The Perceived Ethnic Discrimination Questionnaire: Development and Preliminary Validation of a Community Version

ELIZABETH BRONDONO, KIM P. KELLY, VONETTA COAKLEY, TAMAR GORDON, SHOLA THOMPSON, AND ERIKA LEVY
St. John’s University

ANDREA CASSELS AND JONATHAN N. TOBIN
Clinical Directors Network

MONICA SWEENEY RICHARD J. CONTRADA
Bedford Stuyvesant Family Health Center Rutgers University

This paper describes 2 studies that evaluated a new instrument, the Perceived Ethnic Discrimination Questionnaire–Community Version (PEDQ-CV). The PEDQ-CV can be used across ethnic groups to assess perceived racism or ethnic discrimination. The scales measure several subdimensions of racism, permitting the examination of different forms of this race-related stressor. The first study evaluated the psychometric properties of the PEDQ-CV in a large sample of community-dwelling adults. The second evaluated psychometric properties of a brief version of the PEDQ-CV, developed for research protocols requiring a shorter administration time. Tests were made of reliability and several forms of construct validity. Both versions of the PEDQ-CV have good reliability and construct validity. The PEDQ-CV can facilitate the development of an integrative body of knowledge across different ethnic groups regarding the existence, determinants, and consequences of discrimination.

Racism or ethnic discrimination has been hypothesized to contribute to the well-documented racial and ethnic disparities in health (Anderson & Armstead, 2005).

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2Correspondence concerning this article should be addressed to Elizabeth Brondolo, Department of Psychology, St. John’s University, 8000 Utopia Parkway, Jamaica, NY 11439. E-mail: brondole@stjohns.edu

3There is little consensus on the best terms to use to distinguish among groups based on phenotypic or cultural characteristics, and both scientific and political factors influence the debate. Some terms (e.g., Black) have been used to refer to racial groups, (footnote continues on the next page)
Some researchers have suggested that studies of the health effects of racism may benefit by conceptualizing racism and ethnic discrimination as forms of social stress within the stress and coping framework developed by Lazarus and Folkman (1984; see also Clark et al., 1999; Outlaw, 1993). This model assumes that the psychological and physiological effects of a particular stressor depend not only on the characteristics of actual events or conditions, but also on the individual’s perceptions of the threat posed by the stressor and on ensuing coping responses (Lazarus, 1991; Lazarus & Folkman, 1984).

Application of the stress and coping model must take into account the fact that racism is a multifaceted construct. Clark et al. (1999) defined racism as “the beliefs, attitudes, institutional arrangements, and acts that tend to denigrate individuals or groups because of phenotypic characteristics or ethnic group affiliation” (p. 805). Contrada and colleagues (Contrada et al., 2000, 2001) used the more general term ethnic discrimination and defined it as unfair treatment received because of one’s ethnicity, where ethnicity refers to various groupings of individuals based on notions of race or culture of origin. Perceived racism or ethnic discrimination can reflect exposure to individual, institutional, or cultural events or conditions (Krieger, 1999; Taylor & Grundy, 1996). Racism or ethnic discrimination can involve stigmatization, exclusion, social distancing, harassment, or violence and other acts (Contrada et al., 2001; Krieger, 1999).

Different forms of ethnicity-related interpersonal maltreatment may operate as different types of stressors. For example, the experience of being threatened or harmed because of one’s ethnicity may evoke anger, fear, and sustained
vigilance. In contrast, the experience of being excluded or shunned in social situations may induce sadness, loss of self-esteem, and avoidance. In turn, these different stressors and their affective and coping sequelae may be associated with different patterns of autonomic and cardiovascular activation (Saab et al., 2000). Evaluating these different dimensions of racism and their psychological and physiological correlates may facilitate understanding of psychobiological mechanisms linking racism to health.

To evaluate the effects of racism within the stress and coping model, it is necessary to have reliable and valid measures of exposure to perceived racism or ethnic discrimination. A number of investigators have developed self-report measures of perceived racism (Barbarin & Gilbert, 1981; Contrada et al., 2001; Green, 1995; Harrell, 1994; James, Lovato, & Cropanzano, 1994; Landrine & Klonoff, 1996; McNeilly, Anderson, Armstead, et al., 1996; Thompson, Neville, Weathers, Poston, & Atkinson, 1990; Utsey & Ponterotto, 1996). Although each published measure represents a step forward, a recent review has pointed out that there are still limited published data on many of the measures’ reliability and validity, and that the samples used to evaluate the measures generally have been small (Utsey, 1998).

Many (e.g., Green, 1995; Landrine & Klonoff, 1996; McNeilly, Anderson, Armstead, et al., 1996, Utsey & Ponterotto, 1996), though not all (e.g., James, 1994; Thompson et al., 1990), available measures were developed for use with African American samples, and the content and wording of items are better suited for this particular group than for others. In contrast, measures such as the Perceived Ethnic Discrimination Questionnaire (PEDQ; Contrada et al., 2001), which are capable of assessing experiences of racial/ethnic discrimination in a manner appropriate for multiple ethnic groups, allow the development of an integrated body of empirical and theoretical work concerning the prevalence, determinants, and effects of racial/ethnic discrimination without denying the importance of factors unique to the history and culture of particular groups.

Specifically, an instrument that can be used to assess ethnic discrimination in any group will permit the evaluation of both within-group and between-group differences in perceived exposure to ethnic discrimination. Evaluating within-group differences in exposure would permit investigators to determine if there are dose-response or threshold effects in which the negative physical or psychological consequences of racial/ethnic discrimination do not emerge until the intensity or frequency of exposure reaches a certain level. Between-ethnic/race group comparisons would permit the identification of factors (e.g., ethnic group membership, coping resources, health-related behaviors) that may moderate the impact of racial/ethnic discrimination on health.

Measures of perceived racism or discrimination have been tested in both student samples (Contrada et al., 2001; Terrell & Terrell, 1981) and community or worksite samples (Barbarin & Gilbert, 1981; Green, 1995; James et al., 1994;
Although much basic research on the effects of racism is likely to be conducted with a college student sample, developing a measure that can be used with community samples of different ages is important for several reasons. Negative health outcomes may be apparent only among older adults or may emerge more clearly among low socioeconomic status (SES) individuals who are at greater risk for cardiovascular disease (CVD). In addition, the forms of discrimination experienced by students may differ from those experienced by community-dwelling minority group members. None of the existing studies has specifically examined differences in the reliability and validity of the measures depending on the type of sample (i.e., students vs. community-dwelling adults) or the educational level of the participants. Without more explicit testing, it is difficult to determine if measures developed primarily with a student or university-based sample can be used effectively with an older, less literate community-based group.

Some measures contain subscales distinguishing among forms of discrimination that exist at different levels of analysis (e.g., cultural vs. institutional vs. interpersonal; Utsey & Ponterotto, 1996) or contrasting the domains or venues in which discrimination can occur (e.g., academic vs. employment settings; McNeilly, Anderson, Armstead, et al., 1996). Only the PEDQ (Contrada et al., 2001) has reliable subscales that specifically assess exposure to different facets of ethnicity-related interpersonal maltreatment. It is important to be able to reliably assess different types of maltreatment, as each may evoke different affective, coping, and physiological responses.

The present paper describes a new instrument, the Perceived Ethnic Discrimination Questionnaire–Community Version (PEDQ-CV). The PEDQ-CV is a modification of the PEDQ, developed by Contrada et al. (2001) to assess perceived exposure to ethnic discrimination in college students from any ethnic/racial background. The original items inquired about a variety of everyday experiences broadly relevant to members of minority groups in general (Contrada et al., 2001). For the community version, the items were revised to fit the life experiences of community-dwelling adults.

The PEDQ-CV has several advantages, as it includes scales assessing multiple dimensions of racism, can be used with any ethnic group, and is appropriate for both student and community samples. Specifically, the complete PEDQ-CV contains a Lifetime Exposure scale, as well as additional scales assessing exposure to racism from different sources and over different time periods. Another scale assesses participants’ awareness of friends’ and family members’ exposure to discrimination, since this type of indirect exposure may also have health consequences (Krieger, 1999). The Lifetime Exposure scale contains subscales assessing a range of experiences, including ethnicity-related social distancing, stigmatization, workplace discrimination, and harassment.
To facilitate the development and testing of the PEDQ-CV, we solicited the assistance of three primary healthcare practices located in low-income urban areas of New York City. The practices are affiliated with Clinical Directors Network (CDN). CDN and its member Community/Migrant Health Centers (C/MHCs) are dedicated to providing comprehensive and accessible community-oriented healthcare services and clinical research opportunities for poor, minority, and underserved populations. The centers serve patients from a range of socioeconomic backgrounds, including patients who are severely impoverished as well as those who are working and middle class.

Two studies were conducted. The purpose of Study 1 is to examine the psychometric properties of the PEDQ-CV and to conduct the factor analyses necessary to identify content-based subdimensions of perceived racial or ethnic discrimination. Additional analyses investigate the prevalence of perceived exposure to different types of discrimination, and examine the prevalence of inter-group versus intra-group racism.

As one indicator of construct validity, we performed a series of known-group comparisons (e.g., comparisons of intensity of exposure in Blacks vs. Latinos and in American-born vs. foreign-born individuals). Previous research has suggested that although Latinos are often stigmatized and experience discrimination, majority group attitudes toward Blacks are more negative than are attitudes toward Latinos (Schneider, Hitlan, & Radhakrishnan, 2000; White & Sedlacek, 1987). If differences in the public’s attitudes toward members of these groups are reflected in the groups’ reports of exposure to discrimination, this would serve as support for the validity of the measure.

Differences between American-born and foreign-born groups would provide further support for the construct validity of the scale. The majority of foreign-born individuals in the sample emigrated from countries (e.g., Trinidad, Dominican Republic) in which people of color form the majority group. Consequently, prior to coming to the United States, these individuals may not have been exposed to significant levels of inter-group racism. Limited prior exposure may make foreign-born individuals less likely to attribute current episodes of discrimination or stigmatization to racism or ethnic bias (Ogbu, 2002). In addition, culture-specific coping styles may influence perceptions of discrimination (Brice, 1982). Consequently, it was predicted that American-born individuals would report more discrimination than would foreign-born individuals.

The purpose of Study 2 is to develop a brief version of the PEDQ-CV based on results of the factor analysis undertaken in Study 1 on the Lifetime Exposure scale, the major portion of the full PEDQ-CV. The Brief PEDQ-CV was developed for use in research protocols requiring a shorter administration time. In Study 2, the Brief PEDQ-CV was used to evaluate aspects of construct validity—including convergent, concurrent, and discriminant validity—because
its brevity permitted us to administer other measures without undue participant burden.

Convergent validity was assessed by correlating scores on the Brief PEDQ-CV with scores on the Perceived Racism scale (McNeilly, Anderson, Armstead, et al., 1996), a well-known measure of perceived racism. Concurrent validity was assessed by examining the relationships between scores on the PEDQ-CV and appraisals of racist interactions. Appraisals were assessed indirectly by asking individuals about their emotional reactions to instances in which they were mistreated because of their ethnicity. Researchers have suggested that prior exposure to a stressor may sensitize individuals to future occurrences and increase the degree to which future stressors are appraised as dangerous (Gump & Matthews, 1999). Therefore, it is predicted that scores on the PEDQ-CV will be correlated positively with the degree to which racist interactions are perceived as threatening or harmful.

Further tests of construct validity were made in a subsample of participants who completed trait measures of anxiety, defensiveness, hostile attributions, and cynicism. Researchers have reported a positive association of perceived exposure to racism to other measures of distress (Schulz et al., 2000), and Krieger (1990; Krieger & Sydney, 1996) specifically hypothesized that denial and defensiveness may lead to underreporting of exposure to racism. Therefore, it is predicted that perceived racism will be positively associated with anxiety, cynicism, and the tendency to attribute hostile motivations to other people’s actions; and negatively correlated with a measure of defensiveness.

We also tested discriminant validity, another form of construct validity, by examining the relationship of perceived racism/ethnic discrimination to appraisals of discriminatory situations as challenging or beneficial. It is hypothesized that perceiving a discriminatory or racist situation as beneficial or challenging will be a function of perceived coping resources or personality variables, rather than a function of the degree of exposure to the stress of racism.

In sum, this paper provides a description of the development of long and brief versions of a measure of perceived ethnic discrimination intended for use across ethnic groups and by individuals with varying levels of literacy. The instruments (the PEDQ-CV and the Brief PEDQ-CV) measure several dimensions of everyday racism that may be important for understanding the relationships among racism, coping, and health. Two studies were conducted to provide tests of reliability and validity. The samples include college students, as well as a large group of community-dwelling adults. To evaluate the degree to which the measure can be used effectively in different groups, we contrasted the reliability and validity of the measure in groups varying in ethnicity (i.e., Blacks vs. Latinos), place of birth (i.e., American-born vs. foreign-born), education, and location of recruitment (i.e., university vs. community).
Study 1

Study 1 serves as an opportunity to test the psychometric properties of the full PEDQ-CV and all its subscales in a relatively large sample of community-dwelling adults. Gender, age, SES, ethnicity, and place of birth were examined as predictors of scale scores.

We concentrated our initial efforts on recruiting participants from practices serving urban Blacks and Latinos because we wanted to evaluate the degree to which the PEDQ-CV could effectively measure ethnic discrimination in more than one ethnic/racial group. As our ultimate interest is in the investigation of racism as a risk factor for CVD (Brondolo, Rieppi, Kelly, & Gerin, 2003), we needed to design a measure appropriate for use with a Black sample because Blacks living in America are disproportionately affected by CVD. Latinos were included as the second major group of participants, as there is an ethnic/racial discrimination measure designed specifically for Latinos (the Perceived Racism scale for Latinos; Collado & Shirley, 1999), permitting us to test the convergent validity of our measure. Small numbers of individuals from other racial and ethnic groups also completed the questionnaire, and their data were included in the full sample to provide levels of statistical power appropriate for analyses of the effects of participant status (i.e., patients vs. staff), employment status, education, and other variables.

Measure Development

To develop the community version of the PEDQ, Black, Latino, and Caucasian members of the research team revised items from the original PEDQ, reducing vocabulary level and adapting items to the life settings and experiences of community-dwelling adults. Next, we sought community input to refine the wording of existing items, to develop additional items, and to gain guidance on the feasibility of administration in large-group settings requiring participants to read and respond to the measure independently.

Specifically, a preliminary version of the questionnaire was introduced at one primary-care practice to a sample of 33 participants (27 female, 6 male). Of these participants, 29 were Black, 3 were Latino, and 1 was both Black and Latino. Participants were asked to complete the existing questionnaire independently while sitting in a waiting room at the primary-care practice. Next, individual focus interviews were conducted with these participants and with an additional group of 4 health-center staff members. Participants were asked to provide feedback about the meaning and acceptability of the questions, to generate new items reflecting their everyday experiences of discrimination, and to suggest other measurement strategies. The final version of the questionnaire included items and methods (i.e., essay questions) suggested by focus interview participants.
Method

Participants

A total of 301 adult participants (232 female, 77.0%; 66 male, 21.9%; 3 missing gender data) completed the PEDQ-CV. The participants were recruited from three primary-care centers in two New York City boroughs. Of the 301 participants, 183 (60.8%) were patients recruited from waiting rooms, and 92 (30.6%) were staff members of the primary-care centers (26 individuals, 8.6%, did not identify their status).

Participants’ average age was 36 years (range = 18 to 77 years). The majority of participants self-identified as Black (n = 174; 57.8%), while 82 participants (27.2%) self-identified as Latino, 18 (6.0%) as White, 7 (2.3%) as Asian, 4 (1.3%) as Native American, 9 (3.0%) as having mixed ethnicity, and 7 did not report ethnicity. More than half were born in the United States (n = 168; 55.8%). Of the 122 participants who were foreign-born, 106 indicated their place of birth, with 63.6% (n = 68) from the Caribbean Islands, 22.4% (n = 24) from Central or South American, 5.6% (n = 6) from Asia, 4.7% (n = 5) from Europe, and 2.8% (n = 3) from Africa.

Half of the foreign-born participants who provided data on their age of immigration (n = 51; 47.7%) reported that they came to the United States when they were less than 18 years old. Participants came from a range of educational backgrounds: 5% had a grade-school education, 19% had attended some high school, 27% had completed high school, 22% had attended some college (including 1 individual enrolled in a technical school), 16% had a college degree, and 10% had attended graduate school. Of the total sample, 72% were employed; and among patients, 58% were employed. Half (n = 146; 48.5%) were single, 38.3% were married (n = 93) or living together (n = 20), 8.0% (n = 24) were divorced, 4.0% (n = 12) were widowed, and 6 did not provide data on marital status. Participation was voluntary and anonymous, and all participants were given an information sheet explaining the purpose of the study and the nature of their participation.

Recruitment

Accompanied by the first author, trained Black and Latino graduate students administered questionnaires. The ethnicity of the research assistants was matched to the ethnicity of the largest group of participants served by the primary-care practice site (i.e., in sites serving a predominantly Black community, Black graduate students were assigned to collect data; whereas in sites serving a primarily Latino community, Latino graduate students collected data.) The measures were administered to interested patients in the waiting rooms of the health center. The only eligibility requirement was that participants needed to be capable of understanding English. If participants could not read English, the questionnaire was read to them.
Table 1

*Factor Loadings for the PEDQ-CV Total Items*

<table>
<thead>
<tr>
<th>Item</th>
<th>Exclusion/rejection</th>
<th>Stigmatization/disvaluation</th>
<th>Discrimination at work/school</th>
<th>Threat/aggression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Been nice to face, but said bad things behind back</td>
<td></td>
<td>.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Made you feel like an outsider because of appearance</td>
<td></td>
<td>.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Those speaking a different language made you feel like an outsider</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ignored you</td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hinted you are stupid</td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerk or waiter ignored you</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Called you bad names</td>
<td>.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Made rude gestures</td>
<td>.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hinted you must be lazy</td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hinted you must not be clean</td>
<td>.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hinted you were dishonest</td>
<td>.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not trusted you</td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hinted you must be violent</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not taken you seriously</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treated unfairly by coworkers</td>
<td>.66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boss or supervisor unfair</td>
<td>.66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treated unfairly by teachers</td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thought you couldn’t do things/handle a job</td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actually hurt you</td>
<td>.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threatened to hurt you</td>
<td>.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actually damaged your property</td>
<td>.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threatened to damage your property</td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2

Psychometric Properties of Scales in the Perceived Ethnic Discrimination

<table>
<thead>
<tr>
<th>Scale</th>
<th># of items</th>
<th>α</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifetime discrimination scale</td>
<td>34</td>
<td>.95</td>
<td>1.94</td>
<td>0.68</td>
<td>1-5</td>
</tr>
<tr>
<td>Exclusion/rejection</td>
<td>9</td>
<td>.88</td>
<td>2.28</td>
<td>0.83</td>
<td>1-5</td>
</tr>
<tr>
<td>Stigmatization/discrimination</td>
<td>6</td>
<td>.86</td>
<td>1.72</td>
<td>0.83</td>
<td>1-5</td>
</tr>
<tr>
<td>Discrimination at work/school</td>
<td>4</td>
<td>.75</td>
<td>2.03</td>
<td>0.91</td>
<td>1-5</td>
</tr>
<tr>
<td>Threat/aggression</td>
<td>4</td>
<td>.81</td>
<td>1.54</td>
<td>0.74</td>
<td>1-5</td>
</tr>
<tr>
<td>Discrimination in the media</td>
<td>3</td>
<td>.88</td>
<td>3.28</td>
<td>1.26</td>
<td>1-5</td>
</tr>
<tr>
<td>Discrimination against family member</td>
<td>6</td>
<td>.84</td>
<td>2.19</td>
<td>0.93</td>
<td>1-5</td>
</tr>
<tr>
<td>Discrimination in different settings</td>
<td>9</td>
<td>.86</td>
<td>1.95</td>
<td>0.83</td>
<td>1-5</td>
</tr>
<tr>
<td>Past week discrimination</td>
<td>10</td>
<td>.99</td>
<td>0.72</td>
<td>0.73</td>
<td>0-3</td>
</tr>
</tbody>
</table>

Note. n = 301.

*a*Comparisons between Blacks (n = 173) and Latinos (n = 82). *b*Comparisons between *p < .05. **p < .01.

The principal investigator (first author) made a presentation to all patients in the waiting rooms, describing the purpose and method of the study. Interested volunteers were given a packet consisting of an information sheet describing the study, a brief demographic survey, and the PEDQ-CV. Participants were asked to read and complete the questionnaires on their own, but were told that research team members were available to assist as necessary. More than 90% of English-speaking patients agreed to complete the measure. All but 10 patients were able to complete the questionnaires independently. The remaining patient participants had the questionnaire read aloud to them.

Research team members approached primary-care practice staff members individually at their work stations, and all those not directly engaged in patient care agreed to complete the questionnaire. Scale completion required 10 to 15 min. All participants were provided with gift bags worth about $5.

Measures

Demographics. Participants were asked to respond to items inquiring about their gender, age, employment status, marital status, highest level of education, place of birth, and age at immigration, if applicable. Participants also were asked
to identify their ethnicity/race by endorsing one or more items from the following choices: Asian, Latino, Black, Native American, White, or Other. In addition, participants were asked to complete an open-ended item that asked them to indicate the ethnic group to which they belonged.

**PEDQ-Community Version (PEDQ-CV).** The PEDQ-CV, derived from the Perceived Ethnic Discrimination Questionnaire (PEDQ; Contrada et al., 2001), is a 70-item questionnaire assessing lifetime experiences of ethnic discrimination (Appendix). The PEDQ-CV differs from the PEDQ in that the difficulty level of the vocabulary was reduced, and items were developed to fit life experiences of non-student adults.

The first 34 items comprise the Lifetime Exposure Discrimination scale (see Table 1 for sample items). These items begin with the statement “Because of my ethnicity . . .” and are followed by an item describing exposure to some form of mistreatment or difficulty (e.g., “a clerk or waiter ignored me”). There are four additional scales, including Discrimination in the Media, Discrimination Against Family Members, Discrimination in Different Settings, and Past Week Discrimination (see Table 2 for a list of scales and subscales). For all scales except Past Week Discrimination, participants were asked to indicate how often they had ever “had these experiences during their lifetime,” and each item was rated on 5-point

<table>
<thead>
<tr>
<th>Questionnaire–Community Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blacks (n = 173)</td>
</tr>
<tr>
<td>(M)</td>
</tr>
<tr>
<td>2.02</td>
</tr>
<tr>
<td>2.30</td>
</tr>
<tr>
<td>1.81</td>
</tr>
<tr>
<td>2.13</td>
</tr>
<tr>
<td>1.59</td>
</tr>
<tr>
<td>3.51</td>
</tr>
<tr>
<td>2.22</td>
</tr>
<tr>
<td>1.97</td>
</tr>
<tr>
<td>0.80</td>
</tr>
</tbody>
</table>

American-born participants (n = 167) and foreign-born participants (n = 122).
Likert-type scale ranging from 1 (never happened) to 5 (happened very often). The Past Week Discrimination scale contains 10 items inquiring about everyday experiences of stigmatization, threat, and exclusion or rejection, similar to those included in the Lifetime Exposure scale. Items were rated on a 4-point scale of 0 (never in the past week), 1 (once), 2 (twice), or 3 (3 or more times in the past week).

Two additional items were included to provide an estimate of the relative likelihood of inter-group versus intra-group ethnic discrimination. Inter-group racism or ethnic discrimination occurs when the ethnicity/race of the perceived perpetrator differs from that of the victim. Intra-group racism occurs when the perceived perpetrator is of the same ethnicity as the victim, but the event is still perceived to be motivated by ethnic or racial bias. The first item asked participants to indicate which of the following groups gave them the most difficulty: Asians, Blacks, Latinos, Native American, or Whites. The second item asked whether the participant experienced more discrimination from men or from women.

Results

Principal components factor analysis was performed on responses to the 34-item Lifetime Discrimination scale. The sample mean for the item was substituted for the 1.8% of responses with missing values. The seven factors with eigenvalues greater than 1 were extracted and subjected to varimax rotation. The first four factors were defined by three or more items, were readily interpretable, and together accounted for 52% of the variance (Table 1). Three of these factors (Stigmatization/Disvaluation; Threat and Aggression; Exclusion/Rejection) corresponded reasonably closely with factors including Disvaluation, Threat and Aggression, Verbal Rejection, and Avoidance, which were identified by Contrada et al. (2001) in constructing the original PEDQ. The Exclusion/Rejection factor contains items found in the Verbal Rejection and Avoidance factors of the original PEDQ. The PEDQ-CV yielded one additional factor that was defined by items concerning unfair treatment at work. This factor, labeled Discrimination at Work, contained items that were added when the measure was adapted for use in community versus college student samples.

Four subscales were created based on the factor analysis of the Lifetime Discrimination scale. Items were included in a subscale if they had factor loadings of .50 or greater on the factor from which the subscale was created. As displayed in Table 2, these four subscales, and the Lifetime Discrimination scale comprised of all 34 items, had Cronbach’s alpha coefficients greater than .75. The items in the remaining four scales of the full PEDQ-CV were not subject to factor analysis because they were designed deliberately to assess different dimensions of racism and used different question and measurement formats. Analysis of the psychometric properties of the four additional scales in the PEDQ-CV (i.e., Discrimination in the Media, Discrimination Against Family
Table 3

Intercorrelations Among Scales and Subscales of the Perceived Ethnic Discrimination Questionnaire–Community Version

<table>
<thead>
<tr>
<th>Scale</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lifetime discrimination scale</td>
<td>.89</td>
<td>.83</td>
<td>.81</td>
<td>.66</td>
<td>.35</td>
<td>.65</td>
<td>.58</td>
<td>.65</td>
</tr>
<tr>
<td>2. Exclusion/rejection subscale</td>
<td>—</td>
<td>.64</td>
<td>.64</td>
<td>.50</td>
<td>.36</td>
<td>.62</td>
<td>.50</td>
<td>.56</td>
</tr>
<tr>
<td>3. Stigmatization/discrimination subscale</td>
<td>—</td>
<td>.59</td>
<td>.48</td>
<td>.24</td>
<td>.47</td>
<td>.46</td>
<td>.56</td>
<td></td>
</tr>
<tr>
<td>4. Discrimination at work/school subscale</td>
<td>—</td>
<td>.45</td>
<td>.30</td>
<td>.52</td>
<td>.44</td>
<td>.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Threat/aggression subscale</td>
<td>—</td>
<td>.04a</td>
<td>.32</td>
<td>.36</td>
<td>.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Discrimination in the media</td>
<td>—</td>
<td>.42</td>
<td>.26</td>
<td>.16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Discrimination against family member</td>
<td>—</td>
<td>.55</td>
<td>.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Discrimination in different settings</td>
<td>—</td>
<td>.51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Discrimination this past week</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. n = 301.

*aAll correlations significant at p < .01, with the exception of that between Threat/Aggression and Discrimination in the Media (ns).

Members, Discrimination in Different Settings, and Past Week Discrimination) indicates that these scales also had good reliability, as shown in Table 2. The scales and subscales are interrelated, but are not redundant, as can be seen in Table 3. For example, correlations among the four subscales of the Lifetime Discrimination scale (Exclusion/Rejection, Stigmatization/Discrimination, Threat/Aggression, and Discrimination at Work/School) ranged from .45 to .64.

Degree of Exposure to Ethnic/Racial Discrimination

As a group, participants reported that they had been exposed to discrimination over the course of their lifetimes and continue to experience discrimination
on a regular basis. As can be seen in Table 2, the mean score on the Lifetime Discrimination scale was 1.94 (range = 1 to 5), suggesting that, on average, participants experienced each of these types of racism or ethnic discrimination at least occasionally over their lifetime. Only 3 of the Black participants and 5 of the Latino participants responded never to all 34 items on the Lifetime Discrimination scale.

Repeated-measures ANOVAs were performed to examine the types of racism to which participants were most likely to be exposed. There were significant differences among subscales of the Lifetime Discrimination scale, $F(3, 894) = 94.62$, $p < .0001$ (Greenhouse-Geiser $\varepsilon = .96$, corrected $p < .0001$). In descending order of magnitude, participants reported being excluded or rejected ($M = 2.28$), discriminated against at work ($M = 2.03$), stigmatized ($M = 1.72$), and threatened ($M = 1.54$). Paired t tests reveal significant differences between each pair of scores (all $ps < .05$).

Responses to the Past Week Discrimination scale indicate that exposure to ethnic discrimination was common and continued to occur for many participants: 78% reported one incident of ethnic discrimination during the past week, and 59% reported three or more incidents. About half of the participants reported having experienced at least one episode of the following ethnicity-related events during the previous week: “being looked at in a mean way” (57%), “being ignored” (51%), “having something mean said to you” (47%), and “being treated in an unfair manner” (47%). Smaller, though still substantial, proportions of respondents reported experiencing at least one episode of the following ethnicity-related events in the past week: “having someone avoid talking to you” (44%), “having someone act as if you could not be taken seriously or handle responsibility” (41%), “having someone act as if you could not be trusted” (36%), “having someone act as if you were lazy” (33%), “being left out of an activity or event” (31%), and “having someone say or do something threatening” (30%).

Responses to the scale examining the frequency of discrimination in different settings reveal that 85% of participants reported experiencing at least some discrimination (i.e., responded with a score greater than 1 on a 5-point scale ranging from 1, never, to 5, very often) in one of the following nine settings: in the criminal justice system, when looking for housing, in medical services, in school, at work, at a religious institution, in public places, on a street or at a park, and at private functions. Percentages of participants reporting exposure in each venue are presented in Table 4.

Repeated-measures ANOVAs performed on mean ratings for each item reveal significant differences in exposure to discrimination among settings ($p < .0001$). As the mean score for the item “I have been exposed to discrimination in public places” was higher than the score for any other item, contrasts between this item and all remaining items were performed. Participants were significantly more
likely to experience discrimination in public places than in any other activity or venue (all \( p < .005 \)), except when looking for housing (\( p > .12 \)). Additional repeated-measures analyses indicate that scores on the item “I have been discriminated against at private events” were significantly lower than those for all other items (\( p < .01 \)), except the item assessing discrimination at religious institutions (\( p > .06 \)).

**Inter-Group and Intra-Group Racism**

Perceptions of inter-group and intra-group racism were examined, and comparisons were made among ethnicities and between genders. Across all participants, when asked which group presented them with the most ethnicity-related discrimination, 53% indicated Whites, 27% indicated Blacks, 10% indicated Latinos, 5% indicated Asians, and 4% indicated Native Americans. Among Blacks, 28% reported that other Blacks gave them the most difficulty. Among Latinos, 15% reported that other Latinos gave them the most difficulty. Between-group differences in the pattern of inter-group versus intra-group discrimination were not significant. Also, there were no significant differences between Blacks and Latinos or between men and women in the ethnic group associated with the greatest difficulty.

There were significant gender differences in responses when participants were asked to indicate which gender had given them the most difficulty in terms

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### Table 4

**Percentage Reporting Discrimination in Different Settings: Prevalence and Variability**

<table>
<thead>
<tr>
<th>Place</th>
<th>Never (0)</th>
<th>Sometimes (1-2)</th>
<th>Often (3-4)</th>
<th>Score (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal-justice system</td>
<td>57.4</td>
<td>29.5</td>
<td>13.1</td>
<td>1.92</td>
</tr>
<tr>
<td>Looking for housing</td>
<td>45.7</td>
<td>35.5</td>
<td>18.8</td>
<td>2.21</td>
</tr>
<tr>
<td>Medical services</td>
<td>55.9</td>
<td>34.9</td>
<td>9.7</td>
<td>1.84</td>
</tr>
<tr>
<td>In school</td>
<td>52.9</td>
<td>35.3</td>
<td>11.8</td>
<td>1.95</td>
</tr>
<tr>
<td>At work</td>
<td>49.7</td>
<td>36.2</td>
<td>14.1</td>
<td>2.04</td>
</tr>
<tr>
<td>At a religious institution</td>
<td>74.7</td>
<td>18.9</td>
<td>6.5</td>
<td>1.50</td>
</tr>
<tr>
<td>In public places</td>
<td>37.1</td>
<td>46.3</td>
<td>16.5</td>
<td>2.30</td>
</tr>
<tr>
<td>On the street/in a park</td>
<td>44.1</td>
<td>44.9</td>
<td>11.0</td>
<td>2.06</td>
</tr>
<tr>
<td>At private functions</td>
<td>63.5</td>
<td>31.4</td>
<td>5.2</td>
<td>1.62</td>
</tr>
</tbody>
</table>
of ethnic discrimination. Of the sample, 40% reported that men gave them more difficulty, while 60% reported that women gave them more difficulty. However, these proportions reflect the preponderance of women in the sample. When the effects were examined separately by gender, men reported experiencing more difficulty from other men than from women (71% vs. 29%); whereas, women reported experiencing more difficulty from women than from men (68% vs. 31%), \( \chi^2(1, N = 248) = 26.76, p < .001 \).

**Demographics and PEDQ-CV Scores**

Correlational analyses reveal that there was no association linking age to the Lifetime Discrimination scale (\( p > .80 \)) or to any of the four subscales. ANOVAs indicate that there were no gender, education, or employment status differences on the Lifetime Discrimination scale (all \( p > .60 \)) for any of the four subscales.

Comparisons between ethnic groups support the notion that, although Latinos reported being exposed to ethnic discrimination, Blacks were exposed to higher levels of discrimination than were Latinos. As shown in Table 2, results of ANOVAs indicate that there were significant between-group differences on the Lifetime Discrimination scale, on three of its four subscales, and on the Discrimination in the Media scale. In addition, and as expected, exposure to discrimination appears to be more prevalent for American-born participants, who had higher scores than foreign-born participants on every measure of discrimination (all \( p < .05 \)). The interaction of ethnicity and place of birth was not significant (\( p > .40 \)).

**Applicability Across Groups**

To evaluate the degree to which participants responded to the scale in a similar manner across ethnicity or educational groups, we compared Cronbach’s alpha scores for the Lifetime PEDQ-CV in a variety of subgroups. Alpha levels were .93 or better for (a) Blacks and Latinos; (b) patients and staff; (c) those with a college education, a high school education, or a grade-school education; (d) those born in the United States and those born outside the United States; and (e) those who were not employed as well as those who were employed.

**Discussion**

Data obtained in Study 1 support the notion that the PEDQ-CV is relatively easy to use and can be completed by individuals with varying levels of education. Subscales permit evaluation of the intensity and frequency of exposure to different dimensions of ethnic discrimination, in different settings, and across different
time periods. The Lifetime Discrimination scale and its subscales each have good internal consistency. The subscales are interrelated, but the magnitude of the correlations suggests that each subscale provides unique information. The factor structure of the Lifetime Exposure scale and the findings on the relative levels of exposure to each subdimension of ethnic discrimination parallel the findings obtained by Contrada et al. (2000) on the original PEDQ. The analyses of internal consistency indicate that the items were comprehensible to participants from a range of educational, employment, and ethnic backgrounds.

Results indicate that participants reported having experienced episodes of ethnic discrimination in the past and that many continue to experience exposure to rejection and discrimination. Participants were more likely to experience ethnicity-related social distancing (i.e., exclusion and rejection) and discrimination at work, in comparison to ethnicity-related threat and aggression. The average level of discrimination was almost 2 on a 5-point scale (ranging from 1 to 5), suggesting that participants either experienced most of the 34 events at least occasionally over their lifetimes or experienced a smaller number of the events much more often. As expected, although the majority of individuals reported encountering the highest level of discrimination from Whites, intra-group racism also appeared to be a significant problem for both Blacks and Latinos in this sample.

There was substantial within-group and between-group variability in rates and intensities of exposure. Blacks reported more discrimination than did Latinos. This finding corresponds to other investigators’ data on societal attitudes toward these different groups (Schneider et al., 2000; White & Sedlacek, 1987). The measures also distinguish between American-born and immigrant members of the two minority groups, with the former reporting higher lifetime levels of discrimination. These findings lend a degree of known-group validity to the measures.

Although there were 66 males included in the sample, the majority of respondents were female. This limits our ability to examine interactions of gender with other factors, including age, SES, and ethnicity. In Study 2, we were able to recruit proportionately more males, but greater efforts must be made in future studies to improve participation by males.

Study 2

A brief (17-item) version of the PEDQ-CV was created from the 34-item Lifetime Exposure scale of the full PEDQ-CV to provide a means of assessing perceived ethnic discrimination when time constraints or participant burden make it impractical to administer the full PEDQ-CV. Study 2 provides an opportunity to test the reliability and construct validity of this brief version of the PEDQ-CV.
Method

Participants

A total of 340 individuals completed the Brief PEDQ-CV. Of these, 128 (37.6%) were college students at St. John’s University, and 212 were adult members of the community drawn from two primary-care practices. Data from the community members were drawn from two separate studies. Participants in one study (n = 119) completed measures of ethnic discrimination and coping; and those in the second study (n = 93) also completed measures of personality characteristics, among other variables. The recruitment of participants was identical for both studies. Informed consent was obtained before participants completed questionnaires.

To obtain adequate samples of at least two race/ethnic groups, we concentrated our recruitment efforts at primary-practice sites and campus locations in which we were likely to obtain large numbers of Black or Latino participants. Procedures for matching the ethnicity of the researchers to the ethnicity of participants were the same as in Study 1.

The student sample consisted of 68 men (53.1%) and 60 women. Of this sample, 8 participants were graduate students, and the remainder were currently enrolled in college. The mean age of the sample was 20.4 years (SD = 2.45; range = 18 to 31 years). Slightly more than half were Black (n = 70; 54.7%), and the remainder were Latino (n = 58); 6 individuals did not provide ethnicity data. The majority were born in the United States (n = 106; 87%), and all but 3 were unmarried. Although the sample was composed of students, 71% were also employed at least part-time.

In comparison to the student sample, the community sample as a whole was composed of more women, \( \chi^2(df = 1, N = 340) = 31.85, p < .0001 \); and was significantly older, \( F(1, 332) = 215.35, p < .0001 \). Community members were less educated, \( \chi^2(df = 5, N = 334) = 106.95, p < .0001 \); slightly less likely to be employed; \( \chi^2(df = 1, N = 289) = 3.29, p < .07 \), and somewhat more likely to be foreign born, \( \chi^2(df = 1, N = 259) = 11.42, p < .001 \).

Specifically, the community sample was comprised of 163 women (76.9%) and 49 men (23.1%), with a mean age of 37.8 years (SD = 13.2; range = 18 to 78 years). There were 43 (20.2%) who had completed less than a high school education, 69 (32.6%) who had completed high school, 57 (26.9%) who had completed some college, and 39 (18.4%) who had completed college or some graduate training. The sample included 135 Blacks (63.7%) and 77 Latinos (36.3%). About 69% were American-born, although data regarding place of birth were not available for 75 participants because of clerical error. For marital status, 193 (66%) were single; 59 (20%) were married; 41 (14%) were separated, divorced, or widowed, and 47 did not provide information on marital status.
Measures

_Brief PEDQ-CV_. The Brief PEDQ-CV scale contains a total of 17 items. The first 16 are the four items with the highest factor loadings on each of the subscales created on the basis of the principal components analysis reported in Study 1. An additional item asks about exposure to discrimination from police, an important source of ethnicity-related stress for people of color. This item did not load at a level above .50 on any of the first four factors identified in Study 1.

_Perceived Racism scale_. The Perceived Racism scale (PRS; McNeilly, Anderson, Armstead, et al., 1996) was designed to measure the frequency of Black individuals’ exposure to different types of racist incidents across several settings, as well as emotional and behavioral coping responses to those incidents. The full scale consists of 51 items that cover three dimensions of racism assessed across four domains. The dimensions are frequency of exposure to types of racist incidents, emotional responses to perceived racism, and coping responses. Exposure to discrimination is assessed in the employment, academic, and public domains, with a final scale assessing exposure to racist statements. The emotion and coping items included in the PRS are not directly comparable to the items on the PEDQ-CV. Therefore, they were excluded in the present study to minimize participant burden.

Studies examining the overall internal reliability of the PRS have reported alphas ranging from .87 to .96 (McNeilly, Anderson, Robinson, et al., 1996). The original PRS was designed for use only with African Americans, and the sample in which the authors evaluated the scale consisted of 110 African American college students and 104 African American community members. Its test–retest reliability correlations over a 2-week period ranged from .70 to .80 for the various subscales. The instrument has shown good convergent and discriminant validity (McNeilly, Anderson, Robinson, et al., 1996). A new Latino version has been developed, and preliminary psychometric testing indicates good psychometric properties (Collado & Shirley, 1999).

_Appraisals_. The appraisals measure is based on Folkman and Lazarus’ work (1988a, 1988b) and consists of 12 affect items (rated on a 5-point scale) that were chosen based on their relationship to primary appraisals of threat (worried, fearful, anxious), challenge (confident, eager, hopeful), harm (angry/frustrated, guilty, disappointed), and benefit (happy, pleased, relieved). Participants were asked to indicate how they felt when “they were mistreated because of their ethnicity/race.” These items do not measure appraisals directly—in the sense of immediate, rapid, and not necessarily conscious evaluations of events—but they are indexes of affective responses likely to be linked to these appraisals.

_Defensiveness_. The Marlowe–Crowne scale (Crowne & Marlowe, 1960) is a 33-item, true-false self-report scale used to measure the need of participants to respond to test items in culturally sanctioned ways. It has been shown to have
internal consistencies of .71 for males and .72 for females (O’Grady, 1988), up to .88 for males and females together (Crowne & Marlowe, 1960), and a test–retest reliability of .89 at a 1-month interval (Crowne & Marlowe, 1960).

**Trait anxiety.** The Taylor Manifest Anxiety scale (Taylor, 1953) includes a 20-item short form, which correlates .91 with the full scale. It has an internal consistency reliability of .76, and support for construct validity was demonstrated by Watson and Clark (1984).

**Hostility subcomponents.** Hostile attributions and cynicism were measured with subscales of the MMPI-based Cook and Medley hostility scale (Ho), as identified by Barefoot and colleagues (Barefoot, Dodge, Peterson, & Dahlstrom, 1989). The hostile attributions subscale reflects a tendency to interpret the behavior of others as intended to harm the respondent and is shown in admissions of suspicion, paranoia, and fear of threat to the self. The cynicism subscale assesses beliefs about the degree to which the respondent perceives himself or herself to be treated fairly in comparison to others. Barefoot et al. were able to demonstrate the subsets had acceptable construct validity.

**Results**

The psychometric properties of the Brief PEDQ-CV scale were good. Despite having fewer items, the subscales had only slightly lower internal consistency than did the full subscales formed from the Lifetime Exposure scale of the PEDQ-CV. Means and Cronbach’s alpha coefficients for the Brief PEDQ-CV are shown in Table 5. The pattern of scores for the Brief PEDQ was identical to that for the full PEDQ-CV, with significant differences among subscale scores, $F(3, 1002) = 153.76, p < .001$ ($G$-G correction, $p < .001$). Individuals reported significantly more exclusion/rejection than work discrimination, stigmatization, or threat and aggression. Comparisons between each pair were significant (all $ps < .001$).

As shown in Table 5, both student and community groups obtained high alpha levels for the Lifetime Brief PEDQ-CV. There were some differences between student and community groups in alpha levels for the subscales. However, despite the significant differences in educational level between the groups, alpha levels were above .65 for all subscales for both groups.

There were no differences between the student and community samples on overall levels of discrimination, as assessed by the Brief PEDQ Lifetime Exposure scale, but there were differences in the types of discrimination the groups faced. Students reported significantly more stigmatization than did community members, $F(1, 305) = 9.92, p < .01$; whereas community members reported more exposure to threat and harassment than did students, $F(1, 303) = 4.07, p < .05$. Community members tended to report more discrimination at work, although the between-group difference did not reach significance, $F(1, 338) = 2.81, p < .10$. 
There were no between-group differences in social exclusion. When analyses were repeated controlling for gender and age, only the between-group differences in exposure to ethnicity-related threat remained significant ($p < .02$), with the community sample reporting higher levels of lifetime exposure to threat and harassment than the student sample.

Between ethnic-group analyses also suggest that the measure was comprehensible to both Blacks and Latinos. The groups displayed equivalent and satisfactory alpha levels for the Lifetime Exposure scale (Blacks, $\alpha = .87$; Latinos, $\alpha = .88$) and every subscale (all $\alpha$s = .69 to .81) except for the exclusion subscale, in which the alpha level obtained by Black participants ($\alpha = .74$) exceeded that obtained by Latino participants ($\alpha = .62$). In contrast to Study 1, there were no significant between-ethnic group differences on the Lifetime Exposure scale or any of the subscales.

**Evaluating Construct Validity: Tests of Convergent, Concurrent, and Discriminant Validity**

A series of tests of construct validity were performed in the student and community samples. To limit participant burden, the student sample was employed in tests of convergent validity, and the community sample was employed in tests of concurrent and discriminant validity. Community participants received the appraisal and personality measures used for tests of concurrent validity because

<table>
<thead>
<tr>
<th>Scale</th>
<th>Alphas (full group/community/student)</th>
<th>Full group ($n = 340$)</th>
<th>Student ($n = 128$)</th>
<th>Community ($n = 212$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifetime exposure, Brief PEDQ-CV</td>
<td>.87/.87/.88</td>
<td>2.05 0.65</td>
<td>2.05 0.65</td>
<td>2.05 0.65</td>
</tr>
<tr>
<td>Exclusion/rejection</td>
<td>.70/.70/.69</td>
<td>2.58 0.89</td>
<td>2.55 0.87</td>
<td>2.60 0.90</td>
</tr>
<tr>
<td>Stigmatization/disvaluation</td>
<td>.74/.70/.78</td>
<td>1.77 0.79</td>
<td>1.97 0.83</td>
<td>1.66 0.74**</td>
</tr>
<tr>
<td>Discrimination at work/school</td>
<td>.69/.71/.65</td>
<td>2.16 0.86</td>
<td>2.06 0.74</td>
<td>2.23 0.92</td>
</tr>
<tr>
<td>Threat/aggression</td>
<td>.80/.75/.88</td>
<td>1.65 0.84</td>
<td>1.53 0.74</td>
<td>1.72 0.84*</td>
</tr>
</tbody>
</table>

* $p < .05$. ** $p < .01$. 
we needed to determine if these measures were feasible for administration with a community sample for our other research.

We examined convergent validity by correlating scores on the Brief PEDQ-CV with those on the Black or Latino version of the PRS (McNeilly, Anderson, Armstead, et al., 1996; McNeilly, Anderson, Robinson, et al., 1996; McNeilly, Robinson, et al., 1996). The Lifetime Discrimination scale of the Brief PEDQ-CV was correlated with the Black version of the PRS ($r = .61, p < .001$) in the sample of 70 Black students and was also highly correlated with the Latino PRS ($r = .57, p < .001$) in the sample of 58 Latino students. This suggests that the scales have good convergent validity with one published and well-regarded measure.

Concurrent and discriminant validity were examined in the community sample by comparing scores on the Lifetime Discrimination scale of the Brief PEDQ-CV with measures of primary appraisals of racist interactions. As predicted, Brief PEDQ-CV Lifetime Discrimination scores were associated positively with primary appraisals of both threat ($r = .43, p < .0001$) and harm ($r = .46, p < .0001$), providing some evidence of concurrent validity. In contrast, we expected appraisals of challenge or benefit to be a function of perceived coping resources and personality style, but not a function of exposure to a discriminatory stressor. The scales demonstrate some discriminant validity, as they were not significantly correlated with primary appraisals of challenge ($r = .09, p > .22$) and were only weakly correlated with perceptions of benefit ($r = .18, p < .01$).

A subsample of 93 community members participated in an additional study that involved administration of four trait measures of anxiety, defensiveness, hostile attributions, and cynicism. As predicted, Brief Lifetime PEDQ-CV scores were correlated positively with trait anxiety ($r = .35, p < .001$), hostile attributions ($r = .39, p < .0002$), and cynicism ($r = .44, p < .0001$); and negatively correlated with defensiveness ($r = -.30, p < .01$).

As a further test of construct validity, we examined the relationship of the Brief PEDQ-CV Lifetime Exposure score to appraisals of threat and harm, controlling for these personality measures. The correlations of the Brief PEDQ-CV to appraisals of harm ($r = .37, p < .001$) and threat ($r = .27, p < .02$) remained significant after controlling for the personality measures.

**Between-Group Comparisons**

Multiple regression analyses were used to evaluate between-ethnic group differences in the relation of perceived racism scores to both appraisals and personality variables, indexes used to test construct validity. Overall, the results suggest that the correlates of perceived ethnic discrimination were similar for both Blacks and Latinos, supporting the notion that the scale demonstrates concurrent validity.
in both groups. Specifically, there were no significant interactions of ethnic/race
group and lifetime exposure to racism for any appraisal measure. Lifetime Brief
PEDQ scores were correlated positively with appraisals of threat and harm for
both Blacks (threat, \( r = .45, p < .0001 \); harm, \( r = .43, p < .0001 \); \( n = 131 \))
and Latinos (threat, \( r = .40, p < .0005 \); harm, \( r = .50, p < .0001 \); \( n = 74 \)).

Similarly, there were no significant interactions of ethnicity and Lifetime
PEDQ-CV for three of the personality measures, including trait anxiety,
hostile attributions, and cynicism (Blacks: anxiety, \( r = .34, p < .02 \);
cynicism, \( r = .48, p < .0008 \); hostile attributions, \( r = .51, p < .0004 \); and Latinos:
anxiety, \( r = .35, p < .02 \); cynicism, \( r = .42, p < .005 \); hostile attributions, \( r = .27, p < .10 \)).
There was a marginally significant interaction of ethnicity and Lifetime Brief
PEDQ-CV for defensiveness (\( B = -0.11, SE = .05 \), \( t = -1.94, p < .06 \)).
Lifetime Brief PEDQ-CV was inversely related to defensiveness for Latinos
(\( r = -.50, p < .001 \)), but not at all related to defensiveness among Blacks (\( r = -.11, p > .44 \)).

Similar analyses were performed to evaluate the correlates of perceived
ethnic discrimination in groups varying in educational level. Participants were
split at the median educational level, with those in the low education group
(\( n = 115 \)) having, at most, a high school diploma; and those in the high education
group having attended at least some college (\( n = 93 \)). There were no significant
interactions between level of education and Brief PEDQ scores for any measure
of appraisal or personality. The Brief PEDQ Lifetime score was significantly
positively associated with appraisals of threat and harm both for those with low
levels of education (threat, \( r = .31, p < .01 \); harm, \( r = .49, p < .001 \)) and those
with high levels of education (threat, \( r = .62, p < .001 \); harm, \( r = .42, p < .001 \)).
The Brief PEDQ-CV was significantly correlated with each personality dimen-
sion for the high education group (anxiety, \( r = .49, p < .001 \); cynicism, \( r = .42, p < .01 \); hostile attributions, \( r = .54, p < .001 \); defensiveness, \( r = -.31, p < .05 \)).
The effects were in the same direction, although not uniformly significant, for the
less educated group (anxiety, \( r = .20, ns \); cynicism, \( r = .51, p < .001 \); hostile attri-
butions, \( r = .24, ns \); defensiveness, \( r = -.28, p < .07 \)).

Discussion

Psychometric properties of the Brief PEDQ-CV, a 17-item version of the
PEDQ-CV, were evaluated in a sample of college students and community-
dwelling adults. The results indicate that the internal consistency of the brief ver-
sion and its subscales was adequate. Although the overall level of exposure to
discrimination did not differ between students and community members, there
were significant differences in the subtypes of ethnic discrimination to which the
groups were exposed. Community members were exposed to significantly more
threat and harassment than were students. These data suggest that using subscales
assessing different forms of interpersonal maltreatment may highlight potentially
important distinctions in the types of everyday experiences of ethnicity-related stress experienced by different groups.

The scale displayed good convergent validity with a well-established measure of perceived racism, and demonstrated construct validity when Brief PEDQ-CV scores were examined in relation to measures of appraisals of racist situations and measures of relevant personality characteristics. Correlations of the Brief PEDQ-CV with personality characteristics were small to moderate in size, indicating that the Brief PEDQ is not merely another measure of cynicism, defensiveness, or hostility. Correlations of lifetime ethnic discrimination to appraisals of threat and harm remained significant, even when controlling for relevant personality characteristics. Evaluation of the discriminant validity of the scale yielded more mixed results. As predicted, scores on the Lifetime Brief PEDQ were not correlated with appraisals of challenge, but were weakly positively correlated with perceptions of benefit. Although the negative consequences of discrimination appear to outweigh the positive, individuals may experience pride and satisfaction from managing the difficulties associated with discrimination. Further tests with more appropriate measures are necessary to evaluate discriminant validity more fully.

General Discussion

We tested the PEDQ-CV or the Brief PEDQ-CV in over 600 people of color, from a range of SES levels and ages. The samples included college students as well as a large number of community residents from a range of socioeconomic backgrounds, making this one of the most diverse samples used to test a perceived discrimination scale. The instruments are easy to use and can be completed by those with limited education. Subscales assess different types of interpersonal maltreatment associated with ethnic discrimination.

The original PEDQ (Contrada et al., 2000) was administered to a group including many Whites and relatively small numbers of Blacks, Latinos, and Asians. The current data on two ethnic/racial groups (i.e., Blacks and Latinos) suggest that the PEDQ-CV scales can be used effectively across different ethnicities. Additional tests are under way using the PEDQ-CV in samples of Asians and different groups of Whites.

A series of known-group comparisons provides some evidence for the measure’s construct validity. In Study 1 (but not in Study 2), Blacks reported more exposure to discrimination than did Latinos, a finding consistent with evidence that the public continues to view Blacks more negatively than Latinos (Schneider et al., 2000; White & Sedlacek, 1987). In addition, American-born participants reported more exposure to ethnic or racial discrimination than did foreign-born participants. This is consistent with suggestions that experiences of discrimination may differ in individuals originating from countries in which the majority culture reflects the same versus different ethnicity (Ogbu, 2002).
The Brief PEDQ-CV has good convergent validity, as it was correlated with the Black and Latino versions of the Perceived Racism scale (Collado & Shirley, 1999; McNeilly, Anderson, Armstead, et al., 1996). In addition, the brief version of the Lifetime Discrimination scale and its subscales showed preliminary evidence of construct validity, with those who reported higher levels of exposure to discrimination also indicating that they felt more threatened and harmed by these experiences. In a smaller subgroup, scores on the Brief PEDQ-CV were positively associated with trait measures of anxiety and hostility; and negatively associated with defensiveness, findings consistent with those of other researchers who have reported on the negative psychological consequences of exposure to racism (Jackson et al., 1996; Schulz et al., 2000).

The data indicate that the vast majority of respondents (about 85%) had been exposed to discrimination over the course of their lifetimes. These findings are consistent with other reports of rates of discrimination among people of color (Broman, 1996; Krieger & Sidney, 1996). On average, participants reported having been exposed to many aspects of discrimination at least occasionally over the course of their lifetimes.

Participants were most likely to report experiencing discrimination in public places (e.g., restaurants, stores). These findings are similar to those of Feagin (1991; Feagin & Sikes, 1994), who suggested that there are fewer constraints against discriminatory behavior in public venues compared to more formal locations, such as medical settings or the criminal-justice system.

There are several limitations to the present studies. The samples may present some difficulty, as individuals waiting to see a physician at a primary-care practice completed about half the questionnaires. It is possible that their health status influenced their response to the questionnaires. However, this seems unlikely, as average scores obtained from patients on the Brief PEDQ-CV Lifetime Discrimination scale did not differ from those obtained from presumably healthy students. Despite the limitations, these data are valuable because this is the type of sample likely to be targeted in studies of ethnicity, discrimination, and health.

There was an overrepresentation of relatively poor individuals, as the primary-care practices are intended to serve low-income communities. However, the samples also contained healthcare providers and other employees from the centers, who are likely to have more resources than the patients they serve. Analyses indicate that there were no differences between patient and employee groups in Lifetime Exposure to Discrimination scores, nor were there group differences in the reliability of the measure. The data were collected on individuals who either live or work in largely minority communities; and in future studies, it will be useful to compare Lifetime Exposure to Discrimination scores of individuals who have high versus low levels of contact with individuals of other ethnic groups.

There was also a gender imbalance in the data, but there were still substantial numbers of men in both samples. No gender differences emerged when assessing
frequency or intensity of exposure to ethnic discrimination, or when examining
the relationship of discrimination to distress or personality measures. Most
importantly, these data were collected in a sample of convenience and, although
the participants possess characteristics that make their data highly relevant to
research on discrimination and health, they were not a nationally representative
sample.

The PEDQ-CV does not contain detailed questions about institutional racism
in terms of specific policies and procedures in the workplace or other institutions.
Instead, there is a heavy focus on discrimination in the context of interpersonal
interactions. This is consistent with recent efforts to understand the social psy-
chophysiology of cardiovascular disease and other diseases (Carroll & Sheffield,
1998; Kamarck, Peterman, & Raynor, 1998), and with an emphasis on the ways
in which everyday interactions (including ethnicity-related interactions) may be
linked to health outcomes (Swim, Cohen, & Hyers, 1998).

There is a growing body of literature suggesting that negative interpersonal
interactions are associated with increased cardiovascular activation (whereas
positive or intimate interactions are associated with reduced activation;
Brondolo, Karlin, Alexander, Bobrow, & Schwartz, 1999; Brondolo et al., 2003;
Guyll & Contrada, 1998; Guyll, Matthews, & Bromberger, 2001; Schneider
et al., 2000; Schneider, Julius, & Karunas, 1989). The PEDQ-CV examines
ethnicity-related negative interpersonal interactions, permitting investigators to
test hypotheses about a particular set of negative social interactions that may
have significant health consequences and affect large numbers of vulnerable indi-
viduals.

The PEDQ-CV does not permit weighting the importance of different types
of interactions or combine assessments of the severity of distress with the fre-
quency of occurrence. Instead, we chose to use subscales to separate different
types of events that may vary in their intensity or severity (i.e., being threatened
vs. being ignored). In addition, the rating system inquires about the frequency
and timing (i.e., past week vs. lifetime) of exposure to discriminatory events, but
further study is needed to understand the nature of dose-response effects of
racism on health outcomes.

There are differences of opinion about the utility of separating affective and
coping responses from the assessment of the events themselves (Landrine &
Klonoff, 1996; Utsey & Ponterotto, 1996). The PEDQ-CV assesses only the
occurrence of events, not the individual’s affective or coping responses to these
events. Other measures (e.g., personality or appraisal scales) were used to evalu-
ate affective and coping responses to the events. As we were interested in exam-
ing individual differences both in exposure to racism and in the psychological
correlates of this exposure, a measurement strategy that separated the assessment
of events from affective and coping responses was preferable. Other research
questions may require different types of measures.
As is the case for all self-report measures of ethnic discrimination, the PEDQ-CV may lack sensitivity. Specifically, self-report measures require the respondent to indicate the degree of exposure to events or interactions identified in the respondent’s mind as racist or discriminatory. However, individuals may be exposed to interactions or situations that are, in fact, discriminatory, but that are not identified as such by the participant because of concerns about social desirability or loss of control. This may mean that the average values obtained for the scales may be underestimates of the level of exposure to racial/ethnic discrimination.

The measures may also lack specificity and reflect not just exposure to racial/ethnic discrimination, but also exposure to negative events that do not reflect this type of discrimination, as well as individual personality characteristics (e.g., cynicism, anxiety). This issue is further complicated because chronic exposure to the social stress of racism may lead to negative affectivity or hostility. In turn, these personal characteristics may lead to an increased sensitivity to future episodes and potentially to the overreporting of discriminatory events. However, it is worth noting that the relationship of perceived ethnic discrimination to appraisals of discrimination-related harm remained significant, even when controlling for hostility, anxiety, and defensiveness. In future studies, it may be important to understand whether the perceptions of mistrust are specific to situations in which race is likely to play a role versus situations in which it is not.

A final issue relates to the notion of a gold standard of assessment. As is the case for many psychological constructs, it is not possible to measure exposure to racism objectively because identifying a situation or interaction as racist requires making attributions about another person’s motivation. Therefore, it is useful to have multiple methods of measurement and to examine those personal factors that might influence response, such as denial or hostility.

Given the significant racial disparities in health status, particularly the wide gap between Blacks and Whites in the prevalence and severity of cardiovascular disease, it is important to have tools that can be used to investigate psychosocial stressors that disproportionately affect people of color (Brondolo et al., 2003). The PEDQ-CV and the Brief PEDQ-CV are new instruments that can be used in studies of a significant stressor: perceived racism or ethnic discrimination. Subscale scores can be employed to evaluate the patterns of affect, coping, and health risk associated with different dimensions of discrimination. Future studies can examine factors that exacerbate or attenuate the impact of this stress on health.

References


