best health care because of race.[38,48] These were the only specific questions about the process of medical care in any of the measures. Seven of these measures assessed the bothersomeness of racist/discriminatory treatment.[26,30,37–39,47,48]

Discussion

Our evaluation of the 34 measures identified in the medical or psychological literature that assess individual perceptions of experiences of racism or discrimination in their environment revealed than only 16 such measures were specifically developed for or relevant to experiences in the health care setting. Of these measures, half included only a single item.[23,26,38,39,44,46,48,50] The remaining measures were limited by their sole focus on the experiences of African Americans without inclusion of experiences of other minority groups[12,36,42,43,52] or by their use of questions about only general experiences (e.g., being treated with less courtesy, disrespect, or poorer service).[8,13,35] We view these as significant limitations of the available measures. Without attention to how patients feel about their experiences of racism, or how bothersome the experiences of racism/discrimination were, or how such experiences specifically affect the medical care provided, it is difficult to assess the impact of racism/discrimination on patients' care. Thus, the existing measures are useful to characterize the *general* experiences of patients of color, particularly African Americans, in obtaining medical care, similar to patient satisfaction measures' gestalt ratings of care, but the existing measures cannot inform the field regarding the *specific* impact of racism/discrimination on treatment recommendations or health care decisions.

We recommend that researchers refine and extend existing measures or develop new measures that specifically assess racism in the health care setting and the ways in which it affects medical care, since the ultimate impact of racism/discrimination in this setting differs from that of, for example, experiences in the general community.

Only 8 of the 34 publications reported asking respondents about the kinds of responses, whether active or passive, they had to racism.[8,23,30,38,46–49] We view this as a limitation in the majority of the existing instruments. Without an understanding of individuals' responses to racial discrimination, research cannot evaluate how troubling or significant the experiences were, nor elucidate how such experiences ultimately affected the provision of health care.

According to some researchers, measures should avoid global questions, due to the likelihood of underestimating exposure to experiences of racism.[21] Examples include the

single-item global measure of racism[10,31] such as *ever* experiencing racism and questions using the term *unfair treatment*.[39] These questions may be too vague to apply to the race-based experience of the individual.[23,27,46] Furthermore, the generic experience of unfair treatment can be generalized to all people who have such experiences. We believe it is vital to anchor questions about unfair treatment to the issue of race/ethnicity specific to the health care encounter in order to provide specific information for policy implementation and interventions in the health care setting.

In addition to asking about individuals' experiences, it may be helpful to ask questions about family and/or group experiences, as some measures did.38,50 Individuals may deny racism to avoid feeling that they do not have control over situations, and some prefer not to recall such memories.56–59 A few studies indicate that some minority group members tend to minimize racism and attribute their failure to themselves (internalized racism).[58,60] Consequently, some experiences of racism may be underreported. Since minimizing recall of racism may be psychologically benefficial to the individual,60 future instruments should be designed to be sensitive to the tendency of individuals to deny reports of racism, without undermining it.40

Past research indicates that *everyday discrimination*, often referred to as *chronic exposure* to racism, is a better predictor of health status than major (*acute*) experiences.[12,31,61] Furthermore, chronic perceived racism may affect health care utilization and subsequent health outcomes.[12] Thus, we recommend that measures include assessments of chronic racism and racism in society in general, because including them may provide important information about potential confounders and effect modifiers of the true racism exposure-health outcome relationship in the health care setting.[41]

Current measures of experiences of racism are subject to several methodological pitfalls. For instance, in order to measure accumulated exposure to racism, respondents are generally asked to indicate whether they have experienced racism within a certain time span. Yet, timing of experiences (e.g., *ever* or *past month*) may introduce recall bias since people tend to forget experiences over time.[30,41] It may be more benefficial to include a one-year reference period when asking about racism, according to the literature on stressful life events.[2]

Comparison of measures was challenging because some focused on the frequency while others focused on the severity of racism.[31] People sometimes forget about the intensity of an experience over time,[41,62] and the nature of racism in the U.S. has changed over time as well, becoming less overt.[18,29,30,41,62,63] We recommend asking questions about both subtle and overt experiences of racism, within a specified time frame.

The absence of a clearly elucidated theoretical framework for many of the measures we reviewed is a matter of concern. To be able to measure the existence and extent of racism, it is necessary to have a theory of how racism might occur and what its effects might be. Without such a theory to guide measure development, analysts may conduct studies using invalid measures that do not have interpretable results. Thus, we recommend that future measures be anchored in theory, such as Lazarus and Folkman's view of stress, as described above.

Using the same measure across diverse groups of people can be conceptually and psychometrically problematic. As a result, issues and concerns addressed in the design of an instrument to assess perceived racism may not be relevant to the population being studied, because measures were not developed with this population in mind. Inclusion of information about subgroups within racial/ethnic minority populations may allow for better analysis of cultural influences on perceived experiences of racism.[10] Although nearly half of the

measures reviewed in our collection of publications were psychometrically evaluated, most focused on the experiences of African American populations, and fewer focused on those of other racial/ethnic groups. As the U.S. population becomes increasingly diverse, due in part to the rapid growth of the Hispanic population, it will become imperative to assess accurately the experiences of various groups. We advocate continued development of new measures or enhancement of existing measures to ensure that psychometrically and conceptually valid instruments are applicable to more diverse population groups.

This review was limited in several ways. We focused on perceptions of racism and discrimination instead of more objective assessments (although, to our knowledge, few objective tools are available). Second, patient perceptions may not be the best tool with which to document structural or institutional discrimination, which are often invisible to individual participants. Thus, the fact that racial and ethnic minorities often receive care in poorer quality facilities undoubtedly leads to worse outcomes, but it would be hard for an individual to perceive such differences. Finally, individuals from racial/ethnic minority backgrounds may perceive poor treatment in the health care setting as being a function of race, which may not be the case. Despite these limitations, the data from this review document the state of the art in measuring racism/discrimination in the health care setting, and provide important direction for future measurement development and refinement.

Research on the contribution of provider behavior to disparities in medical care is in its infancy, and there have been few studies specifically designed to test the effect of provider and health care personnel behavior on these disparities.[3] Further study is needed to validate the hypothesis that provider behavior during encounters is independently influenced by patient race/ethnicity.[3] Furthermore, most of the prior measures of perceived racism have focused on the experiences of African Americans, with less emphasis on other population groups. There is an obvious gap in the literature to address the potential contribution of provider behavior to disparities in medical care for American Indians/Alaskan Natives, Asians, and Hispanic populations. Therefore, to meet the challenge of explicitly measuring other racial/ethnic minority populations' experiences, new methods and approaches for measuring perceived racism in health care settings are needed. The information provided by such studies may help to design interventions intended to ameliorate the provider contribution to disparities in care for diverse racial/ethnic populations.

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Table 1

MEASURES OF RACIAL/ETHNIC DISCRIMINATION

Author	Study population	Study purpose and theoretical framework	Measure development and psychometric evaluation	Instrument description and examples of items
1. Amaro H., et al. (1987)	303 Hispanic women professionals via mailing of the National Network of Hispanic Women.	Experience of discrimination, job stress and peer support as related to mental health.	No psychometric evaluation described	109 closed-ended, self-administered questions on work, family, and health. Work characteristics: "Have you ever experienced discrimination?" Yes/No "How often do your peers undermine your performance?" (from (1) never to (5) always)
2. Auslander W.F., et al. (1997) (Healthcare)	158 (55 African American, 103 White) children with diabetes and their mothers or female guardians.	Whether perceived racism in the community was a predictor of mothers' satisfaction with medical care of their children with diabetes. Ecological framework to examine how family and community contexts may predict satisfaction with medical care.	Dressler's Perceptions of Racism Scale (PRS, see #6) was modified to measure perceptions of unfair treatment by workers in multiple settings including health care. The Cronbach's Alpha (CA)[a] coefficient was 0.78	6 questions, on a Likert-type scale Perceptions of unfair treatment on the basis of race by city officials, restaurant workers, health care providers, and school teachers.
3. Bird S.T., et al. (2001) (Healthcare)	76 African American adults (59 women, 17 men) recruited from community centers and churches in northeast Ohio.	Perceived race-based and socio-economic status (SES)-based discrimination in interactions with healthcare providers. Also: Stigma consciousness questionnaire to capture African Americans' perceptions of being stigmatized when interacting with doctors and beliefs about how doctors view African Americans.	Adapted from a measure of "everyday discrimination" by Williams and colleagues (item #24). Stigma consciousness adapted from Pinel. Stigma consciousness questions 1–7: No psychometric evaluation Pinel: CA=0.78	(10 health care related items) Question: "When getting health care, have you ever had any of the following things happen to you because of your race or color?" 1–7 experiences were listed: **1** been treated with less courtesy than other people; **2** been treated with less respect than other people; **3** received poorer service than others; **4** had a doctor or nurse act as if he or she thinks you are not smart; **5** had doctor or nurse act as if he or she is afraid of you; **6** had a doctor or nurse act as if he or she is better than you; **7** felt like a doctor or nurse was not listening to what you were saying. Response format: yes/no Pinel: 7-point Likert-type 10-item questionnaire: ranging from 0=strongly disagree to 6=strongly agree, with 3=neither disagree or agree: 1) Stereotypes that doctors have about Blacks/AAs have not affected me personally; 2) I never worry that doctors will view my behaviors as stereotypically Black/AA; 3) I feel like doctors interpret all of my behaviors in terms of the fact that I am Black/AA; 4) Most doctors do not judge Blacks/AAs on the basis of their race; 5) My being Black/AA does not influence how doctors treat me; 6) I almost never think of the fact that I am Black/AA when I interact with doctors; 7) My being Black/AA does not influence

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				how people of other ethnic groups act with me; 8) Most doctors have a lot more racist thoughts than they actually express; 9) I often think that doctors are unfairly accused of being racist; and 10) Most doctors have a problem viewing Blacks/AAs as equals.
4. Broman, C.L. (1996)	312 African American adults in Detroit.	Krieger 1990 study rephrased to refer only to discrimination in the past three years (see item #11).	No psychometric evaluation described	Study, stem questions were identical to Krieger 1990 measure and the situation varied slightly from Krieger (item #11).
5. Brondolo, et al. (2005) Perceived Ethnic Discrimination Questionnaire—Community Version	Study 1: 301 adults (174 African American, 82 Latino, 18 White, 7 Asian, 4 Native American, 9 mixed, 7 none reported) see in primary healthcare practices in NYC Study 2: 340 Black and Latino college students and adults	Study 1: To assess ethnic discrimination in any group, across varying levels of literacy, while assessing the life experiences of community-dwelling adults. Adaptation of Contrada's PEDQ. Based on Lazarus and Folkman's stress & coping framework Study 2: To develop brief version of Lifetime Exposure Scale	Study 1: Scale development: edited PEDQ (Contrada et al) to reduce vocabulary level and adapt items to experiences of community dwelling adults. Preliminary testing and interviews with small sample, then use in larger sample. Testing for construct validity Study 2: High internal consistency reliability remained; good convergent validity with other measures of racism; good construct validity	Study 1: 70 item questionnaire with 5 scales: Lifetime Exposure Discrimination, Discrimination in the Media, Discrimination Against Family Members, Discrimination in Different Settings (Five point response scale—never happened to happened very often) and Past Week Discrimination (four point scale: never in the past week to 3 or more times in the past week). Internal consistency reliability exceeded CA=.75 for all scales. **BECAUSE OF YOUR ETHNICITY/RACE** … How often … • Has someone said something disrespectful, either to your face or behind your back? • Have others ignored you or not paid attention to you? Study 2: 17 item brief version was created from the 34 item Lifetime Exposure scale from the PEDQ-CV. **BECAUSE OF YOUR ETHNICITY/RACE** … How often … • Have people been nice to you to your face, but said bad things about you behind your back? • Have others hinted that you must not be clean?
6. Clark, R. (2003) (Healthcare)	64 Black college students	Effects of perceived racism and social support on blood pressure reactivity.	Modified version of the 128-item Life Experiences and Stress Scale assessed perceived racism.	Perceived racism measurements: "Overall how much do you think that INTER-ETHNIC GROUP RACISM has had anything to do with any problem you have had related to your _____ in your lifetime?" (Nine domains included: employment, law enforcement and the legal system, money and finances, education, community, family and social relationships, emotional well-being, physical health and medical care, and public assistance.) Responses ranged from 0–4 (0=less than 25% of the time, 4=between 75% and 100% of the time). Perceived racism composite (PRC) reffected the sum of all responses.
7. Clark R., et al. (2006)	217 Black youth	Effects of perceived racism and coping responses on blood pressure.	Modified version of the 9-item Everyday Discrimination Scale to assess racism & 4-item assessment for coping responses	6-point Likert-type scale to assess racism: "In your day-to-day life how often have any of the following things happened to you BECAUSE OF YOUR RACE? [Responses ranged from 0 (almost everyday) to 6 (never).] Example: "you are called names or insulted" 4-item questionnaire used to assess coping response, 4-point Likert-type scale [Responses ranged from 1 (not at all) to 4 (a lot)]: "We are now interested in how you tend to respond to these types of experiences …"

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				1 "Tried to do something about it" **2** "Accepted if as a fact of life" **3** "Realized that you brought it on yourself" **4** "Talked to someone about how you were feeling"
8. Contrada, et al. (2001) Perceived Ethnic Discrimination Questionnaire	361 college students (208 White, 34 Black, 31 Hispanic, 60 Asian)	To develop a measure of discrimination that can be used in all ethnic groups. Based on Lazarus and Folkman's stress & coping framework.	To develop items, drew on conceptual analyses, journalistic descriptions, and qualitative analyses of subjects' descriptions of experiences of ethnic discrimination. Examined internal consistency reliability (all alphas>.70)	22 items assess seven forms of discrimination: verbal rejection, avoidance, exclusion, denial of equal treatment, disvaluing action, threat of aggression, aggression. Four scales with 7 point response (never – very often) developed: disvaluation, threat/aggression, verbal rejection and avoidance. Examples: How often have you been subjected to offensive ethnic comments aimed directly at you, spoken either in your presence or behind your back? How often has it been implied or suggested that because of your ethnicity you must be unintelligent?
9. Corrigan, P., et al. (2003) Modified Schedule of Racist Events (SRE) (Healthcare)	1,824 persons (285 African American, 33 Latino, 97 Native American, 15 Asian, 228 White) with serious mental illness recruited from community mental health centers. Multistate study.	Compared discrimination experienced by persons with mental illness to self-reports of discrimination due to other group characteristics such as race, gender and sexual orientation.	Measures were based on responses to the Discrimination Questionnaire, adapted from the Schedule of Racist Events (SRE). Modifications to SRE: changed focus to examine multiple sources beyond race and used global questions rather than behavior specific. No psychometric evaluation described	(one health care related item) 26 interview-based measures were administered: "Do you believe that you have been discriminated against, for instance because of your mental disability, race, gender, sexual orientation, economic circumstance or some other reason?" The next questions asked yes or no questions about the specific conditions of discrimination (one of which was race). The last questions asked about the type of situations the discrimination occurred (setting, including housing, employment, and education).
10. Dressler, W.W. (1990)	186 25–55 yr. old African Americans.	Effects of lifestyle incongruity (extent to which a high status style of life exceeds an individual's occupational class) on blood pressure. Effects of perceived stressors were evaluated.	No psychometric evaluation described	3 of 16, yes or no, items from the Scale of Chronic Social Role Stressors: **1** "Feel you missed a promotion because you're Black?" **2** "Feel you're not given real job responsibilities because you're Black?" **3** "Feel you are paid less than a White person?"
11. Eccles J.S., et al. (2006)	1480 African American adolescents residing near Washington D.C.	Effects of racial discrimination on academic performance among African American 7th graders (longitudinal study with follow-up after completion of eighth grade)	Data from Maryland Adolescents Development in Context (MADIC) Study Parental perceptions of discrimination at work and in community by peers and teachers: Perceived discrimination by peers: CA: 0.86 Perceived discrimination by teachers: CA: 0.88	5-point scale for perceived discrimination **1** how often do you perceive poorer treatment in stores of restaurants because of your race? (ranging from 1=almost never to 5=almost daily) **2** compared to people of other races, how many opportunities for job advancement did you get at work (15a lot fewer to 55a lot more) Perceived discrimination by peers: examples include frequency they felt they got into fights, were not associated with, and were not picked for particular teams or activities because of their race. Perceived discrimination by teachers: examples include how often they felt their teachers called on them less, graded them more

Author	Study population	Study purpose and theoretical framework	Measure development and psychometric evaluation	Instrument description and examples of items
				harshly, disciplined them more harshly, discouraged them from taking a class, and thought they were less smart because of their race. Questions also assessed adolescents' perception of future racial job and educational discrimination, racial group cultural-capital identity, achievement motivation, future endeavors, academic achievement, and their parents' perceptions of racial discrimination at work and in the community.
12. Green, N.L. (1995) Perceptions of Racism Scale (PoRS) (Healthcare)	African American Childbearing Women: Study A, N=109; Study B, N=136.	Extent racism was a factor in low-birth-weight (LBW) and preterm babies in African American women. Racism experienced: • Affectively (feelings of racism) • Behaviorally (racist actions) • Cognitively (racist thoughts)	Several items from the Business Week/ Harris Poll (Jackson and Collingsworth, 1988) were revised and included in the scale. CA: Study A=088 Study B=0.91	(9 health care related items) 20-item self-report inventory, of which 10 questions concern medical, 2 of life experiences of discrimination. 4-point Likert Type scale ranging from "strongly agree" to "strongly disagree": 1) AA women experience negative attitudes when they go to a White doctor's office; 2) Doctors treat AA and White women the same; 3) Racism is a problem in my life; 4) A pregnant White women is treated with more respect than a pregnant AA woman; 5) I am not affected by discrimination; 6) Sometimes if you are AA in a White doctor's office it's as if you don't belong there; 7) Racial discrimination in a doctor's office is common; 8) In most hospitals, AA women and White women get the same kind of care; 9) Doctors and nurses act the same way to White and AA pregnant women; 10) If an AA pregnant woman comes to a doctor's office, it's assumed that she is on welfare; 11) AAs have the same opportunities as Whites to live a middle class life; 12) Officials listen more to Whites than AAs; 13) If an AA woman and a White woman are applying for the same job they have the same chance of being hired; 14) There has been significant progress in ending racism in the 1980's; 15) A White woman has more opportunities than an AA woman; 16) AA women get pregnant to receive more welfare benefits; 17) AA woman can receive they want as equally as White women; 18) Judges are harder on AAs than Whites; 19) AA pregnant woman have fewer options for health care; 20) Officials listen more to AA's than Whites.
13. Harrell, J.P. (1994) Racism and Life Experiences Scales —Brief Version (RaLES-B)	139 African American/ Latino Adolescents.	Assessed impact of perceived racism on behavior, psychological status, & health outcomes in minority populations. Developed in 1992 to assess the degree to which perceived racism influenced a group of African American and Latino men to participate in a substance abuse treatment program.	CA: Group=0.90 Self=0.88 Validity: Self was significant & positively correlated with immersion stage of racial identity (r=0.26) and adaptive functioning (r=0.18) group was significantly correlated with encounter (r=0.23) and internalization. (r=0.29) subscales of the RIAS-B.	32, 4-point Likert type scale Part 1— Perceived racism-self total How does it affect you? Part 2— Perceived racism-group total How does perceived racism affect your race?
14. Jackson, J.S., et al. (1996)	623 African Americans (national sample).	To investigate the consequences of racism for the physical and mental health of African Americans. Two measures of racism were used: 1) Perception of whites' intentions;	No psychometric evaluation described	Perception of White's intentions response format: Select one of the 3 specified options: Whites want to keep Blacks down; Whites want to see Blacks get a better break; or, Whites just don't care one way or the other about Blacks. Discrimination response format: yes/no

Author	Study population	Study purpose and theoretical framework	Measure development and psychometric evaluation	Instrument description and examples of items
		and 2) A report of racial discrimination experiences.		This measure asked Blacks whether they or their family member were treated badly because of their race in the past month.
15. James, et al. (1994) Workplace Prejudice/ Discrimination Inventory	Study 1: 90 'minority' volunteers from 4 different workplaces (>60% Mexican Americans) Study 2: 46 incumbents in one organization with multiple units (about half Mexican American, half Asian American)	Study 1: To develop a validated inventory to examine perceptions of racial prejudice and discrimination in the workplace, based on social identity theory. Study 2:	Study 1: 16 Items developed by examining literature, including individuals' global perceptions of prejudice/discrimination at work and specific types of discrimination. Factor analyses revealed one primary factor with CA=.90 Study 2: Factor analysis led to one factor, CA=.93	7 item Likert response scale Examples: Where I work members of some racial/ethnic groups are treated better than members of other groups. At work I am treated poorly because of my racial/ethnic group.
16. Johnson, R.L., et al. (2004) (Healthcare)	6,299 White, African American, Hispanic and Asian adults.	Examined: 1) whether racial/ ethnic differences exist in patients' perceptions of primary care provider and general health care system-related bias and cultural competence, and 2) whether these differences are explained by patient demographics, source of care, or patient-provider communication variables.	Data from the nationally representative Commonwealth Fund 2001 Health Care Quality Survey was used. No psychometric evaluation described	(6 health care related items) Physician Bias and Interpersonal Competence Measures (questionnaire Items): 1) Did the doctor treat you with a great deal of respect and dignity, a fair amount, not too much, or none at all? 2) I feel that my doctor understands my background and values. 3) I often feel as if my doctor looks down on me and the way I live my life. (For both 2 & 3: Strongly agree, somewhat agree, somewhat disagree, strongly disagree) Health System Bias and Cultural Competence Measures (questionnaire items): 1) Do you think there was ever a time when you would have gotten better medical care if you had belonged to a different race or ethnic group? 2) Thinking about all of the experiences you have had with health care visits in the last 2 years, have you ever felt that the doctor or medical staff you saw judged you unfairly or treated you with disrespect because of your race or ethnic background? 3) Thinking about all of the experiences you have had with health care visits in the last 2 years, have you ever felt that the doctor or medical staff you saw judged you unfairly or treated you with disrespect because of how well you speak English? (For questions 1–3, yes or no response)
17. Krieger, N. (1990) (Healthcare)	51 African American and 50 White women, aged 20–80, who resided in Alameda County, CA.	To determine the feasibility of asking questions pertaining to race-and gender-based treatment plus response to unfair treatment, and to assess their predictive value regarding self-reported high blood pressure.	No psychometric evaluation described	(one health care related item) Phone interview: Ever experienced discrimination response format: yes/no **1** If you feel you've been treated unfairly, how do you usually respond-do you: "Accept it as a fact of life?" "Try to do something about it?" **2** And if you've been treated unfairly, do you: "Talk to other people about it?" "Keep it to yourself?" **3** Have you ever experienced discrimination, been prevented from doing something, or been hassled or made to feel inferior in any of the following 5 situations because of your race or color?

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				"At school," "getting a job," "at work," "at home," "getting medical care."
18. Krieger, et al. (2005) (Healthcare)	Cohort of working class adults, 159 African American, 249 Latino, and 208 White participants	To assess the validity and reliability of the "Experiences of Discrimination" measure.	Examined scale reliability through factor analysis, testing of internal consistency reliability (CA=.74), test-retest reliability (0.70), and found highest correlation with underlying discrimination construct compared to other self-report discrimination measures	(see items above)
19. Landrine, H., et al. (1996) Schedule of Racist Events (SRE) (Healthcare)	153 African American students, staff and faculty at a university.	Assessed frequency encountered racial discrimination, and degree to which a racist event was appraised as stressful, in past year and lifetime. Theoretical framework: Life Events (Dohrenwend, 1978) and Daily Hassles.	This measure was modeled after the PERI-LES and other similar scales that assess frequency of stressful events in people's lives. Recent discrimination (past year): CA=0.95, split-half reliability: 0.93 Lifetime discrimination: CA=0.95, split-half reliability: 0.91 Appraisal of stress: CA=0.92, split-half reliability: 0.92	(one health care related item) 18 item self-report inventory measures, on a 6-point Likert-type scale, the frequency African Americans have experienced specific racist events in a wide variety of settings, including one item regarding health care setting (e.g., racism experienced by institutions, neighbors, peers, and teachers). Each question was asked three times: once for the frequency of the racist event in the past year, once for the frequency of the event during one's entire lifetime, and once for the appraisal of the stressfulness of the events. Examples: "How many times have you been treated unfairly by institutions (schools, universities, law firms, the police, the courts, the Department of Social Services, the Unemployment Offices and others) because you are Black?" How many times have you been treated unfairly by people in helping jobs (doctors, nurses, psychiatrists, case workers, dentists … therapists …) Frequency: "never" to "almost all the time" Stress: "not at all" to "extremely" "How many times in the past year?" "How many times in your entire life?" "How stressful was this for you?"
20. Landrine H., et al. (2006) (Healthcare)	1569 adults (868 college students and 701 community adults; 780 Whites, 406 Latinos, 174 African American, 94 Asian Americans, 95 Other racial background)	To measure perceived ethnic discrimination in health research	General Ethnic Discrimination Scale modeled on the Schedule of Racist Events (SRE) that measures discrimination as a type of stress. Recent discrimination (past year): CA=0.94 Lifetime discrimination: CA=0.94 Appraised discrimination: CA=0.95 (split-half reliability for each scale: 0.91)	18-item measure of perceived ethnic discrimination, on a 6-point Likert-type scale, the frequency the sample has experienced specific racist events in a wide variety of settings, including one item regarding health care setting (e.g., racism experienced by institutions, neighbors, peers, and teachers). Each question was asked three times: once for the frequency of the racist event in the past year, once for the frequency of the event during one's entire lifetime, and once for the appraisal of the stressfulness of the events. Examples: "How many times have you been treated unfairly by institutions (schools, universities, law firms, the police, the courts, the Department of Social Services, the Unemployment Offices and others) because of your race/ethnic group?" How many times have you been treated unfairly by people in helping jobs (by doctors, nurses, psychiatrists, case workers, dentists … therapists …) because of your race/ethnic group? Frequency: "never" to "almost all the time"

Author	Study population	Study purpose and theoretical framework	Measure development and psychometric evaluation	Instrument description and examples of items
				Stress: “not at all” to “extremely” “How often in the past year?” “How often in your entire life?” “How stressful was this for you?”
21. Lillie-Blanton, et al. (2000) (Healthcare)	Nationally representative sample of 3,884 Whites, African Americans and Latinos	To assess the public’s attitudes about racial and ethnic differences in health care	Survey was designed and analyzed by the authors.	(three health care related items) Have you felt a doctor or health provider judged you unfairly or treated you with disrespect because of race or ethnic background?
22. Mays and Cochran (1997)	232 African American women and 73 African American men in college, university, in junior college, in Los Angeles, CA.	Frequency of discrimination as related to psychological distress.	Frequency of discrimination: • Based on race-ethnicity, gender or both: in general: personally experienced • As perpetrated by three sources (African American men, women, White men): against African American person of same gender as respondent; personally experienced • As perpetrated by other African Americans against African Americans lacking economic resources: in general; personally experienced No psychometric evaluation described	Frequency of discrimination response format: for each item, 7-point Likert-type scale, ranging from “never” to “fairly often.” Degree of upset and relation to perpetrator, for each type of personally experienced discrimination, response format: 7-point Likert-type scale. Upset: ranging from “not at all” to “upset a great deal.” Relationship to perpetrator: “mostly by those I know well” to “mostly by complete strangers”
23. McNeilly, M.D., et al. (1996) Perceived Racism Scale (PRS) (Healthcare)	165 African American College students, and 25 members from the community.	This measure of African Americans experience of racism provides an assessment of frequency of exposure to multiple types of racist events and an assessment of emotional and behavioral coping responses to racism across a variety of situations.	CA range: 0.88–0.96 Frequency of exposure=0.96 Emotional and behavioral coping responses=0.92 Test-retest reliability: range 50.05–0.78	(one health care related item) 51 items Measures frequency of exposure (past year; over one’s life) to types of racist incidents, and includes dimensions of emotional and behavioral coping responses. These exposures and responses are measured with respect to their occurrence in three situational domains: on the job, in academic settings and in the public realm (overt and subtle), & measurement of exposure to racist statements which can occur across settings. One item regarding health care: “I have been denied hospitalization or medical care” **Dimension 1. Frequency of exposure to types of racist events** Types include: Individual and institutional, overt and covert, attitudinal and behavioral, temporal component assesses incidents occurring: • over the past year • over one’s life **Dimension 2. Emotional responses to perceived racism** Emotions include feeling: Angry, frustrated, sad, powerless, hopeless, ashamed, strengthened.

Author	Study population	Study purpose and theoretical framework	Measure development and psychometric evaluation	Instrument description and examples of items
				Dimension 3. Behavioral coping responses to perceived racism Coping behaviors include: Speaking up, accepting it, ignoring it, trying to change things, keeping it to myself, working harder to prove them wrong, praying, avoiding it, getting violent, forgetting it, other. **Domains—Each dimension is assessed across the following domains:** Employment domain, academic domain, public domain, racist statements
24. Peterson, et al. (2004)	1,979 full time medical school faculty. 82% White, 8% Black, 1% Mexican Americans, 1% Puerto Ricans, 0.3% Native Americans, 7% Asian or Pacific Islanders, 1% Hispanic Americans	To assess experiences of discrimination of minority faculty in academic medicine	Not described	Do you perceive any racial/ethnic biases or obstacles to the career success or satisfaction of faculty by race/ethnicity in your academic environment? (1=no, never – 5= yes, frequently) In your professional career, have you ever been left out of opportunities for professional advancement based on race/ethnicity? (1=no; 5=yes) In your professional career, have you personally encountered racial/ethnic discrimination (unfair or injurious distinction or treatment by a superior or colleague? (1=no; 2=yes) If yes to latter, respondents asked “How much of a problem has this been for you?,” “Have you encountered racial/ethnic remarks?”, “To what extent have these experiences had a negative effect on your confidence as a professional?”, and “To what extent have these experiences negatively affected your career advancement?”
25. Ren, X.S., et al. (1999) (Healthcare)	The National Survey of Functional Health (NSFH) White=1525 African American=134 Hispanics=46 Asian or Others=42	Analyzed self-perceived unfairness (discrimination due to racial identity or to low SES) was linked to self-assesses health status.	Mail out survey adapted from Krieger, 1990 (item #12): added 2 more scenarios, and changed “discrimination” to “unfair treatment.” CA coefficient of 0.83	1-Item: “Have you ever experienced unfair treatment, been prevented from doing something, or made to feel inferior because of race in 7 different situations: at school, getting a job, at work, getting medical care, getting housing, from the police or in the courts, and on the street or in a public setting?”
26. Ryan, A.M., et al. (2006) (Healthcare)	666 adults residing in New Hampshire (78 African American, 112 Black immigrants, 476 Latino immigrants)	Relationship between perceived discrimination and health (specifically blood pressure)	Data from the 2002–2003 New Hampshire Racial and Ethnic Approaches to Community Health 2010 Initiative (NH REACH)	(one health care related item) Questions adapted from the Reactions to Race module from the 2002 Behavior Risk Factor Surveillance System **1** How often do you feel discomfort or anger by the way others treat you in your everyday life because of your race? (constantly; once/day; once/week; once/month; once/year; never; other, specify) **2** Do you feel that racial discrimination diminishes your ability to achieve your goals fully? (yes/no) **3** Do you feel that you have been receiving less than the best health care because of your race? (yes, often; yes, some of the time; no, none of the time; don’t know)
27. Salgado de Snyder, V.N. (1987)	Mexican immigrant women N=140, ages 17–49 (M=25.7 yrs) with a mean of 9.5 years of	Assessed acculturative stress, individual stressors and their relationship to levels of depressive symptomatology.	CA coefficient of 0.65	1 of 12 yes or no items on an acculturation scale, if the subject experienced stressor in the past 3 months. If the answer was yes, subjects were asked to further respond on a 4-point Likert type scale for degree of stressfulness (0—not very stressful, 4—very stressful).

Author	Study population	Study purpose and theoretical framework	Measure development and psychometric evaluation	Instrument description and examples of items
	education, married for the first time in LA county.			
28. Thompson, V.L. (1996)	200 African American adults.	To learn whether perceived racism produces symptoms of subjective distress noted in relationship to other stressful life events. Also, to find whether racial identification mediated the psychological impact of perceived experiences of racism. Stressful Life Events (Lazarus)	Racism: Inter-rater reliability= 89.6%	Racism Measure: Participants reported whether they had ever experienced and whether they had experienced racism in the last 6 months. Racism was described as an unfavorable, unfair, or insulting event or action that occurred due to their skin color or group membership. Three examples were provided if, and only if, a participant requested it (e.g. Loss of job due to race, refusal of housing due to race, or derogatory names that were racial in nature). Participants were asked to provide a written description of the most recent racial incident within 6 months. The raters were trained by the primary investigator to categorize racial incidents. Descriptions were categorized as minor, moderate and major.
29. Thompson, C.E., et al. (1990) Racism Reaction Scale (RRS)	European American (EA) college students (n=70); African American college students in Southern California (n=87); Total (N=157).	The study aim was to examine the experiences of African American college students attending predominantly EA universities. The measure for racism was designed to capture the individual level of suspicion about being singled out for differential treatment or being personally threatened.	The instrument used consisted of the CMI. CA of 0.86	The CMI questionnaire consisted of 2 subscales: • The Education and Training subscale was designed to measure the degree to which the respondent agrees that EAs are to be trusted by AAs within the context of education and training. • The Interpersonal subscale was designed to measure the extent to which respondents agree that AAs should mistrust EA's in interpersonal situations. Respondents on both subscales were instructed to respond to a 7-point Likert-type scale (ranging from 1=strongly disagree to 7=strongly agree): "Professors treat me differently than they do other students" "Professors don't expect me to perform as well as other students"
30. Trivedi, A.N., et al. (2006) (Healthcare)	54,968 adults (African American, White, Latino, Asian, AI)	Perceived discrimination in health care and use of preventive health services	Data from the 2001 California Health Interview Survey (CHIS)	Phone interview: **1** Thinking of your experiences with receiving health care in the past 12 months, have you felt you were discriminated against for any reason? **2** What do you think was the reason you were discriminated against? (10 response options included age, race, language, health and disability, weight, insurance, income, gender, medical beliefs, multiple reasons, and other).
31. Utsey, S.O. (1996) Index of Race Related Stress (IRRS)	African American adults with a wide range of demographic backgrounds: College students (CS) & community residents (CR) (pilot n=377); CS, CR and drug treatment clients (Study 1,	Race-related stress operationalized as the occurrence and perceived magnitude of specific events of racism and discrimination potentially experienced in daily lives. • Cultural	Initial items included on the IRRS was based on informal interviews with African Americans from diverse backgrounds, a review of the literature, and the personal life experiences of the researcher (an African American male). CA Study 1: Cultural racism=0.87;	46 item, 5-point Likert-type scale If an individual was the victim of a racist or discriminatory act, they were to indicate their reaction to the event on the basis of the following response choices: 0=this event has never happened to me, 1=this event happened but did not bother me, 2=this event happened and I was slightly upset, 3=this event happened and I was upset, 4=this event happened and I was extremely upset. Individuals responded only to the events that they experienced.

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	n=302); CS&CR (Study 2, n=153).	• Institutional • Individual • Collective Daily hassles (Lazarus and Folkman '84) integrated with Essed's ('90) concept of every day racism.	Institutional racism=0.85 Individual racism=0.84 Collective racism=0.79 CA Study 2: Cultural racism=0.89; Institutional racism=0.82 Individual racism=0.84 Collective racism=0.74	"Whites or other non-Blacks have treated you as if you were unintelligent and needed things explained to you slowly or numerous times" Stress = general concept like emotion, but operationalized according to the perceived magnitude of the interactions with the environment that taxed or exceeded the person's resources.
32. Utsey—brief version (IRRS-B) (1999)	College students (25 European Americans for comparison group and 239 African Americans)	To develop a shorter version of the IRRS.	CA's: Cultural racism=0.78; Institutional racism=0.69 Individual racism=0.78 Confirmatory factor analyses supported a three factor model; the brief measure had higher factor loadings, more robust fit indices, and adequate CA.	22 item subset from the original items, as described above.
33. Vines, A.I., et al. (2001) Telephone-Administered Perceived Racism Scale (TPRS) (Healthcare)	476 employed African American women: randomly selected members of an urban HMO.	Perceptions of and responses to racism among working African American women.	Some of the items were used from the Perceived Racism Scale (see item # 17) The emotional and behavioral responses were related to on the job and public experiences, and subscales for active and passive coping responses were utilized. Alpha reliability values: 0.75 to 0.80 for the active and passive emotions subscale 0.59–0.69 for passive behaviors subscale >0.76 for both active behaviors subscales 0.82, 0.90, 0.88 & 0.82 for past experiences, concern for child(ren), experiences of racism (personal), and experiences of racism (group)	Experiences of racism (as a group and at the individual level), emotional responses, behavioral responses and past experiences of racism: Components of TPRS: Personal: Respondent discriminated when needing medical care Group: Blacks are paid less Passive emotions: Hopeless and powerless Active emotions: Angry, frustrated, sad Passive behaviors: Does not speak up or try to change things External active behavior: Working harder to prove them wrong Internal active behavior: Praying Concern for child(ren): Being punished more harshly than others in school Past experiences of racism: Frequency of past experience. Stress of past experience.
34. Williams D.R., et al (1997)	520 Whites and 586 African Americans from the Detroit Area Study.	Racial differences in SES, acute and chronic indicators of perceived discrimination, and general measures of stress account for differences in self-reported measures of physical and mental health. Essed (Everyday events).	Two measures of race-related stress: major discrimination and everyday discrimination. Both were framed in the context of "unfair" treatment rather than racism. CA=0.88 for Everyday Discrimination	Discrimination, as measure of major experiences, is a count of 3 items: **1** Do you think you have ever been unfairly fired or denied promotion? **2** For unfair reasons, do you think that you have ever not been hired for a job? **3** Do you think you have ever been unfairly stopped, searched, questioned, physically threatened or abused by police? Everyday discrimination (chronic, routine, and relatively minor experiences): Sums nine items on

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				everyday situations. E.g. being treated with less courtesy than others; they think you are dishonest; they are afraid of you.

[a] Cronbach's Alpha = CA