Published in final edited form as:

Asian Am J Psychol. 2015 March ; 6(1): 56–65. doi:10.1037/a0036706.

Development and Validation of a Racial Discrimination Measure for Cambodian American Adolescents

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Abstract

To date, the majority of studies examining experiences of racial discrimination among youth use measures initially developed for African American and Latino adults or college students. Few studies have attended to the ways in which discrimination experiences may be unique for Asian American youth, particularly subgroups such as Southeast Asians. The purpose of this study was twofold: (a) to describe the development of a racial discrimination measure using community-based participatory research with Cambodian American adolescents and (b) to psychometrically test the measure with respect to validity and reliability. This research used mixed-methods and comprised 3 phases. Phase 1 consisted of qualitative focus group research to assess community-identified needs. Phase 2 included quantitative survey development with community members and resulted in an 18-item measure assessing the frequency of ethnicity-based discrimination. Phase 3 involved psychometric testing of the measure's validity and reliability ($n = 423$). Exploratory factor analysis procedures yielded a 3-factor structure describing peer, school, and police discrimination from all items, capturing 96% of the combined variance. Using confirmatory factor analysis, the data demonstrated good fit with the 3-factor structure ($CFI = .98$; $RMSEA = .054$), with factor loadings ranging from .59 to .96 and all estimates statistically significant at the $p < .05$ level. Correlational analyses of racial discrimination subfactors and depression supported concurrent validity. In sum, this measure can be used to examine the degree and sources of racial discrimination reported by Cambodian American adolescents and potentially other adolescents of Southeast Asian descent living in diverse urban communities.

Keywords

adolescents; Cambodian Americans; discrimination; instrument development; psychometric testing

A considerable body of literature has identified racism as a key contributor to racial/ethnic disparities in physical and mental health (Paradies, 2006). Although early studies of racism investigated prejudiced attitudes toward racial and ethnic minorities, more recent studies

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The content is solely the responsibility of the authors and does not necessarily represent the official views of the aforementioned funding agencies.

have examined the impact of racist treatment from the perspective of its targets (Krieger, 1999). In particular, a multitude of studies have examined the detrimental health and psychological consequences of *racial discrimination*, defined as differential treatment on the basis of race that disadvantages a racial group (National Research Council, 2004) or behavior based on prejudice and stereotypes (Mio, Nagata, Tsai, & Tewari, 2007). Racial discrimination has been linked to various negative psychological outcomes among diverse adult populations (Finch, Kolody, & Vega, 2000; Gee, Ro, Shariff-Marco, & Chae, 2009; Williams, Neighbors, & Jackson, 2003). Mounting research has investigated these associations among children and adolescents, demonstrating that youths' experiences with racial discrimination are common and can increase the likelihood of adverse psychosocial, health, academic, and behavioral outcomes (Garcia Coll et al., 1996; Tobler et al., 2013).

In light of the growing interest in racial discrimination as a risk to positive development and well-being, research that attends to the ways in which children and adolescents uniquely experience discrimination remains scant. To date, most studies focusing on children and adolescents have applied discrimination measures developed for adults and college students. Few studies have incorporated children and adolescents' own perspectives of racial discrimination in existing measures (Pachter et al., 2010). As a result, there may be limitations in our understanding of the nature and contexts of young people's lived experiences with discrimination (Rosenbloom & Way, 2004). Likewise, various forms of discriminatory treatment, such as race-based derogatory remarks or exclusion, may occur across groups. Yet such incidents can qualitatively differ depending on one's developmental stage, cultural context, and status within the social hierarchy (Brown & Bigler, 2005; Garcia Coll et al., 1996; Gee et al., 2009). Moreover, the majority of studies examining youth outcomes associated with racial discrimination have primarily focused on African American adolescents despite recommendations to develop and empirically test measures of discrimination for different ethnic groups (Pachter & Garcia Coll, 2009).

Studies have increasingly highlighted Asian American adolescents' experiences with discrimination, noting their vulnerability to negative treatment from peers in relation to socioemotional and academic outcomes (Benner & Kim, 2009; Qin, Way, & Mukherjee, 2008; Rivas-Drake, Hughes, & Way, 2008). However, a substantial proportion of this research has focused on youth from East Asian backgrounds (Benner & Kim, 2009; Rivas-Drake et al., 2008). There has been less consideration of discrimination experiences for Asian American adolescents of Southeast Asian descent, the majority of whom are refugees or children of refugees. Many Southeast Asian communities have faced greater constraints to social and economic mobility compared to more established Asian immigrant communities in the United States (Chung & Bemak, 2007; Ngo & Lee, 2007; U.S. Census Bureau, 2011). A number of studies have called attention to the escalated risk of negative academic and behavioral outcomes for Southeast Asian youth (Chong et al., 2009; Ngo & Lee, 2007) as well as the pervasive stereotypes as school dropouts and gangsters with which many Southeast Asian youth contend (Chhuon, 2013; Ngo, 2009; Ngo & Lee, 2007). Considering the prevalence of premigration trauma and resettlement stressors related to adjustment for Southeast Asian communities as well as the unique challenges facing Southeast Asian youth (Chan, 2004; Chhuon, 2013; Chong et al., 2009), it is possible that

Southeast Asian adolescents may be targets of discrimination for additional reasons related to refugee-status, poverty, and class.

This study used a community-based participatory research (CBPR) framework to examine the nature of racial discrimination for urban Cambodian American adolescents in Southern California. A CBPR approach engages community members as coinvestigators in the scientific research process to access vulnerable populations and build greater community capacity to address issues of health and well-being (Minkler, 2004). To enhance our understanding and measurement of discrimination for a population of Southeast Asian adolescents, the current study aimed to (a) describe the development of a racial discrimination measure using a participatory mixed-methods approach with Cambodian American adolescents, and (b) psychometrically assess the racial discrimination measure with regards to validity and reliability.

Discrimination Among Adolescents

The ecological systems framework is useful for understanding how racial discrimination influences well-being at multiple levels. From an ecological perspective, an individual is nested within familial, community, and broader cultural and social systems that simultaneously interact to influence human development and experience (Bronfenbrenner, 1994). For racial and ethnic minority youth, these systems are shaped by social inequities—namely, through mechanisms such as racial discrimination, prejudice, and oppression—that impart differential access to resources and opportunities, and can present challenges to social and emotional development (Garcia Coll et al., 1996). For example, segregated residential and institutional environments shape cultural and proximal contexts, such as neighborhoods, schools, and the family; these settings frame direct influences on young people's social and emotional well-being.

Similarly, scholars have noted that racial discrimination occurs in various forms and social contexts for adolescents (Gee et al., 2009). For instance, racial discrimination can range from blatant acts of victimization to more subtle indignities and insults in the form of microaggressions (Huynh, 2012; Sue et al., 2007; Yoo, Steger, & Lee, 2010). Likewise, racial discrimination can occur in multiple domains and from different sources, such as harassment from peers, negative treatment from teachers at school, or hostility from police authorities within the community (Brown & Bigler, 2005; Fisher, Wallace, & Fenton, 2000; Rosenbloom & Way, 2004). Despite the experience of racial discrimination occurring across racial/ethnic groups, there may be differences in how discrimination is experienced by specific ethnic groups (Hwang & Goto, 2009). Understanding forms and sources of discrimination are important for identifying potential targets of intervention within particular ecological contexts. Accordingly, this study examines discrimination experiences across multiple contexts for Cambodian American adolescents.

A growing body of evidence suggests that Asian American adolescents experience greater peer discrimination than other racial/ethnic groups. Peer discrimination often occurs in forms of physical or verbal violence that manifest as racially charged taunts, slurs, and other forms of harassment. For example, Fisher et al. (2000) found that students of South and East

Asian descent experienced significantly greater peer discrimination than African American and Hispanic adolescents. Rosenbloom and Way's (2004) qualitative research suggested that Asian American youth experience frequent verbal and physical harassment by their non-Asian peers, in contrast to African American and Latino youth who described greater hostility and lower academic expectations from teachers and school authorities. Greene, Way, and Pahl (2006) found that Asian American (primarily Chinese American) adolescents reported more peer discrimination than their Puerto Rican and Black adolescent peers over a 4-year period, which was associated with depressive symptoms and lower self-esteem over time.

Existing research suggests that peer discrimination for Asian American youth can be attributed to factors that include stereotypes as model minority students, immigrant status, language differences, and smaller physical size (Niwa, Way, Qin, & Okazaki, 2011; Qin et al., 2008). For example, the typecasting of Asian American students as model minorities who are favored by teachers may generate resentment and animosity from non-Asian peers (Rosenbloom & Way, 2004). Among out-group and in-group peers alike, negative treatment based on immigrant status, language and accent, or perceptions as a foreigner contribute to the "othering" of some Asian American youth (Armenta et al., 2013; French, Tran, & Ruben Chavez, 2013; Pyke & Dang, 2003). A notable limitation of extant studies, however (with the exception of Fisher et al., 2000), is the primary focus on adolescents of East Asian descent. As such, a paucity of research has attended to the forms and contexts of discrimination among other Asian ethnic populations.

Measuring Discrimination Among Adolescents

Few studies use discrimination measures that have been psychometrically assessed to be valid specifically for child and adolescent populations (Pachter et al., 2010). However, two exceptions stand out in the literature: the Adolescent Discrimination Distress Index (ADDI; Fisher et al., 2000) and the Perceptions of Racism in Children and Youth (PRaCY; Pachter et al., 2010). The ADDI was among the first measures of discrimination developed specifically for youth and adolescents. It assesses perceived discrimination-related distress in institutional, educational, and peer contexts, addressing the multiple settings in which adolescents encounter discrimination (Fisher et al., 2000). The PRaCY goes beyond the assessment of perceived discrimination in the ADDI by including follow-up items regarding attributions to discriminatory experiences, subjective emotional reactions, and the coping strategies for dealing with discriminatory experiences (Pachter et al., 2010). Despite the significant contribution of these measures to our understanding of discrimination among children and adolescents, these measures have not been rigorously assessed for their validity and reliability within Asian American youth populations. Furthermore, the initial construction of the ADDI was based on experiences of the researchers and adapted from a measure of discrimination for African American adults (Fisher et al., 2000), whereas the PRaCY was based on qualitative research with predominantly African American and Latino youth. Because what we know about adolescents' experiences with racial discrimination has been based on evidence drawn from African American and Latino youth samples, it is unclear whether such measures are valid and reliable across other populations, such as Asian American youth. As a result, current measures of racial discrimination may not be sensitive

enough to capture the complex ways in which other diverse groups of young people encounter and experience racial discrimination.

A number of measures have been developed to capture discrimination distress among Asian American adult populations. Loo and colleagues (2001) first developed a measure of race-related stressors specific to Asian American Vietnam veterans. Liang and colleagues (2004) created a comprehensive inventory of sociohistorical and interpersonal racism-related stress. Yoo and colleague's (2010) scale taps into subtle and blatant forms of racism that Asian Americans experience. More recently, Armenta and colleagues (2013) validated a Foreign Objectification Scale among college-aged Asian Americans and Latinos. These instruments have served as valuable tools for assessing discrimination that involves assumptions about one's immigration status (as a foreigner), negative representations of Asians in popular media, and tacit assumptions about Asians' ability in math and science (Armenta et al., 2013; Liang et al., 2004; Yoo et al., 2010). However, in light of their contributions, these measures were developed and tested with Asian American adult samples and college students, thereby questioning their applicability to youth and adolescents, particularly those living in ethnically diverse urban areas.

There are several reasons for focusing on discrimination experiences among Cambodian American adolescents. Cambodian American adolescents may be targets of racial discrimination based on race/ethnicity as well as refugee-status and class. Historically, Cambodian refugees that comprised the largest wave of migration following the demise of the Khmer Rouge generally came from rural settings, lacked formal education, and experienced multiple traumas during the Khmer Rouge genocide and resettlement in refugee camps; thus, they were largely ill-equipped and unprepared for adjustment to life in the United States (Chan, 2004). In turn, Cambodian Americans may encounter hostility based on stereotypical perceptions regarding dependence on welfare and government services or competition for jobs (Chung & Bemak, 2007). In addition, many Cambodian American adolescents and their families live in economically depressed neighborhoods vulnerable to community violence (Berthold, 1999; Chan, 2004). Accordingly, research has noted the ways in which Cambodian American and other Southeast Asian adolescents are stereotyped as gang members and school dropouts (Chhuon, 2013; Ngo & Lee, 2007). Similarly, as is the case with African American and Latino adolescents living in urban areas, authority figures who perceive youth as gang-affiliated may increase surveillance and disciplinary action toward them (Rosenbloom & Way, 2004). Although captured in qualitative studies, discriminatory experiences of this nature have not been assessed quantitatively with large community samples (Chong et al., 2009). Thus, given the complexity of Cambodian American adolescents' experiences with racial discrimination, additional research that describes developmentally appropriate, psychometrically tested instruments with this population is warranted.

Community-Based Participatory Research: An Approach for Capturing Emic Perspectives of Adolescent Discrimination

CBPR is an approach to the research process based on principles of equity between academic and community partners, with the goal of using research findings to inform

community change and address health disparities (Minkler, 2004). CBPR can overcome practical challenges to traditional research approaches with hard-to-reach populations by enhancing access and generalizability of research findings to target populations (Wallerstein & Duran, 2010). Moreover, CBPR serves as a means of developing the community's capacity to engage in systematic research to inform best practices and community advocacy efforts, increasing the potential for translational applications of health and mental health research (Viswanathan et al., 2004).

In this study, the use of CBPR permitted exploration of emic, or group-based, perspectives of Cambodian Americans adolescents, a population for which relatively little empirical evidence exists (Hwang & Goto, 2009). Drawing from the emic perspectives of youth themselves extends the growing body of research on the development of culturally and developmentally appropriate measures of discrimination for understudied populations.

Method

Study and Community Context

The larger study from which the data is drawn was the product of a collaboration of academic partners at the University of California, Los Angeles (UCLA) and Khmer Girls in Action (KGA), a nonprofit organization in Southern California dedicated to empowering young Southeast Asian adolescents through leadership training, social and academic support, and community organizing. KGA was actively involved throughout the life of the study, including the conception of the research study aims and design, data collection and analysis, and dissemination of preliminary descriptive findings. Additional details of the process are available elsewhere (Sangalang, Ngouy, & Lau, under review). CBPR was deemed appropriate for this study to explore the needs of Cambodian American adolescents within the local social and cultural context.

The community under study is part of a large and geographically concentrated population of Cambodians Americans (Chan, 2004; U.S. Census Bureau, 2011). The inner-city area in which this Cambodian enclave is situated is also home to other ethnically diverse communities, with large numbers of Asians and Pacific Islanders, Latinos, and African Americans (Chan, 2004; U.S. Census Bureau, 2011). This community is perhaps unique in its cultural diversity and long history of immigrant settlement. However, its social and economic challenges parallel those of other impoverished communities (Chan, 2004).

Procedures

Aligned with a CBPR framework, youth and adult community members participated in the development and distribution of the survey. The study used mixed-methods and comprised three primary phases—qualitative focus group research in Phase 1, quantitative survey development in Phase 2, and psychometric testing of the measure's validity and reliability in Phase 3. All phases of research were approved by the university institutional review board.

Phase 1: Qualitative analysis—We began with focus groups to elicit emic perspectives regarding needs pertinent to Cambodian American adolescents in the community (Wallerstein & Duran, 2010). Both academic and community partners were interested in

exploring themes regarding identity, family, school experiences, and community dynamics. To be eligible, focus group participants needed to be English proficient, between the ages of 13 and 18, and have at least one parent of Cambodian descent. We used convenience and snowball sampling techniques to recruit participants by distributing flyers in local organizations and high schools. Interested youth called or e-mailed one of the academic investigators to express interest in the study; the academic investigator subsequently furnished and collected youth assent/consent and parental consent forms. Two academic investigators, a university professor and graduate research assistant trained in focus group research, facilitated five same-gender focus groups that took place at the offices of two youth-serving organizations. Each focus group contained six to nine participants aged 14 to 18 (24 females and 16 males total). All focus data was recorded and transcribed for subsequent analysis.

The academic partners transcribed and analyzed the focus group data, and then presented focus group themes to community partners (Elo & Kyngäs, 2008). Content analysis was used to guide the focus group data analysis in the following steps: (a) determining criteria for meaning/codeable units; (b) coding, or applying labels to meaning units; (c) and creating categories and themes (Graneheim & Lundman, 2004). Broader thematic results highlighted the salience of family and parental relationships, premigration trauma and postmigration adjustment among refugee parents, and experiences growing up in the community. These themes were refined further and prioritized by both the community and academic partners, which served as the basis for the development of the survey measure. Within the subtheme related to growing up in the community, experiences of discrimination consistently emerged across all focus groups.

Phase 2: Quantitative survey instrument development—A separate advisory group of 20 Cambodian American adolescents aged 15 to 17 developed survey items based on themes expressed in the focus groups through a series of workshops that took place over four months. Two adult community members facilitated this process with adolescents by adapting focus group data into an activity. In the activity, community facilitators wrote broad focus group themes onto banners posted for youth to see visually and printed separately exemplary codeable units (i.e., quotes derived from transcripts) for youth to place under theme banners. Adolescent participants had opportunities to discuss their classification of data as well as the researchers' classifications of codeable units, after which youth were able to describe in their own words how categories should be named. Adult community facilitators assigned youth into groups to brainstorm potential survey items based on identified categories; these groups rotated to allow for youth to contribute questions to other categories. Both adult and youth community members evaluated questions at the end of each session.

The academic partners reviewed community-generated items alongside items from existing measures of perceived discrimination. Through collaborative discussions, the academic and community partners modified questions and response categories, retaining most of the original wording of community-driven questions to maintain a CBPR approach throughout. This process resulted in an 18-item measure addressing possible discrimination experiences related to peers, school, and police authority figures. All items related to peer and police

discrimination were formulated from youth community members. School discrimination items were adapted from existing research measures, including three items from Finch et al.'s (2000) perceived discrimination scale and four items adapted from Fisher and colleagues' (2000) discrimination distress index. Adult community members and academic partners deemed this appropriate to explore school-based discrimination. Each of the 18 items assessed the frequency of unfair treatment in the past year attributed to being Cambodian; responses ranged from 1 (*never*) to 5 (*always*), with higher scores indicating more frequent discriminatory encounters.

Phase 3: Psychometric testing of survey measure—Survey participants included 475 self-identified Cambodian American adolescents between the ages of 13 and 19. Eligible participants were English-language proficient and had a least one parent or guardian of Cambodian descent. The university researchers gave presentations at two high schools and three youth-serving community organizations to invite eligible participants. These schools and organizations were identified by community leaders as having high-concentrations of Cambodian American youth (e.g., an estimate of 30% Asian American students, including Cambodian, for one school). Cambodian teachers who taught Khmer language classes or sponsored clubs also facilitated access to schools. Aligned with the CBPR framework to involve community members, a group of 40 trained youth researchers disseminated study packets containing an information sheet, survey, raffle ticket, instructions about inclusion criteria, and instructions for completing and returning the survey and raffle ticket. Each study participant that returned a survey was entered in a raffle to win a laptop computer.

Approximately 11% of the sample ($n = 52$) had missing values on the discrimination items; however, there were no significant differences in age and gender across missing and nonmissing values. The resulting analytic sample ($n = 423$) to examine measure validity and reliability was approximately evenly split by gender (54% female). Most (75%) of the respondents ranged from age 15 to 17 years, and they were overwhelmingly U.S. born (96%). The following section describes the psychometric testing of the measure.

Results

Validity

Exploratory factor analysis—We first conducted an exploratory factor analysis (EFA) to examine the underlying latent factor structure among the 18 items (see Table 1). We chose to conduct principal axis factoring with oblimin oblique rotation based on best practices with items that are moderately or highly correlated, positing that experiencing one form of discrimination would be related to experiencing other forms of discrimination (Costello & Osborne, 2005). We retained factor estimates with eigenvalues greater than 1.0 (Kaiser criterion) and factor estimate loadings greater than .40; a visual examination of a scree plot followed these steps to ease interpretation of the number of factors (Costello & Osborne, 2005). Based on these procedures, three factors emerged for all 18 items: six items comprised police discrimination (42% of the variance), seven items captured school

discrimination (29% of the variance), and five items consisted of peer discrimination (25% of the variance).

Confirmatory factor analysis—To verify the three-factor structure derived in the EFA, we conducted a confirmatory factor analysis (CFA) using structural equation modeling with full-information maximum likelihood estimation (Enders & Bandalos, 2001). We assessed model fit with the Comparative Fit Index (CFI) and the root mean square error of approximation (RMSEA). We followed an initial estimation with the entire sample. We also randomly divided the data to create test and verification samples for cross-validation with subsample analyses. All analyses were conducted in Stata 12 (StataCorp, 2011).

Figure 1 describes estimates from a confirmatory factor analysis with the entire sample. The model with correlated latent factors displayed reasonable fit (CFI = .98; RMSEA = .054) with factor loadings ranging from .58 to .96 and all estimates statistically significant at the $p < .05$ level (Hu & Bentler, 1999). In addition to examining a model with correlated latent factors, we examined the fit of an alternative with each latent factor as indicators of an overall racial discrimination construct. We used the Akaike information criterion (AIC) to assess which model best fit the data (Hooper, Coughlan, & Muller, 2008). Both the aforementioned first-order structure model with correlated latent factors and the second-order model (CFI = .97; RMSEA = .054) with the overall construct of discrimination demonstrated acceptable fit with the data. The first-order construct exhibited slightly greater fit with the data (AIC = 16537.73) compared to the second-order structure (AIC = 16534.89).

Concurrent validity—Given the well-established relationship between racial discrimination and depression in the literature (Tobler et al., 2013), we also examined the correlation between Cambodian American adolescents' depressive symptoms score measured by CES-D Short Depression Scales (CES-D 10; Radloff, 1977; Andresen et al., 1994) and the discrimination measures. Table 2 provides information on the intercorrelations of the study variables. Significant correlations ($p < .001$) between these depression and the discrimination measures indicated concurrent validity. Specifically, correlational results of depression with racial discrimination ($r = .28$) and its subfactors [peer discrimination ($r = .35$), school discrimination ($r = .35$), and police discrimination ($r = .28$)] are considered moderate (Cohen, 1988) and are similar in magnitude to correlations of other discrimination scales and depression (Grossman & Liang, 2008; Huynh, 2012).

Reliability—Table 2 also describes the mean, standard deviations, and alpha coefficients for the total racial discrimination scale and three subscales (peer, school, police). The mean scores across the racial discrimination scales ranged from 1.37 to 1.85, which mirror results from other studies with adolescent populations (Benner & Kim, 2009; Greene et al., 2006). Internal consistency (Cronbach's alpha) was used to assess reliability of the scale. In addition to the total scale ($\alpha = .91$), each subscale demonstrated high internal reliability [peer discrimination ($\alpha = .90$); school discrimination ($\alpha = .87$); police discrimination ($\alpha = .94$)].

Discussion

The purpose of the current study was twofold: to describe the development of a racial discrimination measure using CBPR with Cambodian American adolescents and to psychometrically assess the measure's validity and reliability. The findings indicate that the measure is a reliable and valid tool for assessing racial discrimination among Cambodian American adolescents. Specifically, the results of the psychometric analysis revealed a 3-factor structure reflecting racial discrimination with peers, in school, and with police in the community. These findings are consistent with previous studies that recognize the multidimensional nature of racial discrimination for adolescents that occurs in different contexts and is perpetrated by peer and adults sources (Fisher et al., 2000; Huynh & Fuligni, 2012). With discrimination's well-established link to negative psychological and health outcomes, adolescents' exposure to different forms of discrimination may have implications for future interventions for reducing or coping with discrimination in various settings, such as enhancing familial socialization and preparation for ethnic bias practices (Hughes et al., 2006), and developing programs that help students develop healthy relationships to leverage social support (Stein, Gonzalez, & Huq, 2012).

We examined the 3-factor structure as subscales within a first-order structure as well as within a second-order structure as indicators of overall discrimination. The findings indicated that the subscales could be used independently to assess various forms of discrimination as well as an overall measure of discrimination. Similarly, previous studies have used first- and second-order scales to describe constructs such as internalized racism and its constituent subfactors (i.e., difficulties with English language communication, expected academic success; Shen, Wang, & Swanson, 2011).

In addition, the racial discrimination measure was significantly correlated with depression, providing preliminary evidence for concurrent validity. This is consistent with the multitude of studies that have lent support for a relationship between discrimination and negative health and psychological outcomes (Paradies, 2006). Additional research is needed to further substantiate the validity of the measure in other Southeast Asian groups.

The findings contribute to the literature in various ways. This study is among the first to describe the development and psychometric assessment of a measure of racial discrimination based on the experiences of Asian American adolescents, specifically adolescents of Cambodian descent. Although research has shown that Asian American adolescents who experience discrimination are at greater risk of negative emotional and behavioral outcomes (Benner & Kim, 2009; Greene et al., 2006), few studies have included Southeast Asian groups such as Cambodian American adolescents. Research has shown that Cambodian American adolescents are at risk of outcomes such as low educational attainment and problem behaviors (Go & Le, 2005; Ngo & Lee, 2007), yet no studies to date have examined discrimination as correlates of such outcomes. This is significant in light of the unique ways that Cambodian American adolescents often experience dual, contradictory forms of discrimination, ranging from "positive" model minority expectations to negative perceptions as gang members and low-achieving students. Such contradictory stereotypes are often placed on Asian American youth living in urban communities (Ngo & Lee, 2007).

Another noteworthy aspect of this study was the use of CBPR to derive local perspectives regarding experiences of racial discrimination. Although many aspects of this measure are consonant with existing measures of adolescent discrimination, it is particularly unique in its inclusion of multiple items related to police-related discrimination. Studies have examined perceptions of racial profiling among African American and Latino youth, yet fewer studies have examined police discrimination with Asian American youth (Brunson, 2007; Rosenbloom & Way, 2004). Moreover, although qualitative studies have captured Southeast Asian adolescents' perceptions of negative interactions with police (Chong et al., 2009), quantitative investigations that draw from larger community samples are rare. Scholars have noted that urban youth of color who live in high-crime, inner-city neighborhoods have increased chances of exposure to and negative experiences with police (Simons et al., 2002). This study calls attention to the ways that police discrimination is particularly relevant among Cambodian American adolescents in urban contexts.

We acknowledge a number of limitations. First, the focus on Cambodian American adolescents in Southern California limited analysis of between-groups and within-group differences. Because of limited variability in nativity status (96% were U.S. born), we could not examine differences between immigrant versus U.S.-born Cambodian American adolescents. Future studies should sample Asian American adolescents of other diverse backgrounds (e.g., ethnicity, immigrant status) to assess the stability of the measure. Studies of the applicability of the discrimination measure to Cambodian American communities living outside the major immigrant gateway of California are also merited to verify the generalizability and salience of the three discrimination arenas comprised by the measure.

Second, the findings of the current study may be limited in its assessment of Cambodian American adolescents' self-reported perceptions of racial discrimination. Scholars have commented on the challenges associated with the accurate reporting of perceived discrimination because of perceptual biases, problems with recall, and stigma associated with and disclosure of discriminatory events (Kaiser & Major, 2006). However, if understood within a framework of subjective stress and coping, perceived stressors such as discrimination, in light of the individual's appraisal of the situation as well as existing coping tools, can have deleterious psychological consequences (Pachter et al., 2010; Lazarus & Folkman, 1984). Thus, self-reported perceived racial discrimination may have direct impact on psychological adjustment and well-being.

Third, the wording of the school discrimination items may benefit from additional clarification with regards to the source of discriminatory treatment. Although the measures of peer and police discrimination identify the perpetrator of the discriminatory acts, the measure of school discrimination does not specify a particular source. For items related to the school context, the source of discriminatory treatment implies teachers, administrators, or other school personnel; however, other items that refer to negative treatment from people generally could also refer to peers or other youth (e.g., students from other classes or grade levels). Although our EFA and CFA analyses indicated distinct subfactors, future research should include more specific wording about teachers or other school personnel in measures of school discrimination.

Despite these limitations, this discrimination measure is valid and reliable for assessing racial discrimination among Cambodian American adolescents and potentially other groups that live in multicultural, urban communities. In particular, the study underscores the salience of police discrimination in the lived experiences of urban-dwelling Cambodian American adolescents. These findings are particularly relevant in light of greater attention to negative treatment by police (Brunson, 2007; Chong et al., 2009; Simons et al., 2002).

In sum, we discussed the use of CBPR to develop a culturally sensitive measure to assess multiple forms of racial discrimination in Cambodian American adolescents. The findings from psychometric testing suggested adequate validity and reliability of the measure. Researchers, educators, and clinicians in health and social science arenas may apply this measure to examine the degree and sources of racial discrimination perceived by Cambodian American youth and its adverse influences on their health. Understanding the forms and contexts in which racial discrimination occurs for adolescents of different ethnic minority populations can help identify youth at risk of negative outcomes and aid in the development of interventions at multiple levels. Public Health interventions aimed to cultivate awareness and encourage resilience in light of racial discrimination could benefit adolescents at the individual level and further shape the broader school and community contexts that support their development and well-being.

Acknowledgments

We express deep appreciation to past and present staff of Khmer Girls in Action and participating youth for their long-term collaboration with the project. The data for this study were collected with support from the Center for Community Partnerships at the University of California, Los Angeles (S. Ngouy & A. Lau, P.I.; Cindy C. Sangalang, Co-P.I.) and funding to the first author from the Council on Social Work Education Minority Fellowship Program. Data analysis and manuscript development were supported by training funds from the National Institute on Minority Health and Health Disparities of the National Institutes of Health (NIMHD/NIH), Award P20 MD002316 (F. Marsiglia, P.I.).

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Figure 1.

Confirmatory factor analysis model of racial discrimination measure items. All standardized coefficients are significant at the $p < .05$ level. Comparative Fit Index = .98; root mean square error of approximation = .054.

Table 1**Racial Discrimination Items, Factor Structure, and Descriptive Statistics**

Discrimination item	Factor loadings			M	SD	
	Factor 1	Factor 2	Factor 3			
How often did you experience the following from peers?						
Teasing	0.18	0.27	0.72	1.78	1.03	
Isolation/Exclusion	0.27	0.24	0.71	1.84	0.91	
Name calling/Racial slurs and comments	0.18	0.25	0.75	1.79	1.09	
Threats	0.32	0.22	0.75	1.84	0.90	
Physical abuse/Violence	0.34	0.23	0.68	1.59	0.88	
How often did you experience the following at school?						
People assumed your English was poor ^a	0.13	0.56	0.12	1.78	0.98	
People didn't like you ^b	0.21	0.76	0.24	1.84	0.95	
People treated you unfairly ^b	0.13	0.82	0.22	1.79	0.92	
People treated your friends unfairly ^b	0.18	0.79	0.21	1.84	0.92	
You were wrongly disciplined (i.e., detention, suspension) ^a	0.26	0.61	0.20	1.59	0.92	
You were given a lower grade than you deserved ^a	0.23	0.51	0.16	1.56	0.93	
People expected more of you than others your age ^a	0.06	0.50	0.19	2.25	1.28	
How often did you experience the following from the police?						
Stopped	0.88	0.07	0.14	1.48	1.48	
Harassed	0.90	0.09	0.09	1.35	1.35	
Pulled over	0.87	0.08	0.10	1.49	1.48	
Arrested	0.87	0.10	0.09	1.23	1.23	
Taken to the police station	0.87	0.13	0.07	1.22	1.22	
Hurt physically	0.76	0.07	0.22	1.21	1.21	

Note. Based on focus group data from Phase 1, all items were generated in Phase 2 and tested in Phase 3 of the study. Factor estimate loadings above .40 are in bold.

^a Adapted from Fisher et al. 2000.

^b Adapted from Finch et al. 2000.

Table 2**Intercorrelations and Reliability**

	1	2	3	4	5	M	SD	α
1. Depression	—					10.19	1.69	0.79
2. Racial discrimination	0.28	—				1.60	0.58	0.91
3. Peer discrimination	0.35	0.79	—			1.69	0.85	0.90
4. School discrimination	0.35	0.83	0.53	—		1.85	0.77	0.87
5. Police discrimination	0.28	0.71	0.36	0.33	—	1.38	0.78	0.94

Note. All correlations are significant at the .001 p value. Peer, school, and police discrimination are subscales of the broader racial discrimination scale.