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Perceptions of Racism in Children and Youth (PRaCY): properties of a self-report instrument for research on children's health and development

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Experiences of racial discrimination have been demonstrated to be related to racial and ethnic disparities in mental and physical health and healthcare. There has been little study, however, of the relationship between racism and health in children, and few psychometrically valid and reliable instruments to measure Perceptions of Racism in Children and Youth (PRaCY) exist. This paper reports on the development and testing of such an instrument, the PRaCY.

Development of the instrument began with open-ended qualitative interviews, from which a proto-questionnaire was created. The questionnaire gathered information on the prevalence, attribution, emotional responses, and coping responses to 23 situations identified by participants in the qualitative phase. The proto-questionnaire was administered to 277 children between the ages of 8 and 18 years (38% Latino/a, 31% African-American, 19% multiracial/multicultural, 7% West Indian/Caribbean, and 5% Other). Item analysis resulted in two developmentally appropriate 10-item instruments (one for ages 7–13, another for ages 14–18). Internal consistency reliability was strong (alpha = 0.78 for both versions of the instrument). Confirmatory factor analysis demonstrated good fit for both versions (younger-Comparative Fit Index (CFI): 0.967, Root Mean Square Error of Approximation (RMSEA): 0.047; older-CFI: 0.934, RMSEA: 0.056). Differential item functioning analyses demonstrated no group-specific biases in item response. PRaCY scores were appropriately associated with higher depressive symptom scores and elevated anxiety scores in the younger sample.

Results indicate that the PRaCY is a valid and reliable instrument that measures perceptions of racism and discrimination in children and youth aged 8–18 from diverse racial/ethnic backgrounds.

Keywords: racism; discrimination; children; disparities; health

Introduction

Racism and discrimination are fundamental aspects of our current social structure and constitute pervasive stressors in the daily lives of many racial and ethnic minority individuals. In the past 15–18 years, racial discrimination has begun to be

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studied as a contributory factor in the occurrence of physical and mental health conditions (Krieger 1990, 2000, Krieger and Sidney 1996, Williams *et al.* 2003, Paradies 2006), as well as in studies of healthcare outcomes (Smedley *et al.* 2002). Racism has been conceptualized as an underlying mechanism that may contribute to racial/ethnic health and healthcare disparities (Karlsen and Nazroo 2002, Krieger *et al.* 2005). According to Williams and colleagues, racism can create discrepancies in socioeconomic status which can then: (1) result in differential health outcomes; (2) influence the quality and quantity of medical care; and (3) adversely effect psychological and physiological functioning (Williams *et al.* 1994, Clark *et al.* 1999).

Most of the studies demonstrating effects or associations between racism and health have been conducted with adults. Very little data are available on racism and children's health, or its contribution to racial and ethnic child health or health care disparities. In a recent review of the literature, only 40 papers were found that reported on empirical studies of association between racism and child health conditions, and 26 (65%) of these studies reported on a behavioral or mental health condition (Pachter and García Coll 2009). Eight papers addressed pregnancy outcome (i.e., prematurity or low birthweight). The other six papers covered the rest of child health and health care. That there are so few empirical studies on the effects of racism – a potentially significant contributor to racial/ethnic disparities in child health – is a cause for concern.

Also of concern is the fact that the reviewed literature displayed no common method for operationalizing or measuring racism in children. In the 40 studies reviewed, 31 different question sets or versions of instruments were used to measure racism, and of the 28 studies that included self-reported data from children, only 10 used instruments that were psychometrically tested on children of the same age as the study participants (Pachter and García Coll 2009).

Most of the commonly used instruments that measure self-reported perceptions of racism were developed for adults or college-age students (Utsey 1998, Krieger *et al.* 2005, Kressin *et al.* 2008). Most instruments were created to document the frequency of occurrences of perceived racist events. Although frequency is important, stress theory suggests that other psychological dimensions, such as emotional and coping responses contribute to the effects of a stressful event (Lazarus and Folkman 1984). If racism is to be studied as a factor that contributes to poor health outcomes in children and youth, it will be necessary to have available valid and reliable instruments that comprehensively measure perceptions of racism in a multidimensional fashion (taking into account emotional response and coping response), that are sensitive to the specific contexts in children's lives where racism may occur, and to be appropriate from a developmental perspective. The present study describes the development and testing of one such instrument, the Perceptions of Racism in Children and Youth (PRaCY) instrument.

Methods

Phase 1: qualitative data phase

Instrument development began with a qualitative phase, where semi-structured open-ended interviews were conducted with 14 minority children between the ages of 9 and 16. The race/ethnicities of the children were African-American ($n = 10$),

Latino/Puerto Rican ($n = 2$), and multiracial/multicultural ($n = 2$; African-American/White, Cape Verdean/White). The subjects lived in both the inner city and the suburbs; some were educated in their neighborhood schools and others were bussed to suburban schools.

Interviews were conducted by trained research assistants who were of similar racial/ethnic backgrounds as the subjects. The interviews began with a general discussion of the children's life and progressed to discussions of discrimination and racism in their lives. Interviews lasted between 45 and 75 minutes, and were audio-recorded and transcribed. This study was approved by the Institutional Review Board at Saint Francis Hospital and Medical Center, Hartford, Connecticut, USA.

Transcriptions were reviewed for content related to experiences of racism and discrimination. Specific contexts where racism was experienced were noted, as was the subject's responses to the events.

Phase 2: development of a proto-questionnaire

Data from the qualitative interviews described earlier were used to develop a proto-questionnaire. The proto-questionnaire consisted of 23 situations (taken from the qualitative interviews) where children experienced racial discrimination (Table 1). The introduction to the questionnaire stated the following:

> When people are racially discriminated against, they are treated badly, not given respect, or are considered inferior because of the color of their skin, because they speak a different language or have an accent, or because they come from a different country or culture.
>
> For each of the following situations, think whether you have ever in your life felt discriminated against because of your color, language or accent, or because of your culture or country of origin, and answer the following:

For each of the 23 situations, respondents were asked if this had ever happened to them. For each situation/item answered affirmatively, respondents then answered a series of questions regarding frequency, attribution, emotional response, and coping response to the event. This schema is based on one utilized by McNeilly and colleagues in their Perceived Racism Scale developed for adults (McNeilly *et al.* 1996). For the questions regarding attribution, emotional response, and coping response respondents were able to choose more than one response, and could add other responses not listed. The advantage of these additional sub-scales is that they provide information pertaining to cognitive appraisal, emotional, and coping responses to such events, in line with psychosocial stress theory (Lazarus and Folkman 1984, Folkman *et al.* 1986a, 1986b).

Phase 3: instrument development and validation

After obtaining parental consent and child consent/assent, the proto-questionnaire was administered to 227 participants, aged 7–18 recruited from four settings: (a) Boys and Girls Clubs in Hartford, Connecticut, USA; (b) a community health advocacy organization in Hartford that has after-school programs for youth; (c) a summer high school enrichment program in Providence, Rhode Island, USA; and

Table 1. Items in the proto-questionnaire.

1. Watched closely or followed around by security guards or store clerks at a store or the mall
2. Got poor or slow service at a restaurant or food store
3. Were treated badly by a bus driver
4. Got poor or slow service at a store
5. Were treated unfairly by a police officer
6. Accused of something you didn't do at school
7. Unfairly called down to the principal's office
8. Got grades you didn't deserve
9. Treated badly or unfairly by a teacher
10. Watched more closely by security at school
11. Someone didn't want to be friends with you
12. You had the feeling that someone was afraid of you
13. Someone called you an insulting name
14. People hold their bags tight when you pass them
15. Someone made a bad or insulting remark about your race, ethnicity, or language
16. Someone didn't want to play or hang out with you
17. Someone was rude to you
18. People assume you're not smart or intelligent
19. You didn't get the respect you deserved
20. You weren't chosen for a sports team
21. Teachers assume you're not smart or intelligent
22. You're called on less in class by teachers
23. Have you ever seen your parents or other family members treated unfairly or badly because of the color of their skin, language, accent, or because they come from a different country or culture?

For each item answered positively, respondent completes the following:

- How often has this happened (once, twice, about once a year; about once a month; weekly)
- Why do you think it happened (the color of my skin, my race, my ethnicity, or culture, my language, my accent, my age, my sex/gender, the clothes I wear, the music I listen to, other reason – describe)
- How did it make you feel? (angry, mad, hurt, frustrated, sad, depressed hopeless, powerless, ashamed, strengthened, other – describe)
- How did you deal with it? (ignored it, accepted it, spoke up, kept it to myself, lost interest in things, prayed, tried to change things, hit someone/something, tried to forget it, worked hard to prove them wrong, other – describe).

(d) a high school in Providence. This study was approved by the Institutional Board of the Connecticut Children's Medical Center, Hartford, Connecticut, USA. In addition to the proto-questionnaire and a demographic form, respondents also completed the Children's Depression Inventory-Short Form (CDI-S) and the Revised Child Manifest Anxiety Scale (RCMAS). Previous studies have demonstrated an association between perceptions of racism and both depression and anxiety in youth (Whitbeck *et al.* 2001, Simons *et al.* 2002, Sellers *et al.* 2003, Szalacha *et al.* 2003, Wong *et al.* 2003, Gibbons *et al.* 2004, Brody *et al.* 2006, Greene *et al.* 2006, Sellers *et al.* 2006).

The CDI-S is a 10-item survey that detects symptoms of depression in children and adolescents between the ages of 6 and 17. It is one of the most commonly used depression instruments for children and has been shown to have adequate psychometric properties with diverse groups of children (Kovacs 1992, Davanzo *et al.* 2004). The RCMAS is a 37-item scale that measures anxiety in children and adolescents 6–19 years of age (Reynolds and Richmond 1985). It has four sub-scales (Physiological Anxiety, Worry/Oversensitivity, Social Concerns/Concentration, and Lie). It has been tested with African-American and Hispanic children and has been shown to have good internal consistency (0.79 and 0.80, respectively), with little differential item bias among ethnic groups (Reynolds *et al.* 1983).

Results

Our sample was divided into a younger cohort (ages 8–13, $n = 150$) and an older cohort (ages 14–18, $n = 127$). Table 2 presents the sociodemographic characteristics of the samples. Each cohort was evenly divided by sex. The racial/ethnic breakdown of the sample is also provided in the table. Multicultural is defined as self-identified as having multiple cultural identities or heritages, for example, African-American and Latino, Latino and White, Native American and Black, etc. The participants in

Table 2. Sociodemographic characteristics of the younger and older cohorts ($N = 277$).

	Younger (8–13) ($n = 150$)	Older (14–18) ($n = 127$)	Total ($n = 277$)
Characteristic	*n* (%)	*n* (%)	*n* (%)
Sex			
Female	80 (53.3)	67 (52.8)	147 (53.1)
Male	70 (46.7)	60 (47.2)	130 (46.9)
Ethnicity			
Latino/Latina	64 (42.7)	40 (31.5)	104 (37.5)
African-American	45 (30.0)	40 (31.5)	85 (30.7)
West Indian/Caribbean	13 (8.7)	7 (5.5)	20 (7.2)
Multicultural	25 (16.7)	28 (22.0)	53 (19.1)
Other	3 (1.3)	12 (9.4)	15 (5.4)
Grade			
1st	1 (0.7)		1 (0.4)
2nd	8 (5.3)		8 (2.9)
3rd	15 (10.0)		15 (5.4)
4th	30 (20.0)		30 (10.8)
5th	23 (15.3)		23 (8.3)
6th	24 (16.0)		24 (8.7)
7th	21 (14.0)	2 (1.6)	23 (8.3)
8th	21 (14.0)	12 (9.4)	33 (11.9)
9th	7 (4.7)	37 (29.1)	44 (15.9)
10th		31 (24.4)	31 (11.2)
11th		28 (22.0)	28 (10.1)
12th		17 (13.4)	17 (6.1)

each cohort were fairly evenly distributed in each of the grades in school. Although we did not obtain any individual socioeconomic status data on participants, the four locations serve a predominantly poor, inner city group of children.

We examined the distribution of sociodemographic characteristics and the response patterns for the 23 items in the proto-questionnaire for each of the cohorts, based on inter-item correlations and frequency distributions of responses. This resulted in measures of perceptions of racism that were both developmentally appropriate and relatively short. The 10 items selected for the two PRaCY instruments (younger and older child versions) are presented in Table 3. These items were answered positively 23–65% of the time. Data on the items in the experience of racism instrument for each cohort are provided in Table 3. As anticipated, the racism scores were higher for the older participants than the younger ones (Older $X = 4.47$, SD $= 2.82$ and Younger $X = 3.24$, SD $= 2.72$). Perceptions of racism were significantly higher in the older cohort for the African-American ($\beta = 0.35$) and Latino/a ($\beta = 0.31$) respondents compared to all others. For the younger cohort, Latino/a ($\beta = 0.31$) children reported significantly greater perceptions of racism. In addition, the scores on scale were significantly higher by age ($\beta = 0.36$) and for girls ($\beta = 0.18$). Each indices' reliability, assessed by Kuder-Richardson 20, was acceptable (Older alpha $= 0.78$, Younger alpha $= 0.78$).

Table 3. PRaCY items by cohort ($N = 277$).

Item	Younger (8–13) ($n = 150$) Percentage (%) of positive response	Older (14–18) ($n = 127$) Percentage (%) of positive response
1. Watched closely or followed around by security guards or store clerks at a store or the mall	27.3	59.1
2. Got poor or slow service at a restaurant or food store	37.3	–
4. Got poor or slow service at a store	23.3	–
5. Were treated unfairly by a police officer	–	40.2
6. Accused of something you didn't do at school	37.3	35.4
9. Treated badly or unfairly by a teacher	34.7	37.0
12. You had the feeling that someone was afraid of you	24.0	34.6
13. Someone called you an insulting name	40.0	51.2
15. Someone made a bad or insulting remark about your race, ethnicity, or language	38.7	64.6
17. Someone was rude to you	28.0	42.5
18. People assume you're not smart or intelligent	–	42.5
23. Have you ever seen your parents or other family members treated unfairly or badly because of the color of their skin, language, accent, or because they come from a different country or culture?	34.0	40.9
Summary score (M, SD)	3.25, SD $= 2.72$	4.47, SD $= 2.82$

Model fit

We then fit a confirmatory factor analysis model to the data using LISREL 8.5 (Joreskog and Sorbom 1996); the Chi-square test, Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA) were used to asses model fit (Bollen 1989, Rigdon 1996). All items on the younger and older instruments were positively correlated, with inter-item correlations ranging from 0.26 to 0.53. The confirmatory factor analyses for the younger cohort identified two correlated error variances in the younger scale between four items (9 and 12, and 13 and 15). With the inclusion of this correlated variance, the model produced a good fit to the data for a single underlying factor ($\chi^2_{(df=33)}=44.0$, $p=0.10$; CFI $=0.967$; RMSEA $=0.047$). Factor loadings ranged from 0.40 to 0.68 and were all significant. The confirmatory factor analyses for the older cohort did not identify any correlated error variances. This model produced a good fit to the data for a single underlying factor ($\chi^2_{(df=35)}=48.7$, $p=0.06$; CFI $=0.934$; RMSEA $=0.056$). Factor loadings ranged from 0.44 to 0.69; all loadings were significant.

Differential item functioning (DIF)

We then tested the items for differential item functioning (DIF) among participants. DIF occurs when members of a particular group give responses to specific items that are higher or lower than that would be anticipated based on an underlying trait level. The occurrence of DIF can result in a biased comparison of scale scores. Using a multiple-indicator multiple-cause (MIMIC) approach (Fleishman and Lawrence 2003), we examined age, sex, and ethnicity as potential sources of DIF. Ethnicity was collapsed into four groups (Latino, African-American, multicultural, other). We first estimated a no-DIF base model (no direct effects of covariates on individual items after adjusting for the latent trait) and examined modification indices (MIs) for evidence of DIF. The fit of these models was evaluated by the Chi-square test, CFI, and the RMSEA.

The no-DIF base model for the older cohort (Figure 1) examines the direct effects of covariates on individual items after adjusting for the latent trait, which are estimated in the MIs. If there were MIs greater than 10, we would observe bias. When fit, the no-DIF specification provided an excellent fit to the data ($\chi^2_{(df=85)}=92.45$, $p=0.272$; CFI $=0.977$; RMSEA $=0.026$). We found only two potential DIF effects: Multicultural and Item 5 (MI $=4.62$) and Age and Item 5 (MI $=5.01$), both well under the MI cut-off of 10. The items in the instrument were not biased by age, sex, or ethnicity for the older cohort. Finally, the DIF model cohort confirmed the prior analyses of the structure of the scale for the older cohort, with factor loadings for individual items ranging from 0.39 to 0.69.

The DIF model for the younger cohort was quite similar to the older model (Figure 2). The no-DIF specification provided a good fit to the data ($\chi^2_{(df=82)}=94.76$, $p=0.16$; CFI $=0.971$; RMSEA $=0.032$). The two suggested MIs were from Multicultural to Item 1 and Item 4 (MI $=4.20$ and 4.84, respectively, again under the cut-off of 10). Thus, there were no group-specific biases in the item responses. The DIF model confirmed the prior analyses of the structure of the scale for the younger cohort, with factor loadings for individual items ranging from 0.37 to 0.67.

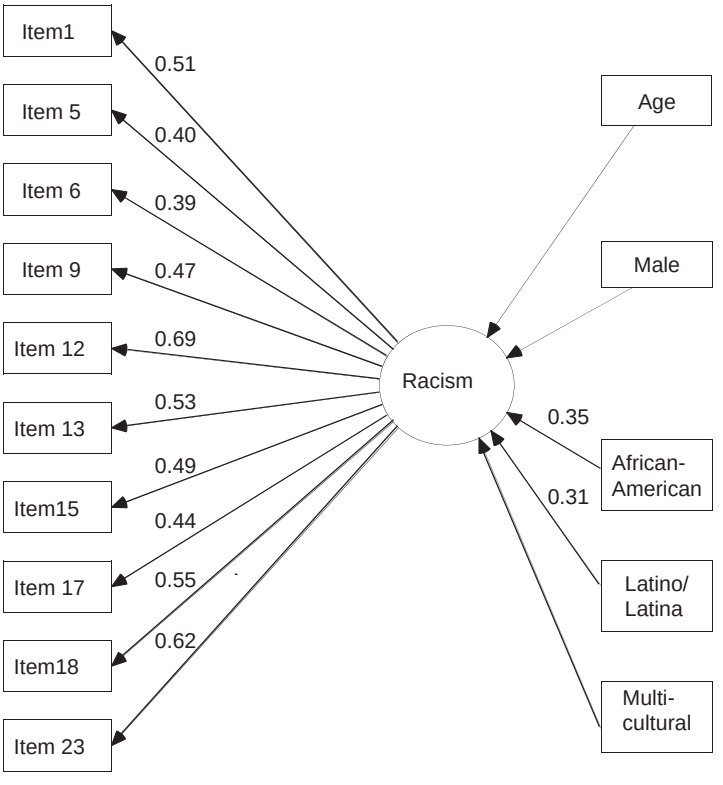

Figure 1. Differential Item Functioning (DIF) model: PRaCY-older version.
Note: All standardized coefficients shown are significant at $p < 0.01$.
$\chi^2_{(df=85)} = 92.45$, $p = 0.272$; CFI = 0.977; RMSEA = 0.026.

Validity

The results of the structural equation models confirm that the PRaCY scales measure a single factor model of perceptions of racism. The confirmatory factor analysis models demonstrate excellent fit and the DIF models lend further evidence of validity in that no evidence of differential group bias was found (Figures 1 and 2).

In addition to the confirmatory factor analysis and DIF validation, construct validity was further assessed by analyzing the correlations between the PRaCY and our measures of depression (Children's Depression Inventory [CDI]) and anxiety (Revised Child Manifest Anxiety Scale [RCMAS]). The distributions of the CDI scores for both young and old cohorts exhibited strong floor effects. We therefore dichotomized the scores into no depressive symptoms for the lower 75% and heightened depressive symptoms for the upper 25%. In the younger cohort, those with no depressive symptoms reported a mean PRaCY score of 3.0 (SD = 2.54) which was significantly lower than those who reported high depressive symptoms with a mean PRaCY score of 4.0 (SD = 3.12, $t = 2.00$, $p < 0.05$). There were no significant differences in racism based on depressive symptoms in the older cohort. There were no significant correlations between the PRaCY and the age and gender normed RCMAS anxiety scores for the older cohort. There were, however, significant correlations between PRaCY scores and the age and gender normed

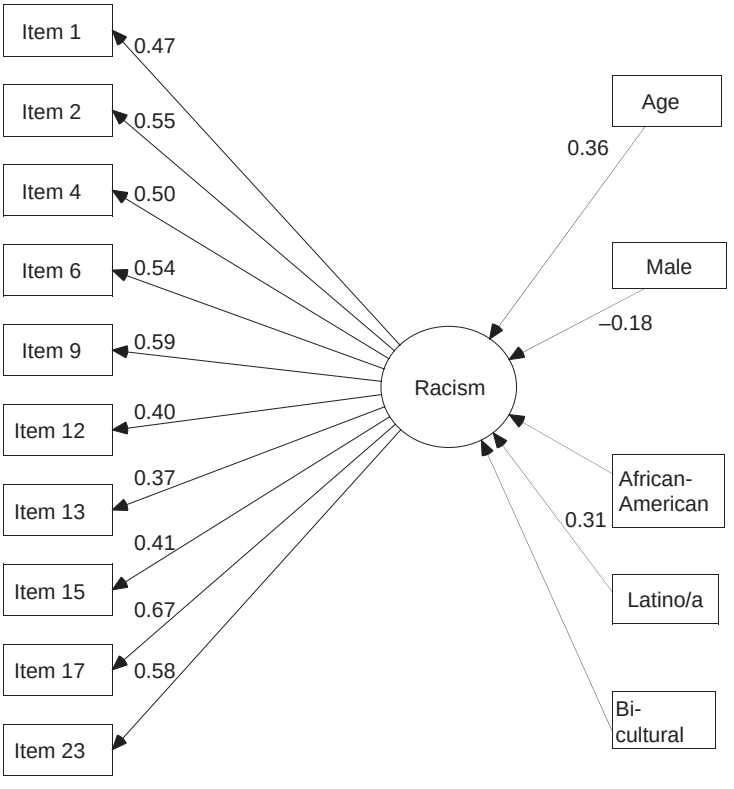

Figure 2. Differential Item Functioning (DIF) model: PRaCY-younger version.
Note: All standardized coefficients shown are significant at $p < 0.05$.
$\chi^2_{(df=82)} = 94.76$, $p = 0.16$; CFI = 0.971; RMSEA = 0.032.

RCMAS scores for the younger cohort: total RCMAS score (0.19, $p < 0.05$), Physiological Anxiety (0.27, $p < 0.001$), and Social Concerns/Concentration (0.21, $p < 0.01$). Those children who report higher perceptions of racism also report heightened levels of anxiety.

Discussion

Our study is among the first to evaluate the development and psychometric properties of a self-report measure of racial discrimination specifically among minority children and adolescents. The results provide evidence that the PRaCY instruments – two 10-item questionnaires appropriate for children aged 8–13 and 14–18 – are valid and reliable age-appropriate, self-report measures of perceptions of racism (PRaCY, available at http://www.pracy-questionnaire.net or from the first author). Confirmatory factor analyses indicate that the items in each instrument comprise a single factor measure of racism with adequate internal consistency. There were no group-specific biases in the item responses in either cohort.

These instruments measure *perceptions* of racism. While there is some debate over the relative strengths of subjective and objective assessments of individual-level racism, most measures of racism and discrimination have relied upon subjective

perceptions (Meyer 2003). Clark and colleagues, in one of the earliest papers that discussed racism as a stressor, highlight the importance of subjective perceptions of racism and discrimination (Clark *et al.* 1999). This model of the effects of racism on health fits within the stress and coping theory developed by Lazarus and Folkman (1984). According to this theory, the consequences of a stressful event depend on an individual recipient's appraisal of the event as being potentially harmful (cognitive appraisal), as well as one's problem- and emotion-focused coping strategies (Folkman *et al.* 1986a, 1986b). For a situation perceived as racist, potential effects depend on the individual's appraisal of a situation as being caused by discrimination based on race or ethnicity, as well as the emotional and coping responses employed. Individuals respond in different ways to similar situations; thus the subjective perception of an experience is the deciding factor for whether a situation will be appraised as stressful, and whether it has potential for negative health effects. Because of this, most researchers have studied racism as a subjective phenomenon, operationalized as 'perceptions of racism.' Our instrument measures self-reported perceptions of racism, and thus is consistent with psychosocial stress theory, as well as with most of the instruments developed to measure racism in adults. In addition to measuring the occurrence of perceived racism, the PRaCY also gathers information regarding the respondent's perceptions of attribution, as well as emotional and coping responses.

As noted in the Introduction, many instruments used in prior studies that measure perceptions of racism in children have been developed and tested on adults or older, college-age students, and may not be developmentally appropriate for younger children. The PRaCY instruments described in this paper were developed and tested on children; ages 8–13 for the younger version and 14–18 for the older. We know of no other valid and reliable instruments which have been developed for children as young as eight years old. For example, the Perceived Racism Scale-Child (PRS-C), one of the few instruments specifically designed for children and youth, was developed for African-American youth aged 10 years and older (Nyborg and Curry 2003). A modified version of the Everyday Discrimination Scale (Forman *et al.* 1997), which was developed for adults, was tested in African-American youth (mean age 15.7 years) and was shown to be valid and reliable in this group (Clark *et al.* 2004). The Adolescent Discrimination Distress Index (Fisher *et al.* 2000) was developed and tested on a multiethnic group of youth aged 13–19 years. The Schedule of Racist Events (SRE) was developed and tested on an African-American sample aged 15–70 (Landrine and Klonoff 1996).

The PRaCY instruments were developed for children as young as eight years of age. Children in middle childhood have typically entered the concrete operational phase of cognitive development, which is characterized by the development of abstract thinking, the ability to perform multiple classification tasks, taking others' perspective, and concrete problem solving. In data collection, we noted that the younger participants asked more clarifying questions, but the eight-year olds' response patterns on the PRaCY (as well on the measures of depression and anxiety) were not significantly different from the 9–10-year olds in our sample. While we feel confident recommending the PRaCY with children as young as eight years old, we recognize that not all children mature at the same rate, and therefore recommend an individualized approach to determining the readiness for a young child to complete the survey. When administering the instrument to younger children, one should take care in explaining

the instructions, allow for additional time for completing the questionnaire, and be available to answer any questions that might arise during the administration.

To our knowledge, ours is the first instrument specific to children that was developed and tested on an ethnically diverse group of minority children including African-American, Latino, West Indian/Caribbean, and multicultural/multiracial youth. Much of the literature on racism and health has been conducted on African-Americans, and most instruments that measure perceptions of racism were specifically developed for and tested on African-American samples.

Another advantage to the PRaCY instruments is that, because of their structure, they can be used by researchers in a number of different ways. For researchers particularly interested in a perceived racism scale, the additive score for the question 'Has this happened to you' for each of the 10 items can be used (score range 0–10). One can also look at differences based on sub-attributions, e.g., racial discrimination based on race, skin color, ethnicity, language, or accent, etc. Furthermore, responses to the Emotional Response and Coping Response sub-questions for each item can provide information to researchers interested in studying individual differences in outcomes based on differences in emotional and coping responses to racism. These dimensions correspond to the two coping functions described by Lazarus and Folkman: emotion-focused and problem-focused coping. Although these 'response to racism' dimensions are included in the PRaCY, they were not included in our formal psychometric evaluation to date, and their use at this time should be restricted to descriptions of possible emotional and coping strategies.

Limitations to our study need to be taken into account. Our study sample of 277 children were from predominantly inner city and low socioeconomic settings, which limits our ability to compare results with children living in different contexts. Racism is an issue that minorities face regardless of socioeconomic and neighborhood context, and these instruments need to be administered and analyzed in different settings. However, the fact that our qualitative interviews (which were used to help create the questionnaire) were conducted with youth from varied social and economic settings allowed us to choose items that were experienced by a diverse group of informants. Nevertheless, there may be differences in perceptions of racism among other racial/ethnic groups not in our sample, for instance, in Asian and Southeast Asian children and adolescents.

Since this study was performed in the USA, the instrument was developed within a specific social context, that is, the minority racial and ethnic environment in the northeastern section of the USA. Researchers working in other counties need to carefully evaluate whether the specific situations used in the items of the PRaCY have relevance for their local context.

While our study demonstrates PRaCY's good construct validity through confirmatory factor analysis and lack of Differential Item Functioning (DIF), validity as estimated by the correlations between the PRaCY and the Children's Depression Inventory (CDI) and the Revised Child Manifest Anxiety Scale (RCMAS) was marginal. In the case of the CDI, the floor effect resulted in the lack of strong association between those scores and the PRaCY results. The RCMAS, however, had better distributions. And while there were significant associations between racism and depressive symptoms, physiological anxiety, and social concerns/concentration for the younger cohort, we did not see this in the older cohort. Cronbach and Meehl (1955) remark that lack of associative construct

validity can be interpreted in at least four ways: (1) the lack of association is indicative of true lack of construct validity; (2) the theoretical relationship used to create the validation test is incorrect; (3) the method to test the hypothesis is incorrect; or (4) the measure of the external construct is unreliable or lacks validity. Further study of the relationship between the PRaCY instruments and measures of variables that have been associated with perceptions of racism is required.

Despite these limitations, the PRaCY is a valid and reliable instrument that measures perceptions of racism in ethnically diverse children between the ages of 8 and 18. The PRaCY can also provide information about the relationship between racism and other forms of discrimination that youth experience. In addition, it can provide information about differences in emotional and coping responses to perceived racism. As such it has potential use for those researchers in clinical medicine, public health, epidemiology, child development, and the social sciences who are interested in racism as a social stressor of children and its deleterious effects on their health and development.

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