

Ethnic Differences in Family Stress Processes Among African-Americans and Black Caribbeans

Bridget J. Goosby · Cleopatra Howard Caldwell ·
Anna Bellatorre · James S. Jackson

Published online: 26 November 2011
© Springer Science + Business Media, LLC 2011

Abstract Several theories of stress exposure, including the stress process and the family stress model for economically disadvantaged families, suggest that family processes work similarly across race/ethnic groups. Much of this research, however, treats African-Americans as a monolithic group and ignores potential differences in family stress processes within race that may emerge across ethnic groups. This study examines whether family stress processes differ intraracially in African-American and Black Caribbean families. Using data from the National Survey of American Life, a national representative data set of African-American and Black Caribbean families, we assess the extent to which parents' stress appraisals and psychological adjustment are related to their adolescent children's stress appraisals, psychological adjustment, and depressive symptoms. Our study illustrates that stress processes differ by ethnicity and operate through varying pathways in African-American and Black Caribbean families. The implications of intraracial variations in stress processes are discussed.

Keywords Stress · Black Caribbean · African-American · Family ·
Depressive symptoms · Intraracial

B. J. Goosby (✉)
Department of Sociology, University of Nebraska—Lincoln, 741 Oldfather Hall, Lincoln,
NE 68588, USA
e-mail: bgoosby2@unl.edu

C. H. Caldwell
Department of Health Behavior and Health Education, School of Public Health,
University of Michigan, 846 SPH I, 1415 Washington Heights, Ann Arbor,
MI 48109-2029, USA

A. Bellatorre
Department of Sociology, University of Nebraska—Lincoln, 711 Oldfather Hall, Lincoln,
NE 68588, USA

J. S. Jackson
Department of Psychology, Institute for Social Research, University of Michigan, 5010 ISR,
426 Thompson St., Ann Arbor,
MI 48109-2029, USA

Introduction

Family exposure to stress is tied to numerous harmful outcomes for youth and adults, including elevated depressive symptoms and poor health as well as increased youth behavioral problems (Gutman et al. 2005; Conger et al. 2002; Wikrama et al. 1997), and blacks are a particularly vulnerable population to high levels of stress (Sternthal et al. 2011). While an extensive literature illustrates the consequences of acute and chronic stressors within the context of families across race and ethnic groups, there is a dearth of research on *intraracial* differences in adjustment to the presence of events perceived as stressful. Empirically tested theoretical models of the family stress process for economically disadvantaged families (i.e., McLoyd 1998, 1990) suggest that exposure to stress due to events associated with poverty inherently function similarly across race/ethnic groups (Conger et al. 2002). However, assessing *intraracial* differences in family stress processes may lead to a more refined understanding of how parents from different ethnic backgrounds respond to stress and how their stress and coping strategies are related to their adolescent children's psychological well-being.

While Black Caribbeans and African-Americans share a number of similar characteristics in the United States—including living in the same neighborhoods, attending the same schools, and experiencing discrimination (Waters 1997)—their immigrant origins and cultures may contribute to differences in manifestations of distress and coping as well as family processes (cf. Rong and Brown 2003; Georgiades et al. 2007). In this study, we examine how stress appraisal is associated with adjustment and coping among African-American and Black Caribbean parents and their adolescent children. To this end, we assess the extent to which stressors reported by parents are associated with their own psychological resources and depressive symptoms. Subsequently, we assess the relationship between parents' psychological well-being and their adolescent's appraisals of stress, adjustment, and depressive symptoms. Using data from the National Survey of American Life (NSAL) (Jackson et al. 2004), we explore how pathways of stress processes may vary for ethnic groups of African descent within the US population.

Background

Diversity in the US black population is rapidly increasing. The number of foreign-born blacks grew by 27.2% in the 1980s, by approximately 42% during the 1990s, and by about 50% in the 2000s (U.S. Census Bureau 2005, 2007). At present, the US black population numbers approximately 36 million, and about 8% of that population is foreign-born (U.S. Census Bureau 2007). Moreover, of foreign-born blacks, about 60% are of West Indian or Caribbean descent (U.S. Census Bureau 2005). While the ethnic diversity of the US black population continues to grow, there exists only very limited research that examines ethnic heterogeneity among blacks and their mental health outcomes. Although there are similarities among African-Americans and other ethnic groups of African descent, their context, culture, socialization processes, and risk of experiencing mental health problems may vary, as illustrated by the few studies conducted on ethnic differences in the risk of

depressive symptoms and psychological disorders among blacks (cf. Lincoln et al. 2007). In addition, while research assessing intraracial differences in adult mental health outcomes is beginning to emerge, there has yet to be any systematic empirical analysis of black families across ethnic groups.

Though much of the prior research on Black Caribbeans in the USA is based on small non-representative convenience samples and community-based studies (see Lincoln et al. 2007), there is an emergent body of empirical research that uses nationally representative samples of African-Americans and Black Caribbean adults. According to results by Williams et al. (2007a, b), Black Caribbean adults are at an increased risk for experiencing psychological disorders, including major depression, relative to African-Americans (Williams et al. 2007a, b). However, in a sample of the most disadvantaged African-American and Black Caribbean women participating in Women, Infants and Children, African-American women were at almost 2.5 times greater risk of experiencing depression (Miranda et al. 2005). Risk factors for elevated levels of depressive symptoms among Black Caribbeans relative to African-Americans also vary by ethnicity (Lincoln et al. 2007). While information is increasing on diversity among black adults, ethnic differences in family stress processes and subsequent adjustment in their families are limited to clinical samples and small non-representative samples used in ethnographic research (Waters 1999; Stepick et al. 2001; Kasinitz et al. 2001).

There is also evidence that rates of depression and depressive symptoms vary by ethnicity among adolescents, although the findings are mixed at best and the examination of variation in family stress processes is still needed. Prior research illustrates that rates of depression among black adolescents were lower than that of Whites (cf. Allen and Mitchell 1998) in community-based and clinical studies. An additional community-based study of high schools, however, found that African-American and Mexican American adolescents reported higher rates of depression than other race and ethnic groups (Roberts et al. 1997). Across race differences in a nationally representative sample indicates that in adolescence, black and Latino youth actually have lower rates of depressive symptoms relative to their white counterparts (McLeod and Owens 2004). Ethnic differences in rates of depression have been linked to differences in cultural and racial socialization among youth by their parents, suggesting that family processes may differ across ethnic groups (Georgiades et al. 2007; Knight et al. 1994). Research, however, on the differences in socialization among different ethnic groups in the black population is sparse. By adapting the stress process model and building on the family stress model, our goal is to contribute to the family process literature by assessing the extent to which family responses to stress among blacks vary across ethnicity.

Stress Exposure in the Family Context

Individual stress processes are imbedded within the larger family stress process and have implications for the general well-being of parents and their children. At the individual level, the stress process model illustrates the progression through which individuals attempt to cope with exposure to stressors (Pearlin et al. 1981; Pearlin and Schooler 1978). Specifically, as adults are exposed to stress or appraise a situation as stressful, their self-concept, including mastery and self-esteem, may be

diminished, leaving them vulnerable to experiencing elevated levels of depressive symptoms (Pearlin et al. 1981). Self-concept, however, can also play a role in buffering the deleterious impact of stress as individuals with higher levels of mastery and self-esteem are more resilient, potentially protecting individuals from experiencing depression as a result of stressful contexts (Christi-Mizell and Erickson 2007; Rosenberg et al. 1995). Indeed, the extent to which individuals *perceive* events and their objective contexts as stressful is very likely linked to their own levels of mastery, self-esteem, and risk of experiencing elevated depressive symptoms (Pearlin 1989). Moreover, for those vulnerable in the stress process who experience declines in self-concept and elevated levels of depressive symptoms, there are interpersonal consequences including increased negative interaction with family members which may exacerbate the risk of other family members experiencing distress (Lincoln et al. 2005).

In black families experiencing stressors including economic hardship, work-related stress, and racial discrimination, parents are more likely to experience increased conflict with each other, elevated levels of distress and depression, and have youth with lower levels of adjustment (Gutman et al. 2005; Murray et al. 2001; Broman 2001; Hammen et al. 2004). Research examining the consequences of stress in the form of economic hardship shows that poverty is associated with lower levels of mastery in mothers as well as higher levels of depressive symptoms, which in turn is associated with declines in supportive parenting behavior (Goosby 2007; McLoyd 1998). Harsh and inconsistent punishment among depressed mothers elevates the risk of psychological distress in adolescent youth, including higher levels of depressive symptoms, increased risk of health complaints, and lower levels of overall adjustment (Repetti et al. 2002; Conger et al. 2002; Crawford et al. 2001).

Among Black Caribbean families in the United States, there is limited information regarding parent–child processes. Research examining English-speaking Caribbean families who immigrate to the United States note that major stressors for parents include the cultural disconnects in their traditional parenting styles (authoritarian parenting) and socialization from “mainstream” parenting in the dominant US culture (Roopnarine and Shin 2003). Baptiste et al. (1997) note that Caribbean parents experience stressors associated with racial marginalization, loss of parental authority of their adolescent children, conflicts in parenting styles, and the assimilation into the dominant culture by their children. These challenges are associated with elevated levels of distress in parents. Caribbean youth, particularly in adolescence, may experience increased conflict with their parents and elevated levels of distress as a result (Leo-Rhynie 1997).

The Current Study

In this study, we examine the stress process within the context of the family, taking into account an important omission of previous research: the extent to which there are ethnic group differences in psychological adjustment and stress appraisal among black adolescents and their parents. Further, we examine the extent to which adolescents’ exposure to parental stress is associated with the adolescent stress process and manifestations of distress through elevated depressive symptoms. Our intent is to determine whether the family stress process is similar or different for

Black Caribbean adolescents relative to African-American adolescents when exposed to parental stress appraisal and depressive symptoms. For the purpose of this study, we specifically focus on families where at least one biological parent is present in the household. We address the following questions: (1) Are there ethnic differences in parental responses to stressful life conditions? (2) Does the process through which parents' stress and psychological well-being influence their adolescents' stress process vary by ethnicity? (3) Do adolescents' own stress process in the form of stress appraisal, adjustment, and depressive symptoms vary by ethnicity? (4) Finally, does the overall conceptual model of the family stress process vary by ethnicity?

Proposed Model

Building on the individual and family stress process models, we argue that for both African-Americans and Black Caribbeans, parental reports of stressors will be associated with their own psychological well-being (i.e., levels of mastery, self-esteem, and depressive symptoms). Specifically, parents with higher levels of stressors should have lower levels of mastery and self-esteem and elevated levels of depressive symptoms. Their psychological well-being, in turn, will be associated with their adolescent offspring's depressive symptoms. Parental appraisals of stressors and psychological well-being should also be associated with increased levels of adolescents' perceptions of stress. In other words, as parental perceived stress and depressive symptoms increase, adolescents will appraise their own lives as increasingly stressful. The pathways through which parents' stress influences adolescent depressive symptoms will also include adolescents' own mobilization of coping resources (i.e., adjustment) in the form of active coping (i.e., John Henryism), mastery, and self-esteem. Adolescent adjustment should be an important mediator of the relationships between parent stress, adjustment, and adolescent depressive symptoms and between adolescent stress appraisal and adolescent depressive symptoms. However, we expect to see differences in stress processes between ethnic groups, both in how parents respond to stress and in adolescents own stress processes. To our knowledge, however, there is limited information on the socialization processes in Black Caribbean families. Existing literature on ethnic differences in offspring socialization and family processes indicates that while sharing similar social characteristics (i.e., living in similar neighborhoods, going to similar schools, experiencing discrimination), the pathways through which stress influences family processes will vary due to the cultural variations in responding to stress and manifestations of distress among family members.

Methods

Data

The participants in this study were African-American and Black Caribbean youth and their parents from the National Survey of American Life (NSAL). The NSAL adult sample consisted of a nationwide survey of the African-American, Black

Caribbean, and non-Hispanic White adult population and is based on a stratified, multi-stage area probability sample of the non-institutionalized civilian population in the 48 contiguous states (Jackson et al. 2004). The NSAL provides a comprehensive study of Black Americans with an emphasis on mental disorders, stressors, and risk/resilient factors (Jackson et al. 2004). Every Black Caribbean and African-American household that included an adult participant was screened for an eligible adolescent living in the household, and adolescents were selected using a random selection procedure. Because the adolescents sampled were co-derived with adults in the survey, they are considered a nationally representative sample of adolescents in the 13–17 age range. For the purpose of this study, data from the adult sample were merged with the adolescent sample based on matching household identification. In some cases, the focal adult interviewed in the household was not the parent of the adolescent participating in the interview. The original adolescent sample consisted of 1,170 adolescent cases, however, because in this study we are primarily interested in relationship between adolescents and their parents, only cases where adults identified themselves as the parents of the focal adolescents were included and 300 cases were dropped. Thus, the final sample included 870 adolescents and their parents (African-American $n=612$; Black Caribbean $n=258$).

Measures

Adolescent Measures

Depressive symptoms are measured using the *Center for Epidemiological Studies Depression (CES-D) Scale*. The abbreviated version of the CES-D assesses the frequency of depressive symptoms experienced within the past week (Radloff 1977). Although originally developed as a 20-item measure, the CES-D has been shortened from 20 items to 12 items and has been used with adolescent populations in previous research (Roberts and Sobhan 1992). The Likert scale ($\alpha=0.68$) consists of responses ranging from 0 (“rarely”) to 3 (“most or all of the time”). Sample items include “I did not feel like eating, my appetite was poor” and “My sleep was restless,” etcetera. Depressive symptoms were grand mean-centered, and higher scores indicate more depressive symptoms.

Adolescent stress appraisal was measured using Cohen’s Perceived Stress Scale ($\alpha=0.78$). The scale is comprised of a sum of 14 items measuring the degree to which life events are appraised as stressful (Cohen et al. 1983) using a Likert scale where higher scores indicate higher levels of stress. The measure includes items such as “In the past month have you felt nervous or stressed out?,” “been upset because of something that happened that you didn’t expect?,” “dealt successfully with your daily hassles,” and so on. The stress appraisal score is mean-centered in the final analysis.

Adolescent adjustment is used as an endogenous latent variable comprised of observed measures of *mastery*, *self-esteem*, and *John Henryism* (root mean square error of approximation (RMSEA)=0.000; Comparative Fit Index (CFI)=1.00; Tucker–Lewis Index (TLI)=1.00). *Mastery* is a seven-item scale that measures the extent to which a person feels that they have control over events in his or her life (Pearlin and Schooler 1978) and is reported for both adults and their adolescent children. The item responses range from 1 to 4 where (1) is strongly disagree, (2) is

somewhat disagree, (3) is somewhat agree, and (4) is strongly agree. Items were reverse-coded to reflect higher scores for increased feelings of control. *Self-esteem* of adolescents and parents are measured using a ten-item scale measuring the extent to which the respondents positively view themselves as individuals (Rosenberg et al. 1995; Rosenberg 1979). The item responses ranged from 1 to 4 (strongly disagree to strongly agree) where items were coded to indicate higher scores for more positive feeling about one's self. *John Henryism*, a measure of active coping, is an 11-item summed scale (James 1994) and include items such as "Once I make up mind to do something, I stick with it until the job is done" and "When things don't go the way I want them to, I just work harder." Responses to the items range from 1 to 4 with higher scores reflecting higher levels of active coping: (1) completely false, (2) somewhat false, (3) somewhat true, and (4) completely true. The standardized factor loading for the observed variables on adolescent adjustment were 0.66, 0.82, and 0.42, respectively.

Parent Measures

Parent stress appraisal, reported by the focal parent, is a count measure of events the adult has experienced in the past month (0 = no, did not experience event; 1 = yes, experienced event). The index provides a list of stressful life events including health problems, relationship quality, problems with children, discrimination, and economic stress. These items are summed and higher scores indicate more reported stressors.

Parent measures of psychological resources and distress include measures of *mastery* and *self-esteem*, which are aspects of psychological resources and depressive symptoms as an indicator of distress. These items are measured as observed variables in the proposed structural equation model. *Parent mastery* is measured using the Pearlin Mastery scale and is constructed using the same measures as the adolescent version of the scale. The mastery scale and the subsequent scales are mean-centered. *Parent self-esteem* is measured using the Rosenberg Self-Esteem scale, and *Parent Depressive symptoms* are measured using the CES-D 12 item scale. These measures are identical to the measures used for adolescents. These three measures are allowed to correlate with one another in the full structural equation model.

Control Variables

Background control characteristics for both adolescents and parents are included in the multivariate analyses. Differences in adolescents' age and sex are controlled. Parent background control variables include marital status, where married or cohabiting is the reference category and dummy variables are included for separated or divorced and never married. The income-to-needs ratio was used to control for poverty status. Finally, the focal parents' level of education, in years, was also included.

Analytic Strategy

The descriptive statistics for complex survey design were calculated using the *svy:tab* command for dichotomous variables and the *svy:mean* for continuous variables in Stata version 11, which provides weighted proportions, adjusted means,

and standard errors. The post hoc calculations were estimated to test the null hypothesis of difference between variables by ethnicity. Wald test F statistics were calculated for the variable means, and the design-based F statistics were calculated for differences in proportions.

In the multivariate analysis, structural equation modeling (SEM) multigroup analysis was used to test the extent to which African-American and Black Caribbean families have invariant individual and familial stress processes. Because the data were collected using a complex survey design, we employ multigroup SEM adjusted for nested dependence of standard errors using Type=Complex in *Mplus* version 6.1. In the multigroup analysis, the measurement model for the latent construct adolescent adjustment was assessed for relationships with the observed variables and to assess the model's potential invariance across groups (Hayduk 1987). Based on preliminary analyses available upon request, we tested for equivalence of the measurement model for adolescent adjustment across groups. Constraining the loadings of each of the three measures to be equal across groups resulted in a reduction in model fit, and thus, the loadings were allowed to vary across groups in the full structural equation model.

The fully estimated structural model was then implemented across groups where the latent constructs and their relationships with other observed variables in the models were assessed. All possible paths were initially freely estimated in the models, and then individual parameters were constrained across groups. When constraining a path to be equal across groups, if there was an increase in chi-square significance and reduced quality in model fit indices, then the path would be freed (Bollen 1989). Because our sample design is nested and uses the maximum likelihood estimator, we used the Satorra–Bentler scaled chi-square to test whether the differences in paths in the models across groups were significantly different (Muthén and Muthén 2009; Satorra and Bentler 2001).

Results

Descriptive Statistics

Table 1 presents the descriptive adjusted means and standard errors for African-Americans and Black Caribbeans separately. Post hoc analyses indicate whether mean and proportion differences were statistically different across groups. African-American and Black Caribbean adolescents report similar levels of stress, adjustment, and depressive symptoms. Among both ethnic groups, parents report similar levels of stress appraisals, mastery, self-esteem, and depressive symptoms. Both groups of parents report, on average, slightly less than 13 years of education. Family structure varies notably, with 48% of African-American parents being married compared to 60% of Black Caribbeans, although the difference is not statistically significant. Approximately 28% of African-American parents are divorced relative to 26% of Black Caribbeans. Finally, more African-American parents report significantly higher rates of never being married relative to Black Caribbeans (24% and 14%, respectively). Black Caribbean adolescents are slightly older and have more females in their sample relative to African-Americans. It is

Table 1 Descriptive statistics by ethnicity

	African-American		Black Caribbean	
	<i>M</i>	SE	<i>M</i>	SE
Adolescent stress appraisal and mental health				
Adolescent stress appraisal	2.51	0.02	2.54	0.16
Adolescent mastery	3.16	0.02	3.17	0.06
Adolescent self-esteem	3.55	0.02	3.56	0.02
Adolescent John Henry	3.40	0.01	3.37	0.10
Adolescent depressive symptoms	0.75	0.02	0.68	0.14
Parent stress appraisal and mental health				
Parent stress appraisal	0.22	0.01	0.20	0.01
Parent mastery	3.32	0.03	3.24	0.13
Parent self-esteem	3.62	0.03	3.54	0.03
Parent depressive symptoms	0.60	0.60	0.61	0.03
Background characteristics				
Adolescent age	14.91	0.07	15.16	0.12
Adolescent sex (female)	0.49 ^a		0.53 ^a	
Parent married or cohabitating	0.48 ^a		0.60 ^a	
Parent divorced/separated	0.28 ^a		0.26 ^a	
Parent never married	0.24 ^a		0.14 ^a	
Parent education	12.43	0.14	12.90	0.71
Poverty Index Score	2.13	0.18	2.20	0.20
<i>N</i>	612		258	

* $p < 0.01$ ^a Indicates a weighted proportion

important to note that, while these two groups share similar characteristics, our goal is to assess the extent to which *processes* differ across family groups as discussed in the multivariate results below.

Multivariate Results

Subsequent analyses were conducted using the multigroup SEM function in *Mplus* to assess the extent to which African-American and Black Caribbean families had different family processes when appraising higher levels of stress. The results reported in Figs. 1 and 2 and Table 2 are based on models constraining background controls to be equal across groups, while allowing all other estimated paths on primary independent variables to be freely estimated. Chi-square difference testing for each of the paths among the primary independent variables compared across groups provided support for allowing the paths to be unconstrained. Specifically, model fit improved as parameters were freed. The figures and tables present the standardized parameter estimates for the measurement models with parent stress

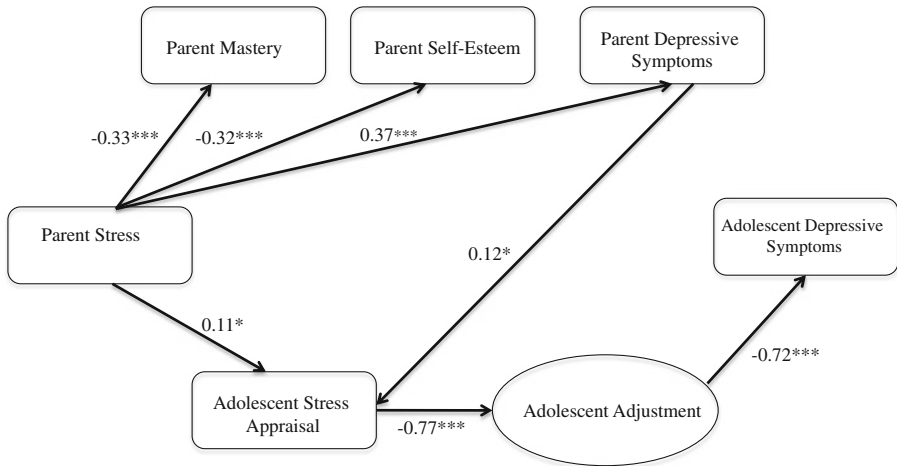


Fig. 1 Estimated model for African Americans. Notes: Only significant paths shown; parent mastery, parent self-esteem, and parent depressive symptoms have correlated paths in these structural equation models

appraisal, parent psychological well-being (i.e., mastery, self-esteem, and depressive symptoms), adolescent stress appraisal and adjustment, and adolescent depressive symptoms for African-Americans and Black Caribbeans. Only statistically significant coefficients for each group were reported in Figs. 1 and 2.

Similarities are demonstrated in parental stress processes estimated in the multigroup SEM results. While parent stress was negatively associated with parent

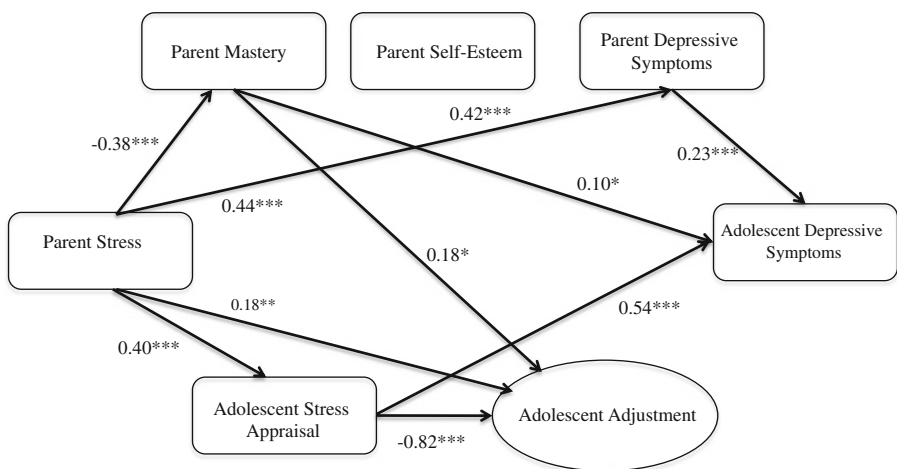


Fig. 2 Estimated measurement model for Black Caribbeans. Notes: Only significant paths shown; note: parent mastery, parent self-esteem, and parent depressive symptoms have correlated paths in these structural equation models

and adolescent outcomes, the way in which it affected families varied by ethnicity. Among African-Americans, there was overall support for the conceptual model where parent stress appraisal was associated with lower parent mastery ($\beta=-0.38$, $p<0.001$), lower self-esteem ($\beta=-0.32$; $p<0.001$), and higher depressive symptoms ($\beta=0.37$; $p<0.001$). While Black Caribbean parents showed similar responses to stress with their stress appraisal being negatively associated with their mastery ($\beta=-0.38$, $p<0.001$) and positively associated depressive symptoms ($\beta=0.42$; $p<0.001$), there was no association between parent stress and self-esteem. Moreover, post hoc chi-square tests reported in Table 3 indicate that the relationships are not significantly different across groups. Differences do emerge, however, when assessing the influence of parent's stress process on their adolescent offspring outcomes.

With regard to direct effects of parent stress appraisal and psychological well-being on adolescent stress, adjustment, and depressive symptoms, parent stress appraisal was associated with adolescent stress appraisal in both groups, although the magnitude was substantially higher (Wald test=8.24; $df=1$; $p<0.001$) for Black Caribbeans ($\beta=0.40$; $p<0.001$) relative to African-Americans ($\beta=0.11$; $p<0.05$). In addition, for Black Caribbeans, parent stress appraisal was directly associated with *higher* levels of adolescent adjustment ($\beta=0.18$, $p<0.01$). The relationships between parents' psychological well-being and adolescent outcomes illustrate notable differences in influences on adolescents across ethnic groups. The pathway through which parent stress appraisal influences adolescent depressive symptoms for Black Caribbeans is parental depressive symptoms, which are positively associated with adolescent depressive symptoms ($\beta=0.23$, $p<0.001$). However, no such relationship exists for African-American adolescents, where in the fully estimated model there is no direct relationship between parent depressive symptoms and adolescent depressive symptoms, a difference that is statistically significant (Wald=13.2, $df=1$, $p<0.001$). Also among African-Americans, parent's depressive symptoms were directly associated with their adolescents' appraisal of stress ($\beta=0.12$, $p<0.05$), although the difference was not statistically significant. African-American adolescent depressive symptoms are influenced through their levels of stress and adjustment. Moreover, while parental mastery was positively associated with adolescent adjustment ($\beta=0.18$, $p<0.001$) and negatively associated with adolescent depressive symptoms ($\beta=0.10$, $p<0.05$) for Black Caribbeans, these relationships were not evident in African-American families.

The individual stress process among adolescents varied significantly by ethnicity. Particularly, although adolescent stress appraisal was associated with their parents stress appraisal, adolescent stress pathways varied significantly. Elevated stress appraisal among both groups of adolescents was negatively associated with adjustment (AA $\beta=-0.77$, $p<0.001$; CB $\beta=-0.82$, $p<0.001$; Wald=4.26, $df=1$, $p<0.05$), but the relationship was significantly higher in magnitude for African-Americans. There was no direct relationship between adolescent stress and adolescent depression for African-Americans; however, the relationship is mitigated by adolescent adjustment for Black Caribbeans ($\beta=0.54$, $p<0.001$). Adjustment was significantly and directly associated with adolescent depressive symptoms for African-Americans ($\beta=-0.79$, $p<0.001$) while this relationship was not present for Black Caribbeans (Wald=6.53, $p<0.01$).

Table 2 Standardized coefficients from multigroup structural equation models for African-Americans and black Caribbean families ($N=870$; AA $n=612$, CB $n=258$)

	African <i>B</i>	Americans SE	Black <i>B</i>	Caribbeans ^b SE
Independent variable to dependent variable paths				
Parent stress to parent mastery	−0.33	0.05***	−0.38	0.10***
Parent stress to parent self-esteem	−0.32	0.05***	−0.46	0.31
Parent stress to parent depressive symptoms	0.37	0.05***	0.42	0.04***
Parent stress to adolescent stress appraisal	0.11	0.05*	0.40	0.04***
Parent stress to adolescent adjustment	−0.04	0.04	0.18	0.06**
Parent stress to adolescent depressive symptoms	0.02	0.05	0.00	0.03
Parent mastery to adolescent stress appraisal	−0.06	0.07	0.05	0.17
Parent mastery to adolescent adjustment	0.09	0.05	0.18	0.06***
Parent mastery to adolescent depressive symptoms	0.04	0.06	0.10	0.04*
Parent self-esteem to adolescent stress appraisal	−0.05	0.06	0.01	0.06
Parent self-esteem to adolescent adjustment	0.06	0.06	0.00	0.08
Parent self-esteem to adolescent depressive symptoms	0.05	0.06	0.05	0.05
Parent depressive symptoms to adolescent stress appraisal	0.12	0.05*	0.11	0.08
Parent depressive symptoms to adolescent adjustment	0.03	0.04	−0.06	0.05
Parent depressive symptoms to adolescent depressive symptoms	−0.01	0.05	0.23	0.05***
Adolescent stress appraisal to adolescent adjustment	−0.77	0.04***	−0.82	0.03***
Adolescent stress appraisal to adolescent depressive symptoms	0.02	0.13	0.54	0.14***
Adolescent adjustment to adolescent depressive symptoms	−0.72	0.13***	−0.12	0.20
Control variables				
Adolescent age to adolescent depressive symptoms	0.06	0.03	0.11	0.04**
Adolescent female to adolescent depressive symptoms	−0.07	0.03*	0.05	0.03
Separated or divorced ^a to adolescent depressive symptoms	−0.07	0.03*	0.01	0.04
Never married ^a to adolescent depressive symptoms	−0.04	0.04	0.04	0.02*
Parental educational attainment to adolescent depressive symptoms	0.01	0.04	0.12	0.07
Poverty Index Score to adolescent depressive symptoms	−0.03	0.02	0.06	0.03

Note: Parent depressive symptoms, mastery, and self-esteem are correlated in multivariate models.; fit indices- CFA=0.95, TLI=0.93, RMSEA=0.04

^a Married is the reference category for marital status variables; fit indices—CFI 0.95, TLI 0.93, RMSEA 0.04

^b Two additional paths were estimated for Black Caribbeans (a) parent mastery on parent education and (b) adolescent stress appraisal on divorce

* $p<0.05$; ** $p<0.01$; *** $p<0.001$

Discussion

The purpose of this study was to assess the extent to which family stress processes vary by ethnicity in the US black population by exploring the influences of perceived parental stressors and parental psychological well-being on adolescent

Table 3 Wald test of parameter constraints comparing African-Americans and black Caribbean

Independent variable to dependent variable paths	Value	df	p value
Parent stress to parent mastery	0.49	1	0.48
Parent stress to parent self-esteem	0.29	1	0.59
Parent stress to parent depressive symptoms	1.62	1	0.20
Parent stress to adolescent stress appraisal	8.24	1	0.00
Parent stress to adolescent adjustment	10.29	1	0.00
Parent stress to adolescent depressive symptoms	0.09	1	0.76
Parent mastery to adolescent stress appraisal	0.37	1	0.55
Parent mastery to adolescent adjustment	2.64	1	0.10
Parent mastery to adolescent depressive symptoms	0.79	1	0.37
Parent self-esteem to adolescent stress appraisal	0.75	1	0.39
Parent self-esteem to adolescent adjustment	0.35	1	0.55
Parent self-esteem to adolescent depressive symptoms	0.00	1	0.97
Parent depressive symptoms to adolescent stress appraisal	0.02	1	0.89
Parent depressive symptoms to adolescent adjustment	1.74	1	0.19
Parent depressive symptoms to adolescent depressive symptoms	13.19	1	0.00
Adolescent stress appraisal to adolescent depressive symptoms	7.21	1	0.01
Adolescent stress appraisal to adolescent adjustment	4.26	1	0.04
Adolescent adjustment to adolescent depressive symptoms	6.53	1	0.01

stress processes and depressive symptoms among African-American and Black Caribbean families. This is the first study to test the family stress model using a nationally representative sample of ethnically diverse black families. Findings indicate that stress processes are associated with psychological adjustment in similar ways for both African-American and Black Caribbean parents. Consistent with previous research (Conger et al. 2002; Gutman et al. 2005; McLoyd 1998), lower stress appraisals are associated with better psychological adjustment and vice versa. Further, elevated parental stressors are directly related to increases in adolescent stress appraisals, which are subsequently associated with declines in adolescent adjustment, while parental mastery enhances adjustment for Black Caribbean adolescents.

Contrary to expectations, more parental stressors are associated with better adjustment for Black Caribbean adolescents, but not for African-American youth. This finding suggests that Black Caribbean adolescents may be able to mobilize coping resources to protect against the negative effects of parental stressors. Prior research demonstrates that coping resources among resilient youth may reflect their higher levels of mastery or self-esteem (Christi-Mizell and Erickson 2007) although, in this study, African-American and Black Caribbeans show similar levels of mastery and self-esteem. Alternatively, these results may reflect their capacity to mobilize other interpersonal relationships. Extended family networks are prevalent among Black Caribbean families, although these networks could not be assessed in this study. Grandparents, other members of the extended network, and even “fictive kin” (i.e., unrelated people who play a parenting role in the adolescent’s life) are often available to support adolescents (Mitchell and Bryan 2007). Studies of

immigrant intergenerational support exchanges show that younger and older generations of immigrant family members receive the greatest support from family compared to the middle or parent generation and that these exchanges are not affected by transnational distance (Jackson et al. 2007). McCubbin et al. (1998) argue that processes through which families of particular ethnicities and cultures appraise stressors are cultivated and transferred intergenerationally. Responses to stress are shaped by family placement in the social structure (i.e., in privileged or marginalized groups) as well as cultivated through the family socialization process. Black Caribbean youth may be socialized to rely on others when parents are facing stress such that they are able to maintain psychological resources that facilitate adjustment.

The positive adjustment of Black Caribbean youth in the face of parental stressors is not associated with depressive symptoms for them. Rather, it is the adolescents' own stress appraisals and the direct effects of parental depressive symptoms that exacerbate their depressive symptoms. Considering that adolescent stress appraisals and parental depressive symptoms are not direct factors for depressive symptoms among African-American youth, cultural differences in ways of coping with stress and inadequate parenting from depressed parents (McLoyd 1990) may leave Black Caribbean youth especially vulnerable to depression in an unsupportive family environment. Georgiades et al. (2007), for example, found that conflict about cultural beliefs and values between parents and children in long-term West Indian immigrant families resulted in hostile parenting and youth adjustment problems. Depressed parents are more likely to engage in harsh punishment and ineffective parenting, especially when conflict exists (Repetti et al. 2002). Inter-generational conflict around cultural values and beliefs may contribute to higher stress appraisals among Black Caribbean adolescents as well as ineffective parenting in depressed parents resulting in increased depression in adolescents. This type of cultural conflict within families may not exist in the same way for African-American adolescents.

As expected, adolescent adjustment mediated the relationship between parental depressive symptoms and their own depressive symptoms, but only among African-American adolescents. Coupled with our finding of no direct influence of parental stressors on adjustment, these results may suggest that African-American youth develop protective coping strategies associated with surviving in hostile environments at a younger age than do Black Caribbean adolescents. Little is known, however, about specific socialization processes that occur within ethnically distinct black families. Issues of cultural adaptation, race-related socialization, as well as gender role socialization all have implications for adolescent adjustment. How socialization occurs in these families if parents are not adequately functioning is an important topic for future research.

The results of this study should be viewed with caution due to several limitations that must be noted. First, the results of this study are based on cross-sectional data; therefore, causal relationships cannot be assumed. It is just as likely that having a depressed adolescent could contribute to parental depression within Black Caribbean families, for example. The full conceptual model for this study is not exhaustive, and all possible paths have not been tested, only those with theoretical relevance for the current study. Nevertheless, longitudinal studies are needed to more fully examine the direction of these relationships. Second, we do not distinguish between the responses of mothers and fathers or by the sex of the adolescents in the study.

Socialization practices within African-American and Black Caribbean families can vary based on both of these factors. The overwhelming majority of parents were mothers (72%); therefore, study findings are most reflective of mothers and their children. There is a critical need to understand father influences on adolescent adaptation within black families as well. Finally, we were not able to conduct separate analysis for different ethnic groups within the Black Caribbean population due to small sample sizes for some ethnic groups.

Although the homogenization of the Black Caribbean population is not ideal, this study provides substantial strength in distinguishing findings between African-American and Black Caribbeans as an initial step in understanding within-group ethnic differences for the black population using a nationally representative data of black families. There is evidence that family processes have important implications for the mental health and well-being of family members particularly when exposed to stressful situations. Given that our study reveals important intraracial differences in the manifestation of the stress process among African-American and Black Caribbean families, more systematic studies are required to understand the potential race/ethnic differences in coping strategies employed in these populations. In order for researchers and policy makers to effectively work to alleviate mental health risks in the black population, more rigorous studies acknowledging and examining variation in the stress process across ethnic groups are required.

Acknowledgments The NSAL was supported by the National Institute of Mental Health (U01-MH57716) with supplemental support from the OBSSR Office of Behavioral and Social Science Research and the National Institute on Drug Abuse at the National Institutes of Health and the University of Michigan, James S. Jackson, Ph.D., PI. We appreciate the assistance provided in all aspects of the NSAL development by the Program for Research on Black Americans faculty and staff. This paper is part of a larger study funded by the National Institute of Child Health and Human Development (K01 HD 064537). All opinions and errors are the sole responsibility of the authors and do not necessarily reflect those of either the helpful commentators or funding agencies.

References

- Allen, L., & Mitchell, C. (1998). Racial and ethnic differences in patterns of problematic and adaptive development: An epidemiologic review. In V. C. McLoyd & L. Steinberg (Eds.), *Studying minority adolescents: Conceptual, methodological, and theoretical issues*. Mahwah: Lawrence Erlbaum.
- Baptiste, D.A., Hardy, K.V., & Lewis, L. (1997). Clinical practice with Caribbean immigrant families in the United States: The intersection of emigration, immigration, culture, and race. In J.L. Roopnarine & J. Brown (Eds.), *Caribbean families: Diversity among ethnic groups*. Greenwich, CT: Ablex Publishing.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Broman, C. L. (2001). Work stress in the family life of African Americans. *Journal of Black Studies*, 31, 835–846.
- Christi-Mizell, C. A., & Erickson, R. J. (2007). Mothers and mastery: The consequences of perceived neighborhood disorder. *Social Psychology Quarterly*, 70, 340–365.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385–396.
- Conger, R., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology*, 38, 179–193.
- Crawford, T. N., Cohen, P., Midlarsky, E., & Brook, J. S. (2001). Internalizing symptoms in adolescents: Gender differences in vulnerability to parental distress and discord. *Journal of Research on Adolescence*, 11, 95–118.

- Georgiades, K., Boyle, M. H., & Duku, E. (2007). Contextual influences on children's mental health and school performance: The moderating effects of family immigrant status. *Child Development*, 78, 1572–1591.
- Goosby, B. J. (2007). Poverty duration, maternal psychological resources, and adolescent socioemotional outcomes. *Journal of Family Issues*, 28, 1113–1134.
- Gutman, L. M., McLoyd, V. C., & Tokoyawa, T. (2005). Financial strain, neighborhood stress, parenting behaviors, and adolescent adjustment in urban African American families. *Journal of Research on Adolescence*, 15, 425–449.
- Hammen, C., Brennan, P. A., & Shih, J. H. (2004). Family discord and stress predictors of depression and other disorders in adolescent children of depressed and nondepressed women. *Journal of the Academy of Child and Adolescent*, 43, 994–1002.
- Hayduk, L. A. (1987). *Structural equation modeling with LISREL: Essentials and advances*. Baltimore: Johns Hopkins University Press.
- Jackson, J. S., Torres, M., Caldwell, C., Neighbors, H., et al. (2004). The National Survey of American Life: A study of racial, ethnic and cultural influences on mental disorders and mental health. *International Journal of Methods in Psychiatric Research*, 13, 196–207.
- Jackson, J. S., Forsythe-Brown, I., & Govia, I. O. (2007). Age cohort, ancestry, and immigrant generation influences in family relationships and psychological well-being among Black Caribbean family members. *Journal of Social Issues*, 63, 729–743.
- James, S. (1994). John Henryism and the health of African-Americans. *Culture, Medicine and Psychiatry*, 18, 163–182.
- Kasinitz, P., Battle, J., & Miyares, I. (2001). Fade to Black? The children of West Indian immigrants in southern Florida. In R. G. Rumbaut & A. Portes (Eds.), *Ethnicities: Children of immigrants in America*. Berkeley: University of California Press.
- Knight, G. P., Virdin, L. M., & Roosa, M. (1994). Socialization and family correlates of mental health outcomes among Hispanic and Anglo American children: Consideration of cross-ethnic scalar equivalence. *Child Development*, 65, 212–224.
- Leo-Rhynie, E. A. (1997). Class, race, and gender issues in child rearing in the Caribbean. In J. L. Roopnarine & J. Brown (Eds.), *Caribbean families: Diversity among ethnic groups*. Greenwich: Ablex.
- Lincoln, K. D., Chatters, L. M., & Taylor, R. J. (2005). Social support, traumatic events, and depressive symptoms among African Americans. *Journal of Marriage and Family*, 67, 754–766.
- Lincoln, K. D., Chatters, L. M., Taylor, R. J., & Jackson, J. S. (2007). Profiles of depressive symptoms among African Americans and Caribbean Blacks. *Social Science & Medicine*, 65, 200–213.
- McCubbin, H. I., Thompson, A. I., Thompson, E. A., et al. (1998). Ethnicity, schema, and coherence: Appraisal processes for families in crisis. In H. I. McCubbin, E. A. Thompson, A. I. Thompson, & J. E. Fromer (Eds.), *Stress, coping, and health in families: Sense of coherence and resiliency*. Thousand Oaks: Sage.
- McLeod, J. D., & Owens, T. J. (2004). Psychological well-being in early life course: Variations by socioeconomic status, gender, and race/ethnicity. *Social Psychology Quarterly*, 67, 257–278.
- McLoyd, V. C. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting and socioeconomic development. *Child Development*, 61, 311–346.
- McLoyd, V. C. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, 53, 185–204.
- Miranda, J., Siddique, J., Belin, T. R., & Kohn-Wood, L. P. (2005). Depression prevalence in disadvantaged young black women: African and Caribbean immigrants compared to US-born African Americans. *Social Psychiatry and Psychiatric Epidemiology*, 40, 253–258.
- Mitchell, N. A., & Bryan, J. A. (2007). School–family–community partnerships: Strategies for school counselors working with Caribbean immigrant families. *Professional School Counseling*, 10, 399–409.
- Murray, V. M., Brown, P. A., Brody, G. H., et al. (2001). Racial discrimination as a moderator of the links among stress, maternal psychological functioning, and family relationships. *Journal of Marriage and Family*, 63, 915–926.
- Muthén, L. K., & Muthén, B. O. (2009). *Mplus user's guide* (5th ed.). Los Angeles: Muthén & Muthén. Addendum.
- Pearlin, L. I. (1989). The sociological study of stress. *Journal of Health and Social Behavior*, 30, 241–256.
- Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*, 19, 2–21.
- Pearlin, L. I., Menaghan, E. G., Lieberman, M. A., & Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior*, 22, 337–356.
- Radloff, L. S. (1977). The CES-D Scale. *Applied Psychological Measurement*, 3, 385–401.
- Repetti, R. L., Taylor, S. E., & Seeman, T. E. (2002). Risky families: Family social environments and the mental and physical health of offspring. *Psychological Bulletin*, 128, 330–366.

- Roberts, R. E., & Sobhan, M. (1992). Symptoms of depression in adolescence: A comparison of Anglo, African, and Hispanic Americans. *Journal of Youth and Adolescence*, 21, 639–762.
- Roberts, R. E., Roberts, C. R., & Richard Chen, Y. (1997). Ethnocultural differences in prevalence of adolescent depression. *American Journal of Community Psychology*, 25, 95–110.
- Rong, X. L., & Brown, F. (2003). Socialization, culture, and identities of black immigrant children: What educators need to know and do. *Education and Urban Society*, 34, 247–273.
- Roopnarine, J. L., & Shin, M. (2003). Caribbean immigrants from English-speaking countries: Sociohistorical forces, migratory patterns, and psychological issues in family functioning. In L. L. Adler & U. P. Gielen (Eds.), *Migration: Immigration and emigration in international perspective*. Westport: Praeger.
- Rosenberg, M. (1979). *Conceiving the Self*. Malabar, FL: Robert E. Krieger.
- Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). Global self-esteem and specific self-esteem: Different concepts, different outcomes. *American Sociological Review*, 60, 141–156.
- Satorra, A., & Bentler, P. A. (2001). A scaled difference in chi-square test statistic for moment structure analysis. *Psychometrika*, 66, 507–514.
- Stepick, A., Stepick, C. D., Eugene, E., et al. (2001). Shifting identities and intergenerational conflict: Growing up Haitian in Miami. In R. G. Rumbaut & A. Portes (Eds.), *Ethnicities: Children of immigrants in America*. Berkeley: University of California Press.
- Sternthal, M. J., Slopen, N., & Williams, D. R. (2011). Racial disparities in health: How much does stress really matter? *Du Bois Review*, 8, 95–113.
- U.S. Census Bureau. (2005). *Census 2000 special reports, we the people: Blacks in the United States*. Washington, DC: US Census Bureau.
- U.S. Census Bureau. (2007). *The American Community—Blacks: 2004*. Washington, DC: U.S. Department of Commerce.
- Waters, M. C. (1997). Immigrant families at risk: Factors that undermine chances for success. In A. Booth (Ed.), *Immigration and the family: Research and policy on U.S. immigrants*. Mahwah: Lawrence Erlbaum.
- Waters, M. C. (1999). *Black identities: West Indian immigrant dreams and American realities*. New York: Sage.
- Wikrama, K. A. S., Lorenz, F. O., & Conger, R. D. (1997). Parental support and adolescent health status: A latent growth analysis. *Journal of Health and Social Behavior*, 38, 149–163.
- Williams, D. R., Gonzalez, H. M., Neighbors, H., Nesse, R., et al. (2007). Prevalence and distribution of major depressive disorder in African Americans, Caribbean Blacks, and non-Hispanic Whites: Results from the National Survey of American Life. *Archives of General Psychiatry*, 64, 305–315.
- Williams, D. R., Haile, R., Gonzalez, H. M., Neighbors, H., et al. (2007). The mental health of Black Caribbean immigrants: Results from the National Survey of American Life. *American Journal of Public Health*, 97, 52–59.

Copyright of Journal of African American Studies is the property of Springer Science & Business Media B.V. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.