

Racial Discrimination Experiences Among Black Youth: A Person-Centered Approach

Journal of Black Psychology
1–20

© The Author(s) 2015

Reprints and permissions:
sagepub.com/journalsPermissions.nav

DOI: 10.1177/0095798415573315

jbp.sagepub.com



Shardé McNeil Smith¹ and Frank Fincham²

Abstract

This study examines whether subgroups of Black youth exist based on the presence or absence of racial discrimination experiences in the school context and whether these groups varied by gender and household income. Latent transition analyses were performed on racial discrimination indicators derived when youth were in the 8th and 11th grades. Three distinct subgroups of youth emerged. Youth in the Teacher-Peer Perceived Racial Discrimination (PRD) group had a high probability of experiencing racial discrimination from both teachers and peers. Those in the Teacher PRD group had high probabilities of experiencing racial discrimination from teachers and a low probability of experiencing racial discrimination from their peers. Finally, youth in the No PRD group had low probabilities across all racial discrimination indicators. Males were more likely to be in the Teacher-Peer and Teacher PRD groups compared with females. Findings demonstrate the heterogeneity of Black youth's experiences as it relates to race-related stress and several avenues for future research are identified.

Keywords

adolescents, racial discrimination, latent transition analysis (LTA), gender, Black

¹University of Illinois at Urbana-Champaign, Urbana, IL, USA

²Florida State University, Tallahassee, FL, USA

Corresponding Author:

Shardé McNeil Smith, Department of African American Studies, University of Illinois at Urbana-Champaign, 1201 West Nevada Street, Urbana, IL 61801, USA.

Email: snsmith@illinois.edu

Racism is a complex phenomenon stemming from a history of oppression that continues within various facets of today's society (Clark, Anderson, Clark, & Williams, 1999). Specifically, racial and ethnic disparities in health determinants and associated consequences, such as a disproportionate exposure to stress, unequal access to health care, and fewer resources in segregated communities among racial and ethnic minorities, are all manifestations of racism in today's society (Garcia Coll & Szalacha, 2004; Jones, 2000; Stewart, Baumer, Brunson, & Simons, 2009). Racial discrimination and other race-related stressors are considered to be the mechanisms that create and maintain these disparities occurring within and between racial groups (Clark et al., 1999; Eccles, Wong, & Peck, 2006; Jones, 2000).

Though the negative effects of racial discrimination have been well documented, less is known about the variability in Black youth experiences over time. Many Black youth report experiencing racial discrimination at some point in their life. Approximately 87% to 94% of this population report at least one discriminatory event in the past year (Brody et al., 2006; Seaton, Caldwell, Sellers, & Jackson, 2008; Sellers, Copeland-Linder, Martin, & Lewis, 2006). Even more troubling is that as early as 10 years of age, Black children report being victims of racial discrimination including hearing racial insults and being disrespected in stores, and such experiences have been shown to increase significantly over time (Martin et al., 2011). As youth develop, they have increasingly more interactions with others in their micro-system, and therefore are at greater risk of witnessing and being recipients of racial discrimination in various environmental contexts (Fisher, Wallace, & Fenton, 2000; Garcia Coll & Szalacha, 2004). For instance, youth are vulnerable to racial discrimination from their peers, their community, and their school (Benner & Graham, 2013; Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn, 2008) and collectively these experiences help shape youth's identity and how they subsequently interact with others (Wong, Eccles, & Sameroff, 2003).

Discriminatory incidents originating from various sources may influence some individuals and not others, and do not all lead to the same types of outcomes. For instance, Fisher et al. (2000) found that Black and Hispanic youth reported more discriminatory incidents within stores and with police than their Asian American counterparts; however, Black youth reported significantly less peer discrimination than their Hispanic and Asian American counterparts. Furthermore, Greene, Way, and Pahl (2006) found that discrimination from peers was associated with both self-esteem and depression, whereas, youth's perception of discrimination by adults was only linked to changes in self-esteem in a sample of Black adolescents.

In essence, there is considerable variability in youth's experiences with racial discrimination (Fisher et al., 2000) but little understanding if these variable experiences of discrimination change over time. Specifically, we know that interactions with peer groups and schools influence child development (Bronfenbrenner, 1986; Phelan, Yu, & Davidson, 1994), but we know less about how experiences of racial discrimination stemming from these entities culminate to create subgroups of youth that may differ across a host of outcomes. Given the negative effects of racial discrimination across the life span, understanding subgroups of youth characterized by their racial discrimination experiences is important to comprehend who is at risk for poor outcomes. When Black youth are treated as a monolithic group it prevents targeted prevention and intervention efforts for at-risk groups within an underserved population. Therefore, the objective of this study was to examine whether there are subgroups of Black youth that can be characterized by their experiences of racial discrimination in the school context. Furthermore, we examined whether these subgroups were differentiated by their gender and socioeconomic status as a means to assess if these groups are theoretically meaningful.

Conceptual Framework

The integrative model for the study of developmental competencies in minority children (Garcia Coll et al., 1996) points to variability among Black youth's experiences. This cultural-ecological model focuses on the intersection of social class, culture, ethnicity, and race when conceptualizing the development of minority children. It is influenced by social stratification theory (Laumann, 1970) and holds the position that sociocultural mechanisms such as discrimination, oppression, and segregation are at the core of the developmental process for minority youth. Social position factors, defined as "attributes of individuals that societies use to stratify or place individuals in the social hierarchy and that pertain to children of color" (Garcia Coll et al., 1996, p. 1895) are posited as the primary factors that influence other processes in youth's environment. Such social position factors include race, social class, ethnicity, and gender. These factors are said to influence both race-related stressors (e.g., discrimination and oppression) and segregation (e.g., residential and economic conditions) and the interplay of these factors affect youth's developmental processes (Garcia Coll et al., 1996).

Youth who are susceptible to contextual challenges due to their race are a vulnerable, yet heterogeneous, population in the United States. This cultural-ecological model offers insight into the role of racial discrimination in youth's lives and has been used to guide previous work that examined racial discrimination among youth (e.g., Riina & McHale, 2012; Rivas-Drake, Hughes, &

Way, 2009). The current study reflects its basic premise by conceptualizing racial discrimination experiences as a central component of Black youth's experience and by recognizing the complexity as well as the variability of youth's experiences.

Current Study

The purpose of this study was to examine experiences of racial discrimination stemming from youth's peers and teachers when youth were in the 7th and 11th grade. A latent transition analysis (LTA) was used to examine potential subgroups of Black youth based on similar patterns of these experiences. LTA is a type of autoregressive model that describes the probability of belonging to, and transitioning from, a homogenous subgroup across time. It is optimal to use when the goal is to understand how particular factors coalesce to create groups with similar experiences over time. The derived subgroups are not directly observed (i.e., they are latent), but are created through the use of observed indicators measured at each time point.

Gender and household income were examined as covariates in the analyses. Gender and socioeconomic status are related to racial discrimination experiences. Specifically, Black males have significantly more racial discrimination experiences (e.g., Brodish et al., 2011; Chavous et al., 2008) than their female counterparts. In addition, socioeconomic indicators are associated with racial discrimination experiences, such that youth with higher SES report experiencing more racial discrimination (Brody et al., 2006; Chavous et al., 2008).

It was hypothesized that there would be at least three distinct profiles of youth: a profile of youth with a high probability of experiencing racial discrimination, a profile of youth with a low probability of experiencing racial discrimination, and a profile of youth who report variation of racial discrimination experiences from their school context. Though this study was exploratory, support for positing the emergence of these groups was based on previous research findings that show that though the majority of youth reported experiencing racial discrimination, there is a subgroup of those that do not report such experiences (e.g., Pachter, Bernstein, Szalacha, & Garcia Coll, 2010; Rosenbloom & Way, 2004). In addition, among those who do experience racial discrimination, this study examined whether variability exists within this population.

Method

Data Source

Data used for this study were from the Maryland Adolescent Development in Context Study (Eccles, 1997), a longitudinal study designed to capture the

influences of social context on the psychosocial determinants of academic, behavioral, and health outcomes among youth transitioning from middle adolescence into emerging adulthood. The sample was from the Eastern seaboard of the United States and was socioeconomically diverse with the average family reporting a mean pretax income of \$45,000 to 49,000 (range \$5,000-75,000) in 1990. Data from the original study were collected from adolescents, parents (both primary and secondary caregivers), older siblings, school records, and the 1990 census data banks and began in Fall 1991 while youth were in middle school (seventh grade). Within the sample of 1,482 families of adolescents (51% male) at Wave 1, most were Black (61%), making it one of the first longitudinal studies in the United States that focused on normative development for this population.

Sample and Procedure

In the fall of 1991, a total of 1,700 adolescents from select schools in Prince George County, Maryland and their families were contacted to participate in the study. Letters were sent home to the seventh graders asking for parents' permission for the youth (target child), parent, and older sibling (if applicable) to participate in the study. Of those initially contacted, 1,482 families participated in the study in Wave 1. Wave 3 was collected in 1993 during the youth's 8th-grade year ($N = 1,060$ families) and Wave 4 ($n = 1,057$) was collected during the youth's 11th-grade year. Youth participants completed a 50-minute face-to-face interview and a 30-minute self-administered questionnaire at each wave. Participants included in the current study were selected from all youth who self-identified as Black/African American and participated in either or both Wave 3 and Wave 4. A total of 711 Black youth (51% male) were included in the present study.

Measures

Racial Discrimination Indicators. The following racial discrimination items from the School Discrimination Scale (Eccles et al., 2006; Wong et al., 2003) developed by the Maryland Adolescent Development in Context Study investigators and measured when youth were in 8th and 11th grade (Waves 3 and 4), were used as indicators in the LTAs.

Perceived racial discrimination from teachers. In Waves 3 and 4, youth were asked in the self-administered questionnaire four questions regarding unfair treatment from their teacher due to their race. The following questions were asked using the stem, "At school, how often do you feel" (1) *that teachers*

call on you less often than they call on other kids because of your race? (2) that teachers grade you harder than they grade other kids because of your race? (3) that you get disciplined more harshly by teachers than other kids because of your race? (4) that teachers think you are less smart than you really are because of your race? Each question was measured on a 5-point scale (1 = *never*, 2 = *a couple times each year*, 3 = *a couple times each month*, 4 = *once or twice each week*, 5 = *every day*). Items within each wave were recoded into a dichotomous variable (0 = *never*, 1 = *at least a couple times each year*) to understand the response patterns of youth who endorsed experiencing racial discrimination by their teachers at least a couple of times during the year. The dichotomous items from each wave were used as indicators in their respective cross-sectional model and in the longitudinal model.

Perceived racial discrimination from peers. In Waves 3 and 4, youth were asked in their self-administered questionnaire three questions regarding unfair treatment from their peers due to their race. The following questions were asked using the stem “How often do you feel”: (1) *like you are not picked for certain teams or other school activities because of your race?* (2) *that you get in fights with some kids because of your race?* (3) *that kids do not want to hang out with you because of your race?* Each item was measured on a 5-point scale (1 = *never*, 2 = *a couple times each year*, 3 = *a couple times each month*, 4 = *once or twice each week*, 5 = *every day*). Items within each wave were made into a dichotomous variable and used as latent indicators (0 = *never*, 1 = *at least a couple times each year*) to understand the response patterns of youth who endorsed experiencing racial discrimination by their peers at least a couple of times during the year. The dichotomous items from each wave were used as indicators in their respective cross-sectional model and in the longitudinal model.

Demographic Covariates. The covariates for this study were family household income (as a proxy for socioeconomic status) and gender. Family household income was used as a time-varying indicator and thus, measurements of household income at Waves 3 and 4 were modeled at each time point. This variable was measured using parent-reported annual household income and consisted of a single item with 22 categories at \$4,999 increments (i.e., 1 = *less than \$5,000*, 2 = *\$5,000-9,999*, 3 = *\$10,000-14,999*, . . . 22 = *\$100,000 or more*). Gender was dummy-coded (0 = *male*, 1 = *female*) and used as a time-invariant covariate for all analyses.

Analytic Approach

To test the first research question (i.e., *Are there distinct subgroups of Black youth based on various racial discrimination indicators?*) an LTA using the aforementioned indicators was used to distinguish empirically and statistically sound groups of adolescents with various racial discrimination experiences over time. LTA is an extension of latent class analysis (LCA) models. LCA is a technique used with cross-sectional data that analyzes relationships among observed categorical variables to create an underlying latent construct. LTA, on the other hand, models two or more latent constructs and provides the probability of being in a given class (or status) at Time 2 given membership in a particular class at Time 1 (Collins & Lanza, 2010). LTA is optimal when the goal is to understand how particular factors coalesce to create groups with similar experiences over time. Specifically, homogenous subgroups are derived from a heterogeneous population. LTA concurrently examines a measurement model that classifies individuals into latent classes at more than one time point and a structural model that includes transitions from one time point to another.

Mplus Version 7 software package (Muthén & Muthén, 1998-2012) was used to conduct all analyses. Missing data were handled using full information maximum likelihood estimation which accounts for data missing at random. Youth were nested in schools and therefore standard errors were adjusted by identifying "School" as a cluster variable in the Mplus software. Replication of the log-likelihood was verified for each model by using random start values and ensuring that convergence occurred on global rather than local solutions.

Multiple fit indices were used to examine optimal fit including the G^2 statistic, Bayesian information criterion (BIC), and Akaike information criterion (AIC). BIC and AIC values closer to zero reflect better fitting models. Furthermore, entropy, a measure of how well classes have been discriminated, was examined for the final model to ensure that participants were correctly classified into their specific class. An entropy value closer to 1 is preferred. Once classes were identified they were labeled appropriately. Ultimately, the decision on the final number of classes was driven by the model's statistical criteria, interpretability, and parsimony (Collins & Lanza, 2010).

The LTA model was specified using the steps outlined by Nylund, Muthén, Nishina, Bellmore, and Graham (2006) to ensure that the model is specified in a systematic fashion. According to Collins and Lanza (2010), it is helpful to examine separate LCA models as a preliminary step to inform model selection in LTA models. For this study, latent class models were fit separately for

racial discrimination indicators in the 8th and 11th grade prior to examining LTA models (results of the LCA models are available from first author on request). In essence, LCA models were used to establish the measurement model (i.e., the most likely latent class membership at a given time) and the LTA model was used to examine the structural model (i.e., changes in latent class membership across time).

To conduct the LTA, first, a series of unconstrained LTA models with increasing groups for each time point were assessed using the above-mentioned model fit indices. Next, measurement invariance of the LTA model was employed in order to (1) assess whether the same latent class structure existed in both the 8th and 11th grades and (2) obtain a parsimonious model with fewer estimated parameters for convergence. Testing measurement invariance consisted of comparing the LTA model with freely estimated parameters to a model with full measurement invariance (i.e., parameters constrained across time). This involved nesting the LTA model with constrained parameters across time in the model with parameters that are freely estimated across time (i.e., unconstrained LTA model). If the likelihood-ratio test was nonsignificant using the chi-square distribution, there were no differences in the 8th- and 11th-grade measurement models (see, Nylund et al., 2006, for in-depth review of estimating LTA models).

Finally, the demographic covariates were entered to examine whether the groups differed by youth gender and socioeconomic status. It is important to enter covariates after the measurement model is established to ensure it does not change the measurement structure. To do this, Asparouhov and Muthén's (2013) manual three-step approach was implemented. Odds ratios for the covariates were provided and interpreted in the results.

Results

Preliminary Analyses

Youth on average were 14.24 years of age (standard deviation [SD] = 0.50) at Wave 3, and 17.04 years (SD = 0.57) at Wave 4. Additionally, mean annual household income at both Waves 3 and 4 was between \$50,000 and \$54,999 (SD = \$20,000-\$25,000).

Table 1 shows the means (i.e., proportion) of youth who responded to experiencing various types of racial discrimination from their peers and teachers at least a couple times each year during the 8th and 11th grades by gender. Males were significantly more likely to endorse experiencing racial discrimination for most of the items compared with their female counterparts in both the 8th and 11th grades. Specifically, the only item that males and

Table 1. Means of Racial Discrimination Indicators by Gender and Their Chi-Square Differences for Grades 8 and 11.

Racial discrimination indicator	Grade 8			Grade 11		
	Males	Females	χ^2	Males	Females	χ^2
Teachers call on you less	.46	.40	2.67	.34	.18	17.77***
Teachers grade you harder	.41	.27	12.07**	.34	.15	25.74***
Teachers discipline harsher	.48	.33	13.44***	.40	.20	26.43***
Teachers think you are less smart	.39	.26	12.73***	.39	.18	32.08***
You are not picked for activity	.34	.20	16.74***	.24	.15	7.69**
You get in fights with some kids	.32	.18	16.32***	.22	.09	18.34***
Kids do not hang out with you	.27	.17	9.97**	.28	.12	21.40***

Note: Stem of each indicator is "Because of your race."

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

females were equally likely to endorse was *Teachers call on you less* in the 8th grade.

Latent Transition Analyses. LCA results for each time point showed that the best model at each grade was a three-class solution. We then conducted LTA models without covariates with two through five classes per time point to assess the class structure of the racial discrimination indicators and to determine whether the three-class models found in the cross-sectional results remained the best-fitting models. Table 2 shows the fit indices of the LTA. Though the AIC continued to decrease as the number of classes increased, the BIC increased between the three- and four-class models suggesting that the three-class model was the better fit. In addition, the entropy value for the three-class model was higher than the other models suggesting that the classes were clearly delineated (Celeux & Soromenho, 1996). As the BIC is a more robust fit index when determining the optimal number of classes (Nylund, Asparouhov, & Muthén, 2007) and entropy values closer to 1 are optimal, the three-status model was chosen.

Second, we assessed whether the classes derived from the three-class model were stable across time by employing full measurement invariance. Table 3 shows the fit statistics between the freely estimated three-class model

Table 2. Fit Statistics for LTA ($n = 711$).

Number of classes	G^2	df	AIC	BIC	Entropy
2	1031.98	16307	6925.30	7062.30	.79
3	917.41	16298	6648.06	6858.13	.81
4	734.38	16258	6487.33	6898.33	.74
5	687.33	16209	6472.183	7148.05	.72

Note: LTA = latent transition analysis; df = degrees of freedom; AIC = Akaike information criterion; BIC = Bayesian information criterion.

Table 3. Fit Statistics for Measurement Invariance Test Using Three-Class Model.

Model	G^2	df	G^2_{dif}	df_{dif}	p Value
Model 1: Freely estimated parameters	917.41	16,298			
Model 2: Constrained parameters	896.77	16,319	20.64	21	>.05

and a fully constrained three-class model. The G^2 difference test was nonsignificant indicating that there were no differences between classes in the 8th grade and the 11th grade. Therefore, the constrained model was chosen. This is optimal because it allows for fewer parameters to be estimated and suggests that the structure does not theoretically change over time.

Next, the item-response probabilities were examined for this three-class solution to attach substantive meaning to each class. Table 4 shows the item-response probabilities of each class endorsing the racial discrimination items "at least a couple times each year" in the 8th and 11th grades. The first class, representing 16% of the sample in the 8th and 10% of the sample in the 11th grade, was characterized as having high probabilities of experiencing racial discrimination from both their teachers and their peers. Thus, this class was labeled the Teacher-Peer Perceived Racial Discrimination (PRD) class. The second class represented 24% of the sample in the 8th grade and 12% of the 11th grade sample and had high probabilities of experiencing racial discrimination from their teachers but low probabilities of experiencing racial discrimination from their peers. Thus, this class was labeled the Teacher PRD class. The third class was the largest, representing 60% of the sample in the 8th grade and 78% of the sample in the 11th grade, and had the lowest probabilities of experiencing racial discrimination from both teachers and peers. Accordingly, this class was labeled the No PRD class. Figure 1 provides a visual representation of the item-response probabilities for each latent status.

Table 4. Latent Status Prevalences, Item Response Probabilities, and Transition Probabilities for Three-Class Invariant Model.

	Latent status		
	Teacher-peer PRD	Teacher PRD	No PRD
Latent status prevalence			
8th grade	.16	.24	.60
11th grade	.10	.12	.78
Item response probabilities			
Teacher racial discrimination indicators			
Teachers call on you less	.88	.72	.12
Teachers grade you harder	.92	.70	.03
You are disciplined harsher	.94	.84	.07
Teachers think you are less smart	.91	.72	.04
Peer racial discrimination indicators			
You are not picked for team/activity	.94	.30	.06
You get in fights with some kids	.92	.16	.06
Kids don't hang out with you	.94	.15	.07
Probability of transitioning to . . .			
Conditional on . . .			
. . . 8th-grade latent status			
Teacher-Peer PRD	.35	.25	.40
Teacher PRD	.16	.25	.60
No PRD	.06	.09	.85

Note: PRD = perceived racial discrimination. Item response probabilities >.50 are in boldface for interpretation. Item response probabilities constrained equal across time. Diagonal transitional probabilities in boldface represent the probability of remaining in the same class at both time points.

Transitional probabilities portray the likelihood that youth move to or remain in a class from the 8th grade to the 11th grade. Table 4 shows that approximately 35% of those in the Teacher-Peer PRD group in the 8th grade remained in that group in the 11th grade. Furthermore, 25% of those in the Teacher PRD group remained in that group in the 11th grade. Finally, 85% of those in the No PRD group were in that group in the 11th grade. Notably, approximately 40% and 60% of those in the Teacher-Peer PRD and Teacher PRD groups in the 8th grade, respectively, were in the No PRD group in the 11th grade. In addition, 25% of those experiencing racial discrimination from teacher and peers in the 8th grade, no longer experienced racial discrimination from their peers in the 11th grade. Furthermore, 16% of those experiencing

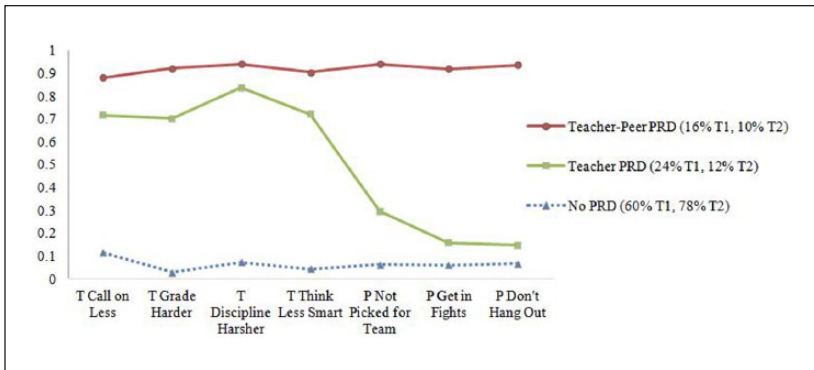


Figure 1. Racial discrimination indicator probabilities from the three-class invariant latent transition model. *T* are teacher-related items and *P* are peer-related items. Item response parameters are held equal across time.

discrimination from only teachers in the 8th grade went on to experience discrimination from both teachers and peers. A small proportion of those who were least likely to experience racial discrimination in the 8th grade went to the Teacher-Peer PRD (6%) and Teacher PRD group (9%).

Gender and Household Income. The covariates of gender and household income were also examined in the LTA model. Table 5 shows that gender was a significant covariate for both the 8th-grade and 11th-grade groups. Specifically, females were 68% less likely to be in the Teacher-Peer PRD group (odds ratio [*OR*] = 0.32, $p < .05$) than males, when No PRD group was used as the referent category in the 8th grade. In addition, being female decreased the probability of membership in the Teacher-Peer PRD group ($OR = 0.33$, $p < .05$) and the Teacher PRD group ($OR = 0.15$, $p < .05$), when the No PRD group was used as the referent category in the 11th grade. With regard to household income, it did not covary significantly in 8th grade but was significant in 11th grade. Specifically, in the 11th grade, income was a significant covariate suggesting that as household income increased there was an 11% lower likelihood of being in the Teacher-PRD group than in the No PRD group.

Discussion

Racial discrimination is viewed as a pervasive and chronic stressor that is experienced by many Black youth. Though researchers acknowledged that

Table 5. Logistic Regression Coefficients and Odds Ratios for Three-Class Invariant Model With Covariates Using the No PRD Class as the Referent Group.

	Effect	Logit	SE	t	Odds ratio
Grade 8					
Teacher-Peer PRD	Female	-1.13	.34	-3.59**	0.32
	Income	-0.02	.03	.86	0.98
Teacher PRD	Female	-0.49	.27	-1.81	0.61
	Income	0.02	.02	.68	1.02
Grade 11					
Teacher-Peer PRD	Female	-1.11	.37	-2.98**	0.33
	Income	-0.12	.03	-3.69***	0.89
Teacher PRD	Female	-1.87	.43	-4.35***	0.15
	Income	-0.12	.03	-3.69	0.97

Note: PRD = perceived racial discrimination.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

there is heterogeneity within the Black population, very few studies have explored variability in racial discrimination experiences among Black youth. This study sought to address this gap by using a person-centered approach to identify homogenous subgroups in regard to experienced racial discrimination using a heterogeneous Black population.

Guided by a cultural–ecological framework (Garcia Coll et al., 1996), the objective of this study was to examine the heterogeneity in racial discrimination experiences among Black youth by deriving subgroups based on endorsement of experiencing acts of discrimination from teachers and peers in middle and high school (i.e., 8th and 11th grades). LTA was used to empirically derive three racial discrimination classes at two time points, describe the probability of transitioning into each class across time, and demonstrate that gender and household income differentiated class membership.

Identification of Subgroups

Results of the LTAs supported the hypothesis that at least three subgroups of youth exist characterized by high and low probabilities of experiencing racial discrimination. Specifically, results provided evidence that there is a Teacher-Peer PRD group characterized by high probabilities of experiencing racial discrimination from teachers and peers, a Teacher PRD group with low probabilities of experiencing racial discrimination from peers but high probabilities from their teachers, and a No PRD group with low probabilities of

experiencing racial discrimination from teachers and peers. The same three perceived racial discrimination classes emerged in the 8th and 11th grades.

Overall, approximately 40% and 22% of youth experienced some form of discrimination from their teachers or peers in the 8th grade and 11th grade, respectively. This is a lower proportion compared with studies that use general measures of racial discrimination but comparable with studies that use more specific measures (e.g., Cogburn, Chavous, & Griffin, 2011; O. N. Thomas, Caldwell, Faison, & Jackson, 2009). For instance, O. N. Thomas et al. (2009) found that approximately 34% of participants reported experiencing racial discrimination from their teachers. In addition, Respress, Morris, Gary, Lewin, and Francis (2013) found that about 26% of youth reported experiencing racial discrimination from their peers and twice as many reported experiencing such prejudice from their teachers. This is a considerable proportion of youth given the mental, physical, and behavioral consequences that result from experiencing racial discrimination (Brody et al., 2006; Seaton et al., 2008; Sellers et al., 2006). Furthermore, youth tend to underreport experiencing racial discrimination (Rosenbloom & Way, 2004) suggesting that these proportions do not capture all youth with such experiences.

Identification of the Teacher-Peer and Teacher PRD subgroups is also representative of the types of racial discrimination experienced that are reported in the literature. Findings indicated a small group that experienced racial discrimination from both their teachers and peers and a slightly larger group that experienced it only from their teachers. These results are comparable to research showing that Black youth tend to report less discrimination from their peers in general, and in comparison with discrimination experienced from their teachers (Pachter et al., 2010; Respress et al., 2013; Rosenbloom & Way, 2004; Wang & Huguley, 2012).

The No PRD group was the largest subgroup to emerge at both time points. This is promising given the deleterious effects of racial discrimination as it suggests there is a large subgroup that does not experience racial discrimination from their peers and teachers during the 8th and 11th grades. This appears contrary to research that finds that 87% to 94% of youth report experiencing racial discrimination in a given year (Brody et al., 2006; Seaton et al., 2008; Sellers et al., 2006). However, it must be noted that the current findings focus on school-based racial discrimination and Black youth also report racial discrimination from other sources such as store personnel, their communities, and law enforcement (e.g., Stewart et al., 2009). Also, as shown in the current study, Black youth transition in and out of racial discrimination statuses suggesting that these findings are only a snapshot of youth's experiences at a given time.

Stability and Change Over Time

The structural model examined was also used to understand whether youth transitioned from one racial discrimination status to another across the two time points. Results from this study demonstrated that there was both stability and change among youth. Specifically, those who were in either the Teacher-Peer PRD or Teacher PRD group had a higher probability of transitioning to the No PRD group whereas those who were in the No PRD group had a high probability of staying in that group.

Despite data to suggest that racial discrimination experiences tend to increase as youth get older (Brody et al., 2006; Greene et al., 2006), the proportion of those in the Teacher-Peer PRD in this study decreased from 8th grade to 11th grade. It is likely that this is due to a change in school context and encountering new teachers and possibly new peers. Furthermore, this study did not examine cumulative experiences so it may be that racial discrimination from these sources decreased while discrimination from other sources increased. For instance, Greene et al. (2006) found in a sample of youth that there was a linear increase in experiences of racial discrimination stemming from adults but a stable trajectory of racial discrimination stemming from youth's peers over time. In addition, Fisher et al. (2000) found that age predicted racial discrimination only for institutional discriminatory distress and not for educational or peer-related discrimination.

In essence, the present findings show that there are some youth who experience racial discrimination from their teachers and peers in middle school but not in high school and others that experience such race-related stress only in high school—results that cannot be shown through variable-centered approaches. Though there are previous longitudinal studies that examine the development of racial discrimination, they are nomothetic showing only the trend for all youth and do not capture variability at the idiographic level. The current study is a start in describing the heterogeneity of racial discrimination experiences and further studies are needed to understand these trajectories and their resulting outcomes.

Gender and Household Income Considerations

Gender and household income were incorporated as covariates in the LTA. When this was done, we found that youth's likelihood of being classified in the three subgroups depended on their gender and household income. Consistent with previous research that found males report more experiences of racial discrimination than their female counterparts (Chavous et al., 2008), results of this study showed that males were more likely to be in the Teacher-Peer PRD and

Teacher PRD groups, whereas girls were more likely to be in the No PRD. These gender differences may exist within Black populations because Black males are stereotyped as physically threatening or as anti-intellectual (Chavous et al., 2008) and thus are disciplined more harshly or perceived as less smart than females and Other race/ethnic groups (Greene et al., 2006). An additional explanation may be that because males are socialized to be more prepared for racial bias and females are more likely to be socialized to have more racial pride (A. J. Thomas & Speight, 1999), males may have been more attentive to racial discrimination experiences.

Household income was unrelated to class membership in 8th grade but did predict racial discrimination status in the 11th grade for those in the Teacher-Peer PRD group. Current research that examines the influence of SES-related variables on racial discrimination is mixed. For instance, Brody et al. (2006) found that Black youth with higher SES had increases in racial discrimination across adolescence; however, Chavous et al. (2008) found that less economically advantaged backgrounds influenced racial discrimination patterns for boys but there was no relationship for girls. Our study adds to the complexity of SES and racial discrimination and supports the need to further understand this association among Black youth.

Limitations and Future Directions

This study is not without limitations. First, we only examined youth's experiences of racial discrimination from their peers and teachers but these youth may have experienced other forms of racial discrimination beyond those surveyed. Racial discrimination may stem from several sources and coalesce to create other subgroups; thus, it will be important in future studies to examine a comprehensive set of racial discrimination items. In addition, this study focuses on youth's direct experiences with racial discrimination from peers and teachers and not vicarious experiences. Previous research has shown that youth are affected by racial discrimination experienced by others (Rosenbloom & Way, 2004). Thus, it is possible that these youth have witnessed or have been aware of racial discrimination experienced by those in their school and that such experiences have had an impact on them.

There are also limitations with regard to sample selection. As the current sample was not randomly selected and was collected in the early 1990s, the findings may not be generalizable to the population of Black youth today. Future research should therefore replicate these findings using a current randomly selected national sample to assess whether these patterns remain. In addition, the racial composition of the middle and high schools was not examined and research shows that a diverse school is associated with more

racial discrimination (Seaton & Yip, 2009). Thus, it is possible that those youth who did not report racial discrimination from their peers and teachers were in a less diverse school where racial discrimination is less likely.

Finally, there was a 3-year time difference between the third and fourth wave. Additional racial discrimination experiences that were not captured from this time frame may add to the complexity of the current findings and create additional subgroups; however, it was not possible with the current data to explore stability and change of racial discrimination across shorter time periods.

Conclusion

Despite its limitations, the results of the present study add a new dimension to the investigation of racial discrimination in Black youth. This study shows that there are multiple subgroups of youth based on experiences of devaluation by their peers or teachers. Specifically, young Black males and youth with lower socioeconomic status are at risk of experiencing racial discrimination from their teachers and peers in middle and high school. Though reducing and preventing racial discrimination is multifaceted, eliminating covert and overt unfair treatment and prejudices within the school context can prove to be beneficial. Overall, the results emphasize the need to understand the heterogeneity of experienced racial discrimination within Black populations and move beyond treating Black youth as a monolithic group.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

- Asparouhov, T., & Muthén, B. (2013). *Auxiliary variables in mixture modeling: 3-Step approaches using Mplus*. Retrieved from <http://www.statmodel.com/examples/webnotes/webnote15.pdf>
- Benner, A. D., & Graham, S. (2013). The antecedents and consequences of racial/ethnic discrimination during adolescence: Does the source of discrimination matter? *Developmental Psychology, 49*, 1602-1613. doi:10.1037/a0030557
- Brodish, A. B., Cogburn, C. D., Fuller-Rowell, T. E., Peck, S., Malanchuk, O., & Eccles, J. S. (2011). Perceived racial discrimination as a predictor of health

- behaviors: The moderating role of gender. *Race and Social Problems*, 3, 160-169. doi:10.1007/s12552-011-9050-6
- Brody, G. H., Chen, Y.-F., Murry, V. M., Ge, X., Simons, R. L., Gibbons, F. X., . . . Cutrona, C. E. (2006). Perceived discrimination and the adjustment of African American youths: A five-year longitudinal analysis with contextual moderation effects. *Child Development*, 77, 1170-1189. doi:10.1111/j.1467-8624.2006.00927.x
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology*, 22, 723-742.
- Celeux, G., & Soromenho, G. (1996). An entropy criterion for assessing the number of clusters in a mixture model. *Journal of Classification*, 13, 195-212.
- Chavous, T. M., Rivas-Drake, D., Smalls, C., Griffin, T., & Cogburn, C. (2008). Gender matters, too: The influences of school racial discrimination and racial identity on academic engagement outcomes among African American adolescents. *Developmental Psychology*, 44, 637-654.
- Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans: A biopsychosocial model. *American Psychologist*, 54, 805-816. doi:10.1037/0003-066X.54.10.805
- Cogburn, C. D., Chavous, T. M., & Griffin, T. M. (2011). School-based racial and gender discrimination among African American adolescents: Exploring gender variation in frequency and implications for adjustment. *Race and Social Problems*, 3, 25-37. doi:10.1007/s12552-011-9040-8
- Collins, L. M., & Lanza, S. T. (2010). *Latent class and latent transition analysis: With applications in the social, behavioral, and health sciences*. New York, NY: Wiley.
- Eccles, J. S. (1997). *MADICS Study of Adolescent Development in Multiple Contexts, 1991-1998*. Retrieved from <http://thedata.harvard.edu/dvn/dv/mra/faces/study/StudyPage.xhtml?globalId=hdl:1902.1/01066>
- Eccles, J. S., Wong, C. A., & Peck, S. C. (2006). Ethnicity as a social context for the development of African-American adolescents. *Journal of School Psychology*, 44, 407-426.
- Fisher, C. B., Wallace, S. A., & Fenton, R. E. (2000). Discrimination distress during adolescence. *Journal of Youth and Adolescence*, 29, 679-695. doi:10.1023/A:1026455906512
- Garcia Coll, C., Lamberty, G., Jenkin, R., McAdoo, H. P., Crnic, K., Wasik, B. H., & Vazquez Garcia, H. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67, 1891-1914. doi:10.1111/1467-8624.ep9706060144
- Garcia Coll, C., & Szalacha, L. A. (2004). The multiple contexts of middle childhood. *The Future of Children*, 14, 81-97.
- Greene, M. L., Way, N., & Pahl, K. (2006). Trajectories of perceived adult and peer discrimination among Black, Latino, and Asian American adolescents: Patterns and psychological correlates. *Developmental Psychology*, 42, 218-236. doi:http://dx.doi.org/10.1037/0012-1649.42.2.218

- Jones, C. P. (2000). Levels of racism: A theoretic framework and a gardener's tale. *American Journal of Public Health, 90*, 1212-1215. doi:10.2105/AJPH.90.8.1212
- Laumann, E. O. (1970). *Social stratification research and theory for the 1970's*. New York, NY: Bobs-Merrill.
- Martin, M. J., McCarthy, B., Conger, R. D., Gibbons, F. X., Simons, R. L., Cutrona, C. E., & Brody, G. H. (2011). The enduring significance of racism: Discrimination and delinquency among Black American youth. *Journal of Research on Adolescence, 21*, 662-676. doi:10.1111/j.1532-7795.2010.00699.x
- Muthén, L. K., & Muthén, B. (1998-2012). *Mplus user's guide*. Los Angeles, CA: Muthén & Muthén.
- Nylund, K. L., Asparouhov, T., & Muthén, B. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling, 14*, 535-569.
- Nylund, K. L., Muthén, B., Nishina, A., Bellmore, A., & Graham, S. (2006). *Stability and instability of peer victimization during middle school: Using latent transition analysis with covariates, distal outcomes, and modeling extensions* (Unpublished manuscript). Retrieved from https://www.statmodel.com/download/LTA_DP_FINAL.pdf
- Pachter, L. M., Bernstein, B. A., Szalacha, L. A., & Garcia Coll, C. (2010). Perceived racism and discrimination in children and youths: An exploratory study. *Health and Social Work, 35*, 61-69.
- Phelan, P., Yu, H. C., & Davidson, A. L. (1994). Navigating the psychosocial pressures of adolescence: The voices and experiences of high school youth. *American Educational Research Journal, 31*, 415-447. doi:10.2307/1163316
- Respress, B. N., Morris, D. L., Gary, F. A., Lewin, L. C., & Francis, S. A. (2013). Social determinants of adolescent depression: An examination of racial differences. *Issues in Mental Health Nursing, 34*, 539-549. doi:10.3109/01612840.2012.758206
- Riina, E. M., & McHale, S. M. (2012). Adolescents' experiences of discrimination and parent-adolescent relationship quality: The moderating roles of sociocultural processes. *Journal of Family Issues, 33*, 851-873. doi:10.1177/0192513X11423897
- Rivas-Drake, D., Hughes, D., & Way, N. (2009). A preliminary analysis of associations among ethnic racial socialization, ethnic discrimination, and ethnic identity among urban sixth graders. *Journal of Research on Adolescence, 19*, 558-584. doi:10.1111/j.1532-7795.2009.00607.x
- Rosenbloom, S., & Way, N. (2004). Experiences of discrimination among African American, Asian American, and Latino adolescents in an urban high school. *Youth & Society, 35*, 420-451. doi:10.1177/0044118X03261479
- Seaton, E. K., Caldwell, C. H., Sellers, R. M., & Jackson, J. S. (2008). The prevalence of perceived discrimination among African American and Caribbean Black youth. *Developmental Psychology, 44*, 1288-1297. doi:10.1037/a0012747
- Seaton, E. K., & Yip, T. (2009). School and neighborhood contexts, perceptions of racial discrimination, and psychological well-being among African American

- adolescents. *Journal of Youth and Adolescence*, 38, 153-163. doi:10.1007/s10964-008-9356-x
- Sellers, R. M., Copeland-Linder, N., Martin, P. P., & Lewis, R. L. (2006). Racial identity matters: The relationship between racial discrimination and psychological functioning in African American adolescents. *Journal of Research on Adolescence*, 16, 187-216. doi:10.1111/j.1532-7795.2006.00128.x
- Stewart, E. A., Baumer, E. P., Brunson, R. K., & Simons, R. L. (2009). Neighborhood racial context and perceptions of police-based racial discrimination among Black youth. *Criminology: An Interdisciplinary Journal*, 47, 847-887. doi:10.1111/j.1745-9125.2009.00159.x
- Thomas, A. J., & Speight, S. L. (1999). Racial identity and racial socialization attitudes of African American parents. *Journal of Black Psychology*, 25, 152-170. doi:10.1177/0095798499025002002
- Thomas, O. N., Caldwell, C. H., Faison, N., & Jackson, J. S. (2009). Promoting academic achievement: The role of racial identity in buffering perceptions of teacher discrimination on academic achievement among African American and Caribbean Black adolescents. *Journal of Educational Psychology*, 101, 420-431. doi:10.1037/a0014578
- Wang, M. T., & Huguley, J. P. (2012). Parental racial socialization as a moderator of the effects of racial discrimination on educational success among African American adolescents. *Child Development*, 83, 1716-1731. doi:10.1111/j.1467-8624.2012.01808.x
- Wong, C. A., Eccles, J. S., & Sameroff, A. (2003). The influence of ethnic discrimination and ethnic identification on African American adolescents' school and socioemotional adjustment. *Journal of Personality*, 71, 1197-1232. doi:10.1111/1467-6494.7106012