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Variations in Social Support and Mental Health Among Black Women by Socioeconomic Status

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VARIATIONS IN SOCIAL SUPPORT AND MENTAL HEALTH AMONG BLACK

WOMEN BY SOCIOECONOMIC STATUS

by

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A considerable body of research focuses on the mental health of black women with low socioeconomic status. Social scientists have noted that women in low socioeconomic status groups often utilize social networks to provide protection and survival in dense and depressed communities. Still, some social scientists also suggest that the bounded solidarity of kinship networks decreases chances for women to pursue opportunities for economic mobility by creating stressful and time consuming obligations for reciprocity. Though many qualitative and community quantitative studies have been conducted regarding social support and survival among low income women, few quantitative studies have addressed variation in these networks by socioeconomic status and their association with psychological distress. This research paper seeks to expound upon the empirical research on social support among black women by focusing on its relationship to mental health. Using data from the National Survey of American Life (NSAL), a nationally representative survey designed to contextually explore mental disorders and psychological distress of African and Caribbean Black Americans, I investigate the associations between socioeconomic status, various means of social support, and mental health for African American, Afro-Caribbean, and white women in the United States.

DEDICATION

This document is presented in memory of my sister, Linda Johnson, and my parents,

Florentene and Alonzia Johnson.

It is also presented in honor of my son, Justin Curtis Johnson, and my brother, Julius

Maurice Johnson.

In good times and bad, family is everything.

Much research has been dedicated to the mental health of black women in low socioeconomic status (SES) groups. Black women in low SES groups experience more stressful life events, such as unemployment, poor physical health, problems with romantic relationships (Edin and Kefalas 2005), difficulties securing child care (Press et al 2006), and difficult parent-child relationships (McLoyd et al 1994) than women in higher status groups. As a result, these women often utilize networks of family, friends, and church members to pool material and emotional resources that protect members of the network (Macinko and Starfield 2001; Dominguez and Watkins 2003). Each member of such a group is expected to reciprocate for the help she receives by providing services to another member in the future (Portes 1998; Dominguez and Watkins 2003; Sarkisian and Gerstel 2004). Social theorists hypothesize that the expectation of reciprocity, as well as the maintenance of relations between group members, may hinder individual economic mobility and freedom, thereby further contributing to the psychological distress of group members (Bourdieu 1986; Portes 1998; Macinko and Starfield 2001).

Researchers find that African American women experience psychological distress at twice the rate of African American men (Williams et al 2007). However, very few researchers have investigated distress with regards to the heterogeneity within the black female population in America. African American women may utilize means of coping which are different from other groups of black women. For instance, the utilization of social support may be different among groups when guarding against mental illness that accompanies the scarcity of economic resources.

This research expounds upon the research on mental health among low income populations through the examination of race and ethnicity differences in the relationships

between socioeconomic status, stressful life events, and social support among women through the use of nationally representative data. Using data from the National Survey of American Life (NSAL), I investigate the associations between socioeconomic status, life stressors, social support, and mental health for Afro-Caribbean and African American adult females by asking the following questions: 1) Is there a direct association between socioeconomic status and psychological distress for females? 2) Is this relationship mediated by stressful life events? 3) Is the association between socioeconomic status and mental health further mediated by various means of social support, such as support reciprocity, emotional support or negative interaction? 4) Are these associations further moderated by race/ethnicity?

Literature Review

Black Females, Socioeconomic Status, and Depressive Symptoms

While whites experience a higher prevalence of Major Depressive Disorder (MDD) than African Americans (Riolo et al 2005; Williams et al 2007), African Americans experience a higher prevalence of Dysthymic Disorder (Riolo et al 2005), a less severe yet more chronic form of depression. African Americans who do experience MDD experience it more severely (Lewis et al 2006; Williams et al 2007). George and Lynch (2003) also found that stress exposure increased steadily with age among blacks, thereby increasing depressive symptoms, while stress and depressive symptoms waned during middle ages and increased again for whites. Williams et al (2007) also found significant diversity within the black population regarding gender and depression.

African American women experience a lifetime prevalence of MDD at twice the rate of African American men. However, no significant difference was found between MDD prevalence among Afro-Caribbean men and women. Black and Hispanic women were also found to have a higher prevalence of depressive symptoms than white or Asian women in America, again, mainly due to socioeconomic factors (Bromberger et al 2004).

Among the major factors associated with depressive symptoms and disorders, poverty and low socioeconomic status are most prominent (Gibbs and Fuery 1994; Link and Phelan 1995; Nolen-Hoeksema et al 1999; Muntaner et al 2007). Women in general experience lower socioeconomic status than men, as well as more psychological distress associated with such low status (Nolen-Hoeksema 1999). In addition, research provides a growing body of evidence that continued racial gaps in SES (education, income, occupational prestige, and wealth) provide a large contribution to the reason for health disparities in the United States. For instance, as Black women achieve less education and experience more unemployment, more single parenthood and more neighborhood crime than white women (Wilson 1987; Belle 1990; Gibbs and Fuery 1994), black women are subsequently at greater risk for prolonged or re-occurring incidences of mental distress associated with these experiences.

Still, the heterogeneity of the black population with regards to socioeconomic status and its association with mental health has been neglected until recently. Current research reveals that more black immigrants reside in the United States than American Indians, Cuban Americans, Chinese, or Japanese. In addition, Afro-Caribbeans are the largest subgroup of black immigrants in the U.S. (Williams et al 2007). Few researchers

have closely examined the differences between immigrant and native black American

females with regards to socioeconomic status and mental health.

Because of immigration regulations, black immigrants to the United States

generally have more education and higher incomes than native African Americans, as

well as lower rates of mental illness (Williams et al 2007). Caribbean American black

women report lower rates of MDD than native black women (Miranda et al 2005).

Though these findings offer some explanation for different mental health statuses among

black ethnicities, very little is known about how different ethnicities respond to stressors

specifically associated with their economic status. Researchers have instead concentrated

on the socioeconomic status and stressors of black women without specifying ethnic

variations.

Socioeconomic Status and Stressors in the Black Community

As more black women gained middle class and higher status in the last forty

years, their mental health adapted to their newfound socioeconomic status. For some, the

stress of living in neighborhoods with fewer services and high crime (Williams 2001)

was replaced with or added to the stress of higher workplace and/or residential

discrimination as access to higher status became available. In addition, as black women

gained more education and status than black men (Day and Bauman 2000), the number of

single mothers remained high in the black community (Staples 1985; Higginbotham and

Weber 1992; Edin and Kefalas 2005). Though many black females believe in traditional

standards of a stable relationship and family, they find a lack of available mates of quality

(Staples 1985). For these women, the first quality in a potential mate would be gainful

and steady employment. However, the vestiges of systematic structural discrimination leave many black men without such employment, and certainly without income that is necessary for supporting a family (Staples 1985; Wilson 1987). Even without the pre-requisite of employment, the lack of marriageable black men remains due to high incarceration and homicide rates (Wilson 1987).

In 2008, the U.S. Census Bureau reports, black males over the age of 18 who were never married, widowed, or divorced totaled 6.6 million. The number of black women in the same categories totaled 9.2 million (U.S. Census Bureau 2010). This leaves close to 3.3 million black women without potential black mates – that is, if all things were equal and each of the available men was actually desirable as a potential mate. Consequently, black women are much less likely to be encouraged to pursue marriage as their primary life goal than white women (Edin and Kefalas 2005). Middle-class black women are expected to be self-sufficient and successful (Higginbotham and Weber 1992). As such, a major factor of depression for black women is the presence of life stressors, such as discrimination, difficult or lack of romantic relationships, and role strain, as mediators in the relationship between socioeconomic status and mental health.

Psychological Resources: Mastery and Self Esteem

In the midst of difficult circumstances, some people may be able to utilize coping resources which help to alleviate depressive symptoms. Self esteem and mastery are coping mechanisms that help individuals to guard against depression during challenging times by maintaining a positive self perception. Mastery is defined as a sense of control over immediate environmental factors, or over circumstances which affect one's life

(Pearlin et al 1981). Self esteem is the perception of self worth (Pearlin et al 1981). These self perceptions serve as psychological resources that can protect persons from depressive symptoms during periods of distress.

Both self esteem and mastery have been found to increase when social support is provided for an individual (Lincoln et al 2005). Social network members, such as family, friends and community members, can provide social support in the form of positive interaction and appraisal that guard against a negative self image and feelings of worthlessness. Social support from others can also help individuals to redirect the negative impact from stressors by helping to evaluate the situation as one that is not beyond the individual's control and help provide positive solutions to the problem. This process further increases the individual's estimation of herself, thereby increasing her mastery and self esteem.

Acute and Chronic Life Stressors

A stressor is defined as any environmental, social or otherwise internal factor which affects an individual's mood to the extent that requires some change in behavioral patterns (Thoits 1995). Researchers who have investigated the interplay of race/ethnicity and gender in psychological distress have found significant associations between both acute and chronic stressors and the mental health of black women. Stressful life events have been found to disrupt an individual's sense of self, thereby negatively influencing mental health outcomes (Lincoln et al 2005). The presence of acute stressors - such as rape or assault, family death, or other short-term stressors – may have greater depressive influence among those who have not previously encountered similar stressors (Turner

and Noh 1988, Avison and Turner 1988). However, chronic stressors, such as prolonged
unemployment or financial worries, are noted as most potent in relation to psychological
distress (Aneshensel 1992; Turner et al 1995). The difference in the two types of
stressors lies in the duration of exposure.

African American and other minority women are more prone to distress
associated with economic hardship than white women (Eckenrode 1984; Aneshensel
1992). Such stressors associated with economic hardship include neighborhood violence
in economically deprived neighborhoods (Wight et al 2009), problems with children
associated with single-motherhood, and difficulty with personal relationships (Avison
and Turner 1988; Edin and Kefalas 2005). Persistent poverty poses a distinctive threat to
the emotional well-being of African American women, as black women are ten times
more likely to experience poverty than white women (Belle 1990). However, research
also shows evidence of a higher prevalence of discrimination as education levels increase
(Kessler 1999). This finding may indicate an additional level of distress which increases
with economic mobility, even while stressors brought on by poverty decrease. In any
case, many black women find they need the support of family and friends to increase
their chances for financial independence.

As black families support these women on their journeys to financial
independence, black women are expected to stay away from men who do not present
themselves as financial equals, so that the relationship does not result in further detriment
to the entire family. In light of the fact that black women achieve economic and
educational success at higher rates than black men (Day and Bauman 2000), this may
result in percentages of unmarried black middle class women that rival those of poor

black women. As a result, upward mobility for these women comes with bouts of isolation at work and loneliness at home (Benjamin 1982), which can increase the prevalence of depressive symptoms among black middle class women. Researchers have not yet found whether this is also true for black Caribbean women. To help alleviate these symptoms, many women turn to networks of friends, family and church members for emotional support.

Black Women's Social Support Networks

Four types of social support are generally utilized by those women seeking protection from stressors that accompany poverty among black Americans. These are instrumental, or material support; emotional support, informational support and appraisal (Berkman and Glass 2000; Gorman and Sivaganesan 2007). Instrumental support involves the exchange of material goods and services that help women care for their families, such as child care, transportation, small loans, or housing in times of relocation or eviction (Stack 1974; Domingues and Watkins 2003; Sarkisian and Gerstel 2004). Emotional support involves talking with others about problems or spending time with family and friends as a way to temporarily remove oneself from the stressful situation. However, research reveals that this type of support does not reduce stress (Wethering and Kessler 1986; Gary et al 1992; Lincoln et al 2003) and may actually increase depressive symptoms (Mirowsky and Ross 1989).

Informational support usually occurs in the form of conversations and contacts which help in the acquisition of employment or promotions at work. In close-knit, poverty-stricken support groups, the information conveyed through dense networks

becomes redundant, severely limiting the effectiveness of informational support for employment assistance (Macinko and Starfield 2001; Smith 2005). However, if lower SES members have family or network members with higher socioeconomic status, those higher status members may be held responsible for making sure family members have information which leads to gainful employment, as well as material support in the form of money (Higginbotham and Weber 1992; Heflin and Patillo 2002; Sarkisian and Gerstel 2004). This responsibility of providing such support is seen as reciprocation for the support received as network members supported the higher status individual to achieve her goals.

Appraisal is another form of vital support that is not discussed much in the research. As network members seek economic and social mobility, they may find the need for approval by family and friends to help with self esteem and a sense of control. In addition to family and friends, church participation, in some instances, may provide appraisal and support for attempting to conquer life's challenges against the odds of less education or social and cultural capital which accompany lower socioeconomic status. However, the negative interaction, or disapproval of network members may ensure the opposite effect (Ellison et al 2009), especially if network or family members do not agree with the person's means of achievement (Higginbotham and Weber 1992) or of her consideration of other network members along the way.

The possible hindrance of support reciprocation on well-being has been mentioned in several studies on survival among lower income families (Stack 1974; Uehara 1990; Domingues and Watkins 2003). The reciprocation of support takes considerable time away from the individual's efforts to improve her socioeconomic status

by thwarting her own efforts, for instance, to form relationships with those in higher status groups or attend to and concentrate on educational mobility (Granovetter 1973, 1983; Macinko and Starfield 2001; Domingues and Watkins 2003). Perceptions of an imbalance in support reciprocation may further exacerbate psychological distress (Vaananen et al 2008), through the presence of in-group control mechanisms, such as the relinquishment of further support, which may be more evident in low SES or minority kinship groups (Macinko and Starfield 2001; Gray and Keith 2003).

The expectation of support reciprocity is maintained through bounded solidarity, a control mechanism found in kinship and other community groups (Portes 1998). Bounded solidarity is an informal or covert way of controlling members of a group "binding" members to agreements of reciprocity. Membership in such a group is dependent upon each member sharing any and all resources at her disposal, whenever any other member is in need. Bounded solidarity is a means of ensuring that all members of the group are taken care of and have adequate protection (Dominguez and Watkins 2003). However, family, friends', and church members' requests for help with transportation, loans, child care, or a listening ear tend to multiply and in some instances, may remain unanswered as material resources of the group decrease (Nelson 2000).

Each member in kinship network is responsible for making any sacrifice necessary to make sure that available resources are distributed throughout the group as needed. In return for such support, members who receive support are expected to reciprocate in some manner at a later date. This act is termed balanced reciprocity (Sarkisian and Gerstel 2004). The main goal is assurance that each member has an equal amount of resources and protection that are available. The expectation or perception of

available support is paramount for participation in such a group. Therefore, difficulties in maintaining the system arise when members receive insufficient support or no support at all when needed (Meadows 2009). The maintenance of bounded solidarity assures that no member gets further ahead than any other member. Thus, all advance at the same pace, or none advance at all.

Very little research has focused on support reciprocation and its positive or negative effects on black women's depressive symptomatology. In addition, though the body of literature on socioeconomic status, social and material support, and kinship has continued to grow, much of the literature is based on community, patient, or non-US samples. There is a dire lack of nationally representative studies that relate these variables to the mental health of African American and black Caribbean-American women.

Theoretical Frameworks

The Mediator Effect Model of Social Interaction

The mediator effect model of social interaction posits that "the impact of a stressor is mediated by social interactions with others; these positive and negative social interactions, in turn, either increase or decrease one's vulnerability to psychological distress" (Lincoln et al 2003: 392). Social support matters for mental health. Human beings are a very social species, and as such, our social interactions play a large role in our general well-being (Portes 1998). The idea that one can share ideas, hopes and dreams with similar others, or with those who would serve as mentors, is pivotal in the attainment of mastery or a sense of control over one's own environment. Similarly, when

material resources are scarce, the provision of shared resources from others who understand can ease the tensions that accompany economic hardship. But if the material help is accompanied by harsh criticism or a condescending, blame-ridden attitude, the receiver of such help is more likely to perceive the material help received as a judgment against her own weakness or inability to take care of her own responsibilities, rather than as a true "helping hand" (Lincoln et al 2003).   By proposing the mediator effect model of social interaction, I hypothesize that emotional support and negative interaction by family, friends and church will mediate the effects of lower socioeconomic status, chronic stressors, economic hardship and internal psychological resources on depressive symptomatology. These relationships will also be dependent upon the expectation of reciprocity in social interactions. These expectations can be further explained through the theory on Failed Reciprocity in Social Exchange.

Failed Reciprocity in Social Exchange

Theorists have hypothesized that the bounded solidarity within social networks, namely kinship networks, may hinder individual freedom and economic mobility (Bourdieu 1986; Portes 1998) through expectations of material support reciprocity. In situations of economic hardship, families, neighbors and community members may find relief by consolidating resources for the benefit of the entire group. Networks are formed which can organize material resources such as child care, transportation and food supplies, as well as emotional support for parenting and interpersonal relationships. Such emotional support includes advice and consolation during times of extreme stress and hardship like bereavement or legal troubles (Domingues and Watkins 2003; Sarkisian and Gerstel 2004).   Since providing such support can be difficult and costly, such provision

is predicated with an expectation of reciprocity, which, when followed, ensures that everyone in the network is taken care of in times of need. When reciprocity is not evident among members, a sense of instability permeates the relationship and weakens the individual's confidence in herself and in the group (Weiner 1992; Siegrist 2009).

The effort-reward imbalance model (Siegrist 2009) represents the principal of social reciprocity that is left unfulfilled when one person in the relationship or network fails to equally provide some measure of support that has been previously provided to her. This models suggests that failed reciprocity is strongly associated with feeling cheated or poorly regarded (Siegrist 2009:312; Väänänen et al 2008). In other words, one who receives more than she gives may often feel guilt, shame or low self esteem associated with the perception that she cannot control her own circumstances or take care of her own family. By contrast, giving more than one receives may reliance on family support more stressful. Both situations would indicate a decrease in positive self evaluation and an increase in hopelessness or resentment, which increases depressive symptoms (Väänänen et al 2008).

Based on the existing literature and theory, I proposed the following hypotheses:

H_1. African American, Afro-Caribbean and Caucasian women who experience lower socioeconomic status will report more symptoms of depression than women from higher socioeconomic statuses.

H_2. Psychological resources of self esteem and mastery will serve as protective mechanisms that will offset or mediate the effects of socioeconomic status on depressive symptoms.

H₃. Acute stressors and economic hardship will further exacerbate depressive

symptoms, even after taking into account self esteem and mastery.

H₄. Those who perceive an unequal exchange, or lack of reciprocity in

material support between themselves and family, friends, or church, as well as

those who perceive more negative interaction from family and church, will

report more symptoms of depression.

H₅. The relationships between social support, stressors, psychological

resources, and depressive symptoms will be significantly different for African

American, Afro-Caribbean, and white women.

These relationships are shown in Figure 1. As modeled, I expect to find a direct

association between socioeconomic status and depressive symptoms for women. I also

expect that psychological resources, stressors, and social support will each serve as

successive mediators this relationship between SES and CES-D depressive symptoms.

Finally, I expect that race/ethnicity will moderate all of these associations.

Data

The National Survey of American Life: Coping with Stress in the 21ˢᵗ Century

(NSAL) is a nationally representative survey conducted by researchers in the Program for

Research on Black Americans at the University of Michigan's Institute for Social

Research, between February 2001 and March 2003. The study was designed to be a

contextual exploration of mental disorders and psychological distress of Americans of

African and Caribbean descent, through manifestations of various "stressors, risk and

resilient factors, and coping resources, among national adult and adolescent samples"

(Jackson et al 2004). Face-to-face interviews were given to 6,199 adults ages 18 and older, based on a multi-state probability design. The sample included 3,570 Black Americans, 1,623 black respondents of immediate Caribbean descent, and 1006 non-Hispanic whites. In addition, a national sample was obtained of adolescents, aged 13-17, who were attached to households of the previously interviewed adults in the survey. The adolescent sample is not used in this study. The NSAL sample was designed to draw considerably large numbers of black respondents so that within-group variation could be considered. It is also the first study to include a nationally representative sample of Afro-Caribbeans. The sample was designed to have at least twice as many African Americans and Afro-Caribbeans as whites, so that within-race variation could be maximized and still retain an adequate reference group. Examinations of the data have found no loss of power in comparisons (Jackson et al 2004).

Since the NSAL involves a multi-staged, complex survey design, analyses of the data for this study were conducted using United States population weights based on the March 2002 demographic supplement of the Current Population Survey (Alegria et al 2008). Sampling of respondents involved nationally representative samples of households, along with additional sampling in core census areas where there was a high density of the populations of interest, namely African Americans and Afro-Caribbeans (Heeringa et al 2004). Therefore, analysis using clustered, stratified population weights allowed for probability sampling inference to the general population in the United States. All analyses were conducted using linear regression in the Stata software package, version 11.1 (Statacorp LP, College Station, TX). Weights were applied using the "svy" command for analysis of complex sample survey data, as follows:

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. svyset SECLUST [pweight=NSALWTPN], strata(SESTRAT)
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(Heeringa et al 2007).

Measures

Dependent Variable

Depressive symptoms were assessed using nine items from the Center for Epidemiological Studies Depression Scale (CES-D). Respondents were given nine statements to rate themselves on in the past week, such as "I felt depressed," "I felt that I just couldn't get going" or "I felt that I was just as good as others" (see Appendix A). Responses were provided based on a five-point Likert scale, where 0 = rarely or never, 1 = some of the time, 2 = occasionally, and 3 = most or all of the time. Responses were coded so that higher values represented negative affect (depressed, sad, people dislike me) and low values represented positive affect (happy, hopeful about the future). All item scores were combined to form a scale of depressive symptoms ($\alpha = .73$). Respondents who failed to respond to more than 2 items on the scale were dropped from the sample.

Independent Variables

Socioeconomic Status. *Poverty Index* is a scaled item devised in the Collaborative Psychiatric Epidemiology Surveys (CPES), 2001-2003, based on the U.S. Census Bureau's indications of poverty thresholds in the United States, used to calculate the number of people in poverty in the nation (U.S. Census Bureau 2010). The calculated measure includes a Census 2001 income-to-needs ratio, which includes household

income and compares these to the national poverty threshold for the same year (household income/poverty threshold) (Alegria et al 2008). The poverty threshold includes family size and ages of family members (U.S. Census Bureau 2010). Scores range from 0 – 17, with higher scores indicating higher household incomes to accommodate needs according to family size. *Education* is an 11-item scale indicating the last completed year of education for the respondent. Items range from 4 to 17 or more and indicated the respondent's report of completed years of education. Employment is measured by creating binary measures of a single response item, in which the respondent was to indicate his or her work status. The binary measures created were *Employed*, *Unemployed* and *Not in the Labor Force*, where "1" equaled the title indicator and "0" equaled other responses. The variable showing those currently employed was used as the reference variable.

Race/Ethnicity is composed of three dichotomous variables in which the respondent indicated whether they were African American, Afro-Caribbean, or non-Hispanic white. Responses were "1" for yes and "0" for no. Respondents who indicated a race other than these three were dropped from the sample.

Psychological Resources. *Self Esteem* was measured using the ten-item Rosenberg scale (Rosenberg 1965), which asks the respondent to indicate her agreement with items that measure her value of and regard for herself, such as "I am a person of worth," "I have a number of good qualities," or "I am a failure" (see Appendix B). Item responses were presented on a Likert scale form where 1 = strongly agree, 2 = somewhat agree, 3 = somewhat disagree, and 4 = strongly disagree. Negative statements were reverse coded so that higher numbered responses indicated higher self esteem. All items

were combined to form a scale where summary scores ranged from 12-40. The scale

showed acceptable internal reliability (α =.77)

Mastery was measured in the model as a scale of seven items (Pearlin and

Schooler 1978) indicating the respondent's sense of control of his environment, such as

"I feel pushed around," "There is no way to solve my problems," "I feel helpless" (see

Appendix C).   Responses were arranged on a Likert scale where 1 = strongly agree, 2 =

somewhat agree, 3 = somewhat disagree, and 4 = strongly disagree. Negative statements

were reverse coded so that higher numerical values on the Likert scale represented higher

mastery scores. All items were combined to form a scale where scores ranged from 7-28

and the scale showed acceptable internal reliability (α = .73).

Stressors. *Acute Stressors* is a summary scale variable devised of responses to

nine items that asked whether or not respondents had experienced various stressors

during the past month, such as race problems, police harassment, victim of a crime,

problems with children, relationship problems, etc. Responses were 1=yes or 0=no. The

scale represents the total number of acute stressors to which the respondent has been

exposed (α = .54). *Chronic Economic Hardship* is a scaled variable developed from three

items asking the respondent about her worry in the past year over survival issues, such as

whether there was enough to eat in her household, whether there was enough income to

pay bills (α = .67).

Social Support Measures. *Material Support Reciprocity* is indicated by nine

binary variables devised to represent respondents' perceptions of support from family,

friends and church. Three variables were devised to discern perceptions of whether

respondents thought they 1) Gave More to Family than they Received, 2) Family

Reciprocal Relationship, or 3) Received More from Family than they Gave. Another

three variables showed perceptions of whether respondents 1) Gave More to Friends than

Received, 2) Friend Reciprocal Relationship, or 3) Received More from Friends than

Gave. The last three variables showed perceptions of whether respondents 1) Gave More

to Church than Received, 2) Church Reciprocal Relationship, or 3) Received More from

Church than Gave.

The group of variables regarding family was created using items which asked two

questions: "How often does your family help you out? Would you say very often (coded

as 1), fairly often (2), not too often (coded as 3), never (coded as 4), or that you never

needed help (coded as 5). Respondents were also asked "How often do you help your

family out?" Responses were coded the same as above. Responses were re-coded to

reflect higher numbers as more help received or given.

A separate scale was created for each group wherein the responses for receiving

help were subtracted from the responses for giving help. The scale reflected item scores

from -5 to 5, where negative scores reflected perceptions of giving more help than

received, and positive scores reflect perceptions of receiving more help than given.

Scores of zero (0) reflected perceptions of a reciprocal relationship. A binary variable

was then created, where all negative scores were collapsed to "1", and zero or positive

scores were collapsed to "0" to reflect "Given more to Family than Received." Another

binary variable was created, where zero scores reflected "1" for "Family Reciprocal

Relationship" and negative or positive scores were collapsed to "0." A third binary

variable was created, where all positive scores were collapsed to 1 and zero or negative

scores collapsed to 0 to reflect "Received more from Family than Received." This procedure was repeated for relationships with friends and church. For analysis, the variables reflecting the Reciprocal Relationships were used as the reference variables.

Emotional Support is indicated by four categorical measures indicating whether the respondents receive positive or negative support from family and church members. Family Emotional Support and Church Emotional Support were measured using two mean-scaled variables that indicated the amount of emotional support received from family and church, such whether they feel loved, listened to, or that their family/church members express concern for their well-being. Family Negative Interaction and Church Negative Interaction were measured using two mean-scaled variables that indicated the amount of negative interaction received from family and church members, such as whether family or church members criticized the respondent too much, took advantage of her, or made too many demands of her.

Controls. Age and marital status were included as controls. Researchers find that these factors serve as predictors of depression in women. Age was indicated by the respondent in years (18 years of age and above), and an additional variable of the squared Age (Age^2) was also created to account for a nonlinear relationship in the model. Marital status was divided into four binary variables, Married, Cohabiting, Divorced/Widowed/Separated, or Never Married, where "1" equals the title response and "0" equals all others.

Data Analysis

I employed linear regression analysis in Stata 11.1 to test the relationships shown in the Conceptual Model, Figure 1. This approach was used to identify direct and indirect pathways leading to symptoms of depression and to test the hypotheses of interest. Analysis of the sample that included both men and women took place first, so that gender distinctions could be specified with regards to depressive symptoms and pathways. Then women's pathways were analyzed separately to further test theories and analyze pathways for depressive symptomatology for women. Lastly, women's pathways were analyzed by race/ethnicity to analyze differences in pathways for African American, Afro-Caribbean and white women. I then performed z-tests between coefficients that revealed a significant relationship for each group to discover significant differences between groups for the same associations.

RESULTS

I first analyzed the total sample of men and women and found a significant difference in symptoms and pathways of depression for males and females. I also found differences between race/ethnic groups. These results can be found in Appendices E-G[1]. This preliminary analysis indicated that a separate investigation of the female sample was warranted for testing the hypotheses regarding differences among pathways for depression for ethnic groups of adult women.

Descriptive Statistics for Female Sample

Table 1 presents descriptive characteristics for females in the sample. The presence of depressive symptoms is shown to be significantly different between groups. Non-Hispanic white women report higher depressive symptoms (M = 6.56) than African

American (M = 4.70) or Afro-Caribbean women (M = 3.70). There are also significant differences in the poverty index scores, education, and unemployment rates. Non-Hispanic white females have higher poverty index scores, more education, and lower rates of unemployment than the other two groups. In fact, white women have significantly higher depressive symptoms even though they also report significantly higher education (See Graph 1). These initial findings partially refute the first hypothesis of the study (H_1) which predicted that lower socioeconomic status groups would report more symptoms of depression than those in the higher status group. Afro-Caribbean women rate between the other two groups on all significant socioeconomic measures. However, there are no significant differences on average scores between groups on psychological resources, and average scores of stressors do not vary significantly by race/ethnicity.

A lower proportion of African American women (9 %) and Afro-Caribbean women (9%) perceived themselves to have given more to family than they received, compared to non-Hispanic white (14%) women, χ^2 (2, N = 3660) = 28.47, $p < 0.01$. Significantly more African American women (37%) perceived themselves receiving more from family members than they gave; thirty-six percent of Afro Caribbean women and thirty-one percent of white women perceived the same, χ^2 (2, N = 3660) = 16.73, $p < 0.01$. Twenty-six percent of black women (African American and Afro-Caribbean) say they received more from their friends than they gave, while nineteen percent of non-Hispanic white women said the same, χ^2 (2, N = 3602) = 23.16, $p < 0.01$. Also, significantly more African American and Afro-Caribbean women perceived themselves receiving more from the church than they received (38% and 39%, respectively),

compared to non-Hispanic white women (30%), χ^2 (2, N = 3139) = 21.52, $p < 0.01$.

Though more than half of all groups considered themselves to be in reciprocal

relationships with their churches, significantly more white women (59%) perceived

themselves to be in reciprocal church relationships than African Americans or Afro-

Caribbeans (50% and 52%, respectively), χ^2 (2, N = 3139) = 29.09, $p < 0.01$.

Two control variables revealed significant differences between groups regarding

marital status. A larger proportion of white females were married (42%) than Afro-

Caribbeans (30%) or African Americans (27%), χ^2 (2, N = 3694) = 82.28, $p < 0.05$. Also,

a significantly larger proportion of African American and Afro-Caribbean females had

never been married (33% and 31%, respectively) compared to non-Hispanic white

women (20%), χ^2 (2, N = 3687) = 62.50, $p < 0.01$.

Multivariate Analyses

Table 2 shows results for OLS regressions of independent variables on depressive

symptoms for females in the sample. Poverty Index scores and unemployment are

initially significantly associated with depressive symptoms. For each unit increase in the

poverty index score, women can expect a .20 unit decrease in depressive symptoms ($p <$

0.01). Also, unemployment is associated with a 1.53 unit increase in depressive

symptoms ($p < 0.001$). These findings support the first hypothesis (H_1) that lower

socioeconomic status would be associated with an increase in depressive symptoms for

all women in the sample. However, these initial effects change when race and ethnicity

are introduced to the equation (model 2).

Afro-Caribbeans report 3.25 units less ($p < 0.001$) and African Americans report 2.52 units less ($p<0.001$) depressive symptoms than non-Hispanic whites. In addition, race/ethnicity is a suppression of the association of poverty index with depression (from β = -.20, $p<0.01$ to β = -.28 units, $p<0.001$). The addition of race/ethnicity also leads to an increase in the association of unemployment with depression (from β = 1.53, $p<0.001$ to β = 1.60, $p<0.001$).

The addition of psychological resources (model 3) yields more information about the association with depressive symptoms for women. Those with more self esteem report fewer depressive symptoms, so that for each unit increase in self esteem, depressive symptoms decline by .33 units ($p<0.001$). Each additional unit of mastery accounts for a .35 unit decrease in depressive symptoms ($p<0.001$). Self esteem and mastery both mediate the effects of socioeconomic status on depressive symptoms. With the addition of these two variables, the effect of the poverty index on depressive symptoms increases substantially (from β = -.28, $p<0.001$ to β = -.18, $p<0.05$), signaling a mediation effect. However, the additions mediate the effect of unemployment on depression, as unemployment is no longer a significant associate of depressive symptoms. These findings do partially substantiate the second hypothesis (H_2), stating that internal psychological resources would serve as protective mechanisms that offset or mediate the effects of socioeconomic status on depressive symptoms.

 As acute and chronic stressors are introduced in the equation (model 4), both acute stressors (β=.65, $p<0.001$) and economic hardship (β=.17, $p<0.05$) are associated with an increase in depressive symptoms for females. This supports the third hypothesis (H_3), which predicted that both types of stressors would be associated with an

exacerbation in depressive symptoms. However, only two of the material support measures (model 5) are associated with the report of depressive symptoms. Perceiving oneself to receive more from family than one gives is associated with a .39 unit increase in depressive symptoms, and giving more to the church than receiving is associated with a .91 unit increase in depressive symptoms. The addition of material support also mediates the effect of acute stressors on depression, but has a small suppression affect on the association between economic hardship and depressive symptoms.

Once emotional support is added (model 6), negative emotional interaction from family members is significantly associated with an increase the report of depressive symptoms by .49 units, ($p<0.05$). The addition of emotional support also significantly mediates the positive effect of giving more to the church, receiving more from the family, both acute and chronic stressors, and race/ethnicity. The addition of emotional support decreases the negative association of psychological resources on depression, suggesting that respondents somehow feel less competent and in control of their circumstances when they initiate emotional support. The findings on material and emotional support partially support the fourth hypothesis (H_4) which states that those women perceiving an unequal exchange in material or emotional support will report more depressive symptoms.

Race/Ethnicity and Pathways to Depressive Symptoms

To further explain the potential racial/ethnic differences in pathways of depression, I reproduced the model on depressive symptoms for each racial/ethnic group separately. I found that different pathways exist across race/ethnicity with regards to stressors and social support. Additionally, I tested the coefficients for each independent

variable using *z*-test calculations between coefficients $\left(z = \dfrac{b_1 - b_2}{\sqrt{SEb_1^2 + SEb_2^2}} \right)$ to find the

significant differences between racial/ethnic groups (Paternoster et al 1998). The results

are shown in Table 3.

For African American women, unemployment is associated with a .86 unit

increase in depressive symptoms. Afro-Caribbean women and white women do not report

a significant association between unemployment and depressive symptoms. However, z-

test calculations reveal that there is a significant 2.72 unit difference in African American

and Caribbean women's associations between unemployment and depressive symptoms.

Unemployment is the only socioeconomic variable that significantly affects depressive

symptoms for any of the three groups.

Mastery and self esteem serve as protective factors against depressive symptoms

for all three groups of women. Each unit increase in self esteem is associated with a .28

unit decrease ($p<0.001$) in depressive symptoms for African American women, a .21 unit

decrease ($p<0.01$) for Afro-Caribbean women, and a .26 unit decrease ($p<0.01$) for white

women. For each unit increase in mastery, African American women reported a .21 unit

decrease ($p<0.001$), Afro-Caribbean women reported a .23 unit decrease ($p<0.01$), and

white women reported a .33 unit decrease ($p<0.01$) in depressive symptoms. There is no

significant difference in racial ethnic coefficients for associations between self esteem or

mastery with depressive symptoms.

Acute and chronic stressors also play a pronounced role in the relationship

between race/ethnicity and depression. The highest association between acute stressors

and depressive symptoms is reported for African American women, as additional acute stressor is associated with a .68 unit increase in depressive symptoms ($p<0.01$). For Afro-Caribbean women, each additional acute stressor is associated with a .36 unit increase in depressive symptoms ($p<0.01$), though no signficant association is evident for white women. A significant difference in this association is also evident between groups. The association between acute stressors and depressive symptoms is .32 units higher for African American women than Afro-Caribbean women, and .50 units higher than white women. There is no difference between Afro-Caribbean and white women in the association between acute stressors and depressive symptoms.

Economic hardship presents a significant association with depressive symptoms for African American women only, and is associated with a .30 unit increase in depressive symptoms ($p<0.001$). The findings regarding acute stressors and economic hardship support the hypothesis (H_3) that these two variables would reveal a strong association with depressive symptoms even after self esteem and mastery are taken into account. These findings also partially support the hypothesis (H_5) that pathways to depressive symptoms are significantly different for each group of black women, as both acute and chronic stressors operate differently for different groups. Material and emotional support measures also play different roles in this relationship.

The material support relationships that black women have with the church differs by ethnicity. For Afro-Caribbean women, the perception of giving more to the church than received is associated with a 1.41 unit increase in depressive symptoms ($p<0.05$). This relationship is not significant for African American or white women. Also, no other

material support reciprocity measures show a significant association with depressive symptoms.

Emotional support shows a sharper difference in the effect on depressive symptoms by ethnicity. For Afro-Caribbean women, emotional support from family members serves as a protective factor against depressive symptoms, as this type of support is associated with a 1.16 unit decrease in depressive symptoms ($p<0.001$). This association is not significant for the other groups. Instead, negative interaction from family members plays a more important role for African American women. Family negative interaction is association with a .37 unit increase ($p<0.05$) in depressive symptoms for African American women, while this measure shows no significant association for Afro-Caribbean or white women. Afro-Caribbean women report an association between family emotional support and depressive symptoms that is 1.04 units higher than that of African American women. However, no significant difference is shown between African American and white women, or between Afro-Caribbean and white women. These findings on material and emotional support further support the hypotheses (H_4 and H_5) that pathways to depression regarding support relationships differ among groups of black women, and further reflect the heterogeneity in these groups.

DISCUSSION/CONCLUSION

This study investigated the associations of socioeconomic status, stressors, social support and psychological resources with depressive symtoms. I took special account of respondents' perceptions of their supportive relationships with family, friends, and church members, while evaluating their perceptions of reciprocity within material

support relationships, and the amount of emotional support and negative interaction in those same relationships. Previous literature shows that African Americans report fewer than or the same number of depressive symptoms as whites, but that when African Americans are diagnosed with depressive disorders they tend to suffer longer from the symptoms and comorbidity of conditions associated with the disorder (Williams et al 2007). Although chronicity cannot be measured with this cross-sectional data, these results show fewer depressive symptoms among both African American and Afro-Caribbean Americans, both overall and among females.

Socioeconomic status is indeed found to be associated with depressive symptoms in this study, in agreement with my first hypothesis (H_1). However, the association of one SES variable, unemployment, is much higher for African American women than for Afro-Caribbean women. All of the SES associations significantly decrease as psychological resources and stressors are considered. As previous literature has shown, both self esteem and mastery provide significant protection against depressive symptoms among women. The findings in this study agreed with previous literature.

Acute stressors occuring in the last month are reported to have a larger impact on depressive symptoms than chronic economic hardship. Both types of stressors do exacerbate depressive symptoms, even when accounting for the protective factors of psychological resources. This finding is opposite of the literature which states that acute stressors would have less of an impact on depressive symptoms than chronic stressors (Aneshensel 1992; Turner et al 1995). However, the presence of acute stressors is associated with an even more pronounced association for African American women than the other two groups. Accordingly, this finding substantiates the hypothesis that acute

stressors and economic hardship would exacerbate depressive symptoms (H_3) and partially substantiates the hypothesis that relationships among variables would be different for each group of women (H_5). Still, relationships with family, friends, and church members significantly alter the effects of stressors in different ways.

The findings of such pronounced differences of interaction effects between black women warrants further discussion. Since the heterogeneity among black women has not been discussed often in the literature, researchers should continue to parse out the many other variants that may occur among minority groups. Further exploration could expand the way we conceptualize stress and hardship, the way we categorize groups, and could further enlighten researchers on differences in group interactions. These interactions with friends, family and community may be a product of or a precursor to socioeconomic circumstances which could in turn affect psychological processes.

When Siegrist (2009) discussed the impact of unfair exchange, he suggested that those who receive more from family than they give may feel somehow inadequate, noting that self worth and esteem may decrease because of economic hardship and the need for asking for more than one can reciprocate. I found support for this theory by noting that those who found themselves in this situation did perceive a loss in self esteem, even as their sense of mastery increased, and this perception was associated with an increase in depressive symptoms. In addition, those who perceived giving more to the church, particularly, Afro-Caribbean women, reported an increase in depressive symptoms. African American women in the sample who perceived critical remarks and other negative interaction from family also reported fewer depressive symptoms, as well as a decrease in the associations between psychological resources and depression. Further

study should ascertain more definitive pathways of social support on depressive

symptoms.

This study contained some limitations which inhibited complete investigation.

This study involved cross-sectional data, as longitudinal data with the same groups and

items are not available at this time. Therefore, the study could not investigate the

changing effects of socioeconomic status and means of support on depressive symptoms

over time. As mentioned previously, longitudinal data would also allow for the

investigation of the chronicity of depressive symptoms.

Internal consistency and reliability of the acute stressors scale raises some

concern. The low alpha coefficienct for acute stressors ($\alpha = .54$) may indicate low

variance among items (DeVellis 2003). Indeed, no inter-item variance in this scale

reached a score above .015. Carol Aneshensel (1992) regards this issue as a problem of

disporportionally represented events which affect some groups more than others.

Although many data sets other than the NSAL have included stressful events that were

more representative among whites than other groups, the NSAL may contain stressors

more representative among blacks. The result is still a pool of events which is not

representative of different groups. The low alpha coefficient indicates that more analysis

could draw out the differences among groups for these particular stressors. Future

research, then, could include these stressors in a more widely recognized group of

stressors, so that a scale could be devised which constitutes a representative sample of the

acute stressors occuring in various races/ethnicities, not just those on which the study is

concentrated.

This analysis revealed that acute stressors had more of a significant association with depressive symptoms for women than chronic strain, represented here as economic hardship. This finding is opposite of analyses performed previously (i.e., Avison and Turner 1988). However, the finding of my analysis should be considered in light of the high correlation between the acute stressors scale and the economic hardship scale in this study ($R = .40$). Although there is analytical presedence for separating acute from chronic stressors by asking respondents which occurred in the last month (acute) versus those that have occurred in the last twelve months (chronic), one must recognize the natural occurance of economic hardship that is experienced if a respondent answers affirmatively to some of the items in the acute stressors scale, such as having health problems, money problems or job problems. The structure of the items on acute stressors do not specify when the problems began, only that the problems existed in the last month. Therefore, some of these problems could have been experienced over an extended period of time and resulted in chronic economic hardship. Analytically, the result would be a bias toward zero for the economic hardship estimates in the regression models.

Emotional support items were not available to assess relationships with friends. In addition, two means of support, appraisal and informational support, were unavailable in the data set used in this study. An important avenus for fuuture research is to further investigate and compile data sets that can entail all four means of support and produce explanations for their associations with depressive symptoms among various ethnicities.

This data set is one of the first to provide means for investigating the heterogeneity of the black population in America. However, I would further like to study the effect of immigration status, which was not possible in the current study. Future

research should further investigate racial/ethnic differences in psychological pathways, especially involving their associations with socioeconomic resources and social support. Unraveling these processes may allow for more understanding and cooperation between minority women and service agencies or other representatives in helping capacities.

This study reveals important differences in pathways between socioeconomic status, stressors, various means of social support and mental health of three groups of women in the United States. It is the first to investigate the differences in these particular associations between different groups of women and the first to explore the heterogeneity of black women in this regard. This study makes a contribution to the literature by exploring such heterogeneity, and by encouraging future research which continues to parse out structural and mental health differences among black ethnic groups.

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FIGURE 1. Conceptual Model
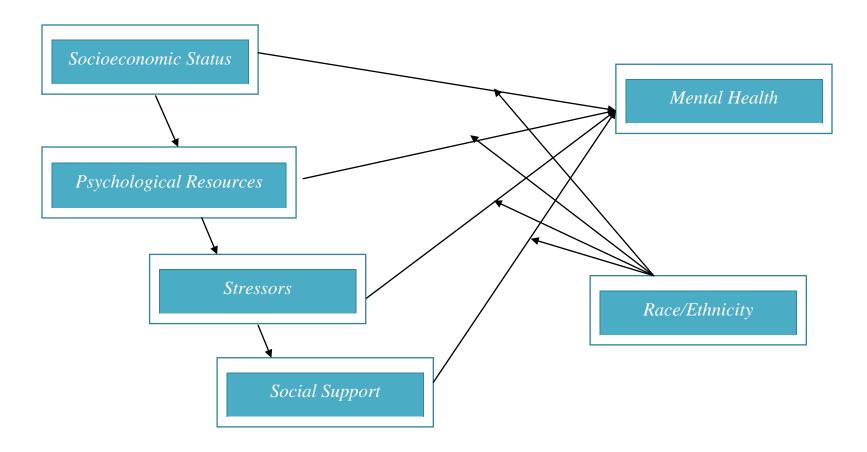
TABLE 1. Descriptive Statistics for Females (Weighted Means or Proportions, and Standard Deviations)

Variable	Range	African-Americans (N = 2189)		Afro-Caribbeans (N = 842)		Whites (N = 358)		p value	X²
		M	SD	M	SD	M	SD		
CESD	0 - 27	4.70	0.15	3.70	0.27	6.56	0.27	0.000	17.93
SOCIOECONOMIC STATUS									
Poverty Index	0 - 17	2.30	0.09	2.94	0.30	3.43	0.26	0.000	110.10
Education (in years)	4 - 17	12.46	0.10	12.86	0.23	13.63	0.27	0.000	16.19
Employed	0 - 1	0.64	--	0.74	--	0.67	--	0.168	7.30
Unemployed	0 - 1	0.11	--	0.10	--	0.06	--	0.039	22.12
Not In Labor Force	0 - 1	0.25	--	0.17	--	0.27	--	0.316	5.61
INTERNAL RESOURCES									
Self Esteem	12 - 40	36.09	0.14	36.88	0.16	35.47	0.31	0.003	11.72
Mastery	7 - 28	23.13	0.12	23.21	0.40	23.13	0.24	0.823	0.39
STRESSORS									
Acute Stressors	0 - 9	1.95	0.05	1.57	0.07	1.53	0.07	0.000	48.78
Economic Hardship	3 - 12	5.27	0.06	5.43	0.20	5.24	0.17	0.261	2.68
MATERIAL SUPPORT RECIPROCITY									
Gave more to Family than Received	0 - 1	0.09	--	0.09	--	0.14	--	0.007	34.47
Received More from Family than Gave	0 - 1	0.37	--	0.36	--	0.31	--	0.009	16.73
Family Reciprocal Relationship	0 - 1	0.54	--	0.55	--	0.55	--	0.839	0.289
Gave more to Friends than Received	0 - 1	0.05	--	0.08	--	0.07	--	0.503	4.68
Received More from Friends than Gave	0 - 1	0.26	--	0.26	--	0.20	--	0.010	23.16
Friends Reciprocal Relationship	0 - 1	0.68	--	0.66	--	0.74	--	0.152	12.64
Gave More to Church than Received	0 - 1	0.12	--	0.09	--	0.11	--	0.217	8.45
Received More from Church than Gave	0 - 1	0.38	--	0.39	--	0.30	--	0.004	21.52
Church Reciprocal Relationship	0 - 1	0.50	--	0.52	--	0.59	--	0.002	29.09
EMOTIONAL SUPPORT									
Emotional Support from Family	1 - 4	3.28	0.02	3.36	0.05	3.41	0.05	0.507	1.36
Negative Interaction from Family	1 - 4	1.90	0.02	1.87	0.05	1.77	0.03	0.000	19.27
Emotional Support from Church	1 - 4	2.98	0.03	2.73	0.06	2.96	0.06	0.057	5.72
Negative Interaction from Church	1 - 4	1.48	0.01	1.42	0.04	1.37	0.03	0.000	38.90
CONTROLS									
Age	18 - 94	42.18	0.57	40.83	0.73	43.75	2.27	0.003	11.59
Married	0 - 1	0.27	--	0.30	--	0.42	--	0.001	80.45
Cohabiting	0 - 1	0.08	--	0.11	--	0.06	--	0.307	5.68
Divorced, Widowed, or Separated	0 - 1	0.32	--	0.28	--	0.31	--	0.752	0.73
Never Married	0 - 1	0.33	--	0.31	--	0.20	--	0.018	68.88

Statistics are weighted according to U.S. population.

GRAPH 1. Depressive Symptoms of Females by Race/Ethnicity and Education.
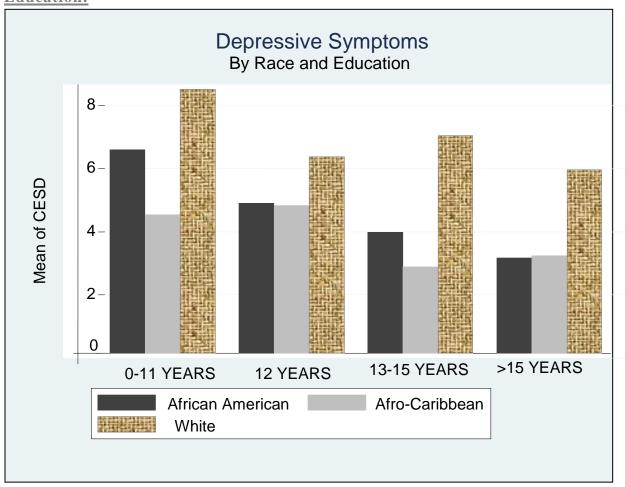
TABLE 2. Socioeconomic Status, Life Stressors, and Support Mechanisms Regressed on Female Depressive Symptomatology

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
SOCIOECONOMIC STATUS							
Poverty Index	-0.200**	-0.275***	-0.175*	-0.082	-0.075	-0.09	-0.061
	[0.070]	[0.070]	[0.067]	[0.061]	[0.060]	[0.058]	[0.069]
Education (years)	-0.151	-0.242**	-0.093	-0.092	-0.027	-0.041	-0.058
	[0.086]	[0.075]	[0.071]	[0.075]	[0.067]	[0.067]	[0.070]
Unemployed£	1.526***	1.604***	0.509	0.215	0.318	0.435	0.454
	[0.380]	[0.426]	[0.405]	[0.421]	[0.431]	[0.442]	[0.432]
Not in Labor Force£	0.059	-0.155	-0.671	-0.217	-0.126	-0.106	0.273
	[0.521]	[0.484]	[0.370]	[0.341]	[0.300]	[0.295]	[0.304]
RACE/ETHNICITY¥							
Afro-Caribbean American		-3.249***	-2.562***	-2.619***	-2.742***	-2.839***	-2.821***
		[0.321]	[0.384]	[0.366]	[0.367]	[0.362]	[0.349]
African American		-2.524***	-1.960***	-2.141***	-2.230***	-2.345***	-2.322***
		[0.282]	[0.367]	[0.325]	[0.299]	[0.307]	[0.295]
PSYCHOLOGICAL RESOURCES							
Self Esteem			-0.330***	-0.280***	-0.288***	-0.273***	-0.277***
			[0.037]	[0.037]	[0.041]	[0.041]	[0.039]
Mastery			-0.352***	-0.282***	-0.262***	-0.250***	-0.269***
			[0.044]	[0.046]	[0.048]	[0.049]	[0.052]
STRESSORS							
Acute Stressors				0.645***	0.616***	0.537***	0.505***
				[0.080]	[0.083]	[0.081]	[0.084]
Economic Hardship				0.171*	0.223**	0.203*	0.202*
				[0.074]	[0.082]	[0.080]	[0.078]
MATERIAL SUPPORT RECIPROCITY ξ							
Gave More to Family					0.161	0.204	0.074
					[0.428]	[0.431]	[0.421]
Received More from Family					0.392*	0.215	0.395*
					[0.195]	[0.183]	[0.185]
Gave More to Friends					0.205	0.321	0.449
					[0.370]	[0.380]	[0.352]
Received More from Friends					0.138	0.039	0.056
					[0.211]	[0.231]	[0.207]
Gave More to Church					0.917*	0.910*	0.886*
					[0.391]	[0.381]	[0.380]
Received More from Church					-0.059	-0.046	0.072
					[0.318]	[0.311]	[0.313]

Standard errors in brackets. Statistics are weighted according to U.S. population.

* p<0.05, ** p<0.01, *** p<0.001. £ Reference category is Employed. ¥ Reference category is White.

ξ Reference category is Reciprocal Relationship. Ŧ Reference category is Married.

TABLE 2 (continued). Socioeconomic Status, Life Stressors, and Support Mechanisms Regressed on Female Depressive Symptomatology

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
EMOTIONAL SUPPORT							
Family Emotional Support						-0.242	-0.25
						[0.144]	[0.143]
Family Negative Interaction						0.494**	0.381*
						[0.171]	[0.160]
Church Emotional Support						-0.107	-0.124
						[0.165]	[0.160]
Church Negative Interaction						0.423	0.462
						[0.338]	[0.334]
CONTROLS							
Age							-0.073
							[0.047]
Age2							0.000
							[0.000]
Cohabiting							-0.415
							[0.645]
Divorced/Separated/Widowed							-0.088
							[0.247]
Never Married							-0.227
							[0.287]
Intercept	7.795***	10.742***	28.404***	22.678***	21.099***	20.463***	23.598***
	[1.006]	[0.811]	[1.219]	[1.488]	[1.736]	[2.144]	[1.932]
N	3386	3386	3342	3317	2771	2764	2764
R^2	0.036	0.099	0.353	0.397	0.404	0.417	0.424
F	13.291	54.547	78.49	65.935	40.785	48.382	68.545
df	4	6	8	10	16	20	25

Standard errors in brackets. Statistics are weighted according to U.S. population.

* $p<0.05$, ** $p<0.01$, *** $p<0.001$. £ Reference category is Employed.   ¥ Reference category is White.

ξ Reference category is Reciprocal Relationship. T Reference category is Married.

**TABLE 3. Socioeconomic Status, Life Stressors, and Support Mechanisms Regressed on Female Depressive Symptomatology for Each Group**

	African American		Afro-Caribbean		White		Difference (p<0.05)
SOCIOECONOMIC STATUS							
Poverty Index	-0.013		0.027		-0.177		
	(0.045)		(0.049)		(0.105)		
Education	-0.092		-0.070		-0.028		
	(0.046)		(0.083)		(0.125)		
Unemployed	0.860	*	-1.861		-0.327		A$_c$
	(0.421)		(1.247)		(1.135)		
Not Working	-0.017		-0.187		-0.325		
	(0.241)		(0.311)		(0.538)		
PSYCHOLOGICAL RESOURCES							
Self Esteem	-0.281	***	-0.205	**	-0.262	**	
	(0.041)		(0.061)		(0.082)		
Mastery	-0.210	***	-0.226	**	-0.326	**	
	(0.038)		(0.061)		(0.100)		
STRESSORS							
Acute Stressors	0.678	***	0.358	**	0.176		A$_c$, A$_w$
	(0.094)		(0.113)		(0.191)		
Economic Hardship	0.291	***	0.233	*	0.146		
	(0.062)		(0.106)		(0.168)		
MATERIAL SUPPORT RECIPROCITY$^{\xi}$							
Gave More to Family	0.225		0.636		0.138		
	(0.361)		(0.676)		(0.718)		
Received More from Family	0.132		-0.031		0.446		
	(0.219)		(0.397)		(0.340)		
Gave More to Friends	0.128		0.636		1.062		
	(0.380)		(0.778)		(0.889)		
Received More from Friends	0.068		0.670		-0.304		
	(0.255)		(0.607)		(0.637)		
Gave More to Church	0.708		1.406	*	0.794		
	(0.493)		(0.673)		(0.645)		
Received More from Church	-0.133		-0.090		0.212		
	(0.265)		(0.434)		(0.669)		

Standard errors in parentheses.   * p<0.05, **p<0.01, *p<0.001

A$_c$ = African American - Caribbean Difference

A$_w$ = African American-White Difference

C$_w$ = Caribbean-White Difference

TABLE 3 (continued). Socioeconomic Status, Life Stressors, and Support Mechanisms Regressed on Female Depressive Symptomatology for Each Group

	African American		Afro-Caribbean		White		Difference (p<0.05)
EMOTIONAL SUPPORT							
Family Emotional Support	-0.119		-1.156	***	-0.441		A_c
	(0.158)		(0.307)		(0.292)		
Family Negative Interaction	0.368	*	0.606		0.760		
	(0.180)		(0.357)		(0.363)		
Church Emotional Support	0.025		0.050		-0.366		
	(0.166)		(0.335)		(0.351)		
Church Negative Interaction	0.122		0.241		1.287		
	(0.263)		(0.317)		(0.884)		
Intercept	17.132	***	17.43	***	22.613	***	
	(1.896)		(2.340)		(5.110)		
N	1810		688		266		
R2	0.41		0.365		0.407		
F	40.335		36.34		.		
df	18		18		15		

Standard errors in parentheses.   * p<0.05, **p<0.01, *p<0.001

A_c = African American - Caribbean Difference

A_w = African American-White Difference

C_w = Caribbean-White Difference

APPENDIX A. Center for Epidemiological Studies – Depression Scale (CES-D) Items

Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way in the last week.

#	Item	Rarely of none of the time (Less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amont of time (3-4 days)	Most or all of the time (5-7 days)
1.0	I had trouble keeping my mind on what I was doing.				
2.0	I felt depressed.				
3.0	I felt that people were unfriendly towards me.				
4.0	My sleep was restless.				
5.0	I was happy.				
6.0	I enjoyed life.				
7.0	I had crying spells.				
8.0	I felt that people dislike me.				
9.0	I could not get "going."				

(Radloff 1977)

APPENDIX B.   Rosenberg Self Esteem Scale Items

#	Item	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
1.0	I am person of worth, at least on an equal plane with others.				
2.0	I feel that I have a number of good qualities.				
3.0	All in all, I am inclined to feel that I am a failure.				
4.0	I am able to do things as well as most other people.				
5.0	I feel I do not have much to be proud of.				
6.0	I take a positive attitude toward myself.				
7.0	On the whole, I am satisfied with myself.				
8.0	I wish I could have more respect for myself.				
9.0	I certainly feel useless at times.				
10.0	At times I think I am no good at all.				

(Rosenberg, 1965)

APPENDIX C. Pearlin-Schooler Mastery Scale Items

How strongly do you agree or disagree with the following statements?

#	Item	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
1	There is really no way to solve some of my problems.				
2	Sometimes I feel that I am being "pushed around" in life.				
3	I have little control over what happens to me.				
4	I can do just about anything I set my mind to do.				
5	I feel helpless dealing with the problems of life.				
6	What happens to me in the future mostly depends on me.				
7	There is little I can do to change many of the important things in my life.				

(Pearlin and Schooler 1978)

APPENDIX D. Acute Stressors Scale Items

In the past month, have you had:

#	Item	Yes	No
1	Health problems?		
2	Money problems?		
3	Job problems?		
4	Problems with your children?		
5	Family/marriage problems?		
6	You or a family member been a victim of crime?		
7	Police problems?		
8	Problems in your love life?		
9	You or a family member had race problems?		
10	Gambling problems?		

APPENDIX E. Economic Hardship Scale Items

Item	Not At All Difficult	Not Very Difficult	Somewhat Difficult	Very Difficult	Extremely Difficult
How difficult is it for [(you/your family)] to meet the monthly payments on your [(family's)] bills?					

APPENDIX E. Descriptive Statistics for Total Sample (Weighted Means or Proportions, and Standard Deviations)

Variable	Range	African-Americans (N = 3392)		Afro-Caribbeans (N = 1386)		Whites (N = 571)		p value	X^2
		M	SD	M	SD	M	SD		
CESD	0 - 27	4.25	0.14	3.95	0.43	6.32	0.38	0.000	25.06
SOCIOECONOMIC STATUS									
Poverty Index	0 - 17	2.65	0.09	3.30	0.15	3.73	0.27	0.000	89.33
Education (in years)	4 - 17	12.47	--	12.82	0.11	13.51	0.26	0.000	24.08
Employed	0 - 1	0.67	--	0.77	--	0.70	--	0.168	11.47
Unemployed	0 - 1	0.10	--	0.08	--	0.05	--	0.001	47.03
Not In Labor Force	0 - 1	0.23	--	0.14	--	0.25	--	0.176	13.76
INTERNAL RESOURCES									
Self Esteem	12 - 40	36.19	0.12	36.32	0.27	35.39	0.23	0.005	10.61
Mastery	7 - 28	23.35	0.10	22.53	0.53	22.98	0.15	0.860	0.30
STRESSORS									
Acute Stressors	0 - 9	1.75	0.05	1.60	0.11	1.38	0.07	0.000	36.17
Economic Hardship	3 - 12	5.07	0.06	5.31	0.18	4.91	0.09	0.679	0.78
MATERIAL SUPPORT RECIPROCITY									
Gave more to Family than Received	0 - 1	0.08	--	0.10	--	0.13	--	0.001	34.93
Received More from Family than Gave	0 - 1	0.38	--	0.38	--	0.33	--	0.157	15.34
Family Reciprocal Relationship	0 - 1	0.54	--	0.52	--	0.54	--	0.854	0.36
Gave more to Friends than Received	0 - 1	0.05	--	0.08	--	0.05	--	0.614	3.70
Received More from Friends than Gave	0 - 1	0.25	--	0.25	--	0.20	--	0.048	17.99
Friends Reciprocal Relationship	0 - 1	0.70	--	0.68	--	0.74	--	0.048	13.61
Gave More to Church than Received	0 - 1	0.35	--	0.44	--	0.40	--	0.072	14.57
Received More from Church than Gave	0 - 1	0.46	--	0.39	--	0.45	--	0.443	3.32
Church Reciprocal Relationship	0 - 1	0.19	--	0.17	--	0.15	--	0.114	10.49
EMOTIONAL SUPPORT									
Emotional Support from Family	1 - 4	3.23	0.02	3.27	0.04	3.31	0.05	0.371	1.98
Negative interaction from Family	1 - 4	1.85	0.02	1.90	0.05	1.71	0.04	0.000	31.98
Emotional Support from Church	1 - 4	2.96	0.02	2.73	0.03	2.89	0.07	0.151	3.78
Negative Interaction from Church	1 - 4	1.51	0.01	1.44	0.02	1.39	0.03	0.000	33.32
CONTROLS									
Age	18 - 94	41.99	0.52	40.51	0.77	45.49	1.79	0.013	8.65
Sex (1 = Female)	0 - 1	0.56	--	0.50	--	0.58	--	0.098	5.57
Married	0 - 1	0.33	--	0.38	--	0.46	--	0.014	85.35
Cohabiting	0 - 1	0.09	--	0.12	--	0.06	--	0.055	29.47
Divorced, Widowed, or Separated	0 - 1	0.27	--	0.19	--	0.27	--	0.033	21.84
Never Married	0 - 1	0.32	--	0.31	--	0.21	--	0.021	117.56

Statistics are weighted according to U.S. population.

APPENDIX F. Socioeconomic Status, Life Stressors, and Support Mechanisms Regressed on Depressive Symptomatology for Total Sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SOCIOECONOMIC STATUS								
Poverty Index	-0.165**	-0.232***	-0.214***	-0.117**	-0.044	-0.058	-0.066	-0.036
	[0.052]	[0.050]	[0.055]	[0.043]	[0.041]	[0.044]	[0.042]	[0.046]
Education (years)	-0.079	-0.157*	-0.167**	-0.030	-0.047	-0.049	-0.064	-0.090
	[0.064]	[0.062]	[0.060]	[0.052]	[0.054]	[0.048]	[0.048]	[0.051]
Unemployed£	1.571***	1.774***	1.733***	0.797*	0.362	0.165	0.246	0.259
	[0.309]	[0.334]	[0.331]	[0.355]	[0.348]	[0.330]	[0.328]	[0.324]
RACE/ETHNICITY¥								
Afro-Caribbean American		-2.643***	-2.600***	-2.248***	-2.444***	-2.633***	-2.730***	-2.814***
		[0.600]	[0.612]	[0.449]	[0.403]	[0.293]	[0.292]	[0.284]
African American		-2.597***	-2.577***	-1.890***	-2.116***	-2.249***	-2.338***	-2.412***
		[0.436]	[0.442]	[0.389]	[0.348]	[0.246]	[0.260]	[0.258]
SEX			0.558	0.662**	0.372	0.125	0.148	0.188
			[0.294]	[0.220]	[0.215]	[0.174]	[0.175]	[0.176]
PSYCHOLOGICAL RESOURCES								
Self Esteem				-0.347***	-0.291***	-0.305***	-0.293***	-0.286***
				[0.024]	[0.027]	[0.033]	[0.033]	[0.031]
Mastery				-0.287***	-0.227***	-0.205***	-0.197***	-0.211***
				[0.029]	[0.031]	[0.035]	[0.035]	[0.036]
STRESSORS								
Acute Stressors					0.585***	0.596***	0.525***	0.501***
					[0.063]	[0.080]	[0.083]	[0.085]
Economic Hardship					0.187**	0.207***	0.193**	0.182**
					[0.058]	[0.060]	[0.057]	[0.057]
MATERIAL SUPPORT RECIPROCITYξ								
Received More from Family						0.388	0.273	0.393*
						[0.205]	[0.190]	[0.189]
Gave More to Friends						0.627*	0.711*	0.846**
						[0.287]	[0.300]	[0.291]
Received More from Church						0.485*	0.454*	0.376*
						[0.228]	[0.185]	[0.181]
EMOTIONAL SUPPORT								
Family Negative Interaction							0.479**	0.377*
							[0.158]	[0.158]
Intercept	6.400***	9.203***	8.961***	25.720***	20.709***	20.501***	19.841***	20.448***
	[0.744]	[0.967]	[1.030]	[1.280]	[1.503]	[1.119]	[1.516]	[1.727]
N	5345	5345	5345	5287	5247	4194	4184	4184
R^2	0.027	0.097	0.100	0.338	0.378	0.387	0.397	0.405
F	11.189	22.359	48.471	93.253	82.712	75.396	66.237	57.964
df	4	6	7	9	11	17	21	26

Standard errors in brackets. Statistics are weighted according to U.S. population.

* p<0.05, ** p<0.01, *** p<0.001. £ Reference category is Employed. ¥ Reference category is White.

ξ Reference category is Reciprocal Relationship. ᵀ Reference category is Married.

APPENDIX G. Socioeconomic Status, ife Stressors, and Support Mechanisms Regressed on Total Sample Depressive Symptomatology for Each Group

	African American		Afro-Caribbean		White		Difference (p<0.05)
SOCIOECONOMIC STATUS							
Poverty Index	0.061		0.034		-0.42749		A_w,C_w
	(0.041)		(0.091)		(0.115)		
Education	-0.115		-0.180		-0.05778		
	(0.055)		(0.083)		(0.097)		
Unemployed	0.256	*	1.578		2.355557		
	(0.904)		(1.328)		(1.063)		
Not Working	0.198		0.845		0.947108		
	(0.291)		(0.546)		(0.721)		
PSYCHOLOGICAL RESOURCES							
Self Esteem	-0.325	***	-0.148	**	-0.27414	**	
	(0.048)		(0.082)		(0.053)		
Mastery	-0.132	***	-0.229	**	-0.41667	**	
	(0.037)		(0.068)		(0.062)		
STRESSORS							
Acute Stressors	0.602	***	0.309	**	-0.17596		A_w
	(0.124)		(0.249)		(0.229)		
Economic Hardship	0.312	***	0.083	*	0.215332		
	(0.084)		(0.159)		(0.149)		
MATERIAL SUPPORT RECIPROCITY$^\xi$							
Gave More to Family	0.158		1.295		-0.45858		
	(0.799)		(1.027)		(0.612)		
Received More from Family	0.048		-1.733		1.381033		A_c, A_w, C_w
	(0.255)		(0.476)		(0.557)		
Gave More to Friends	0.741		1.084		1.398938		
	(0.556)		(1.194)		(1.067)		
Received More from Friends	0.050		1.129		-0.90856		
	(0.287)		(0.609)		(0.517)		
Gave More to Church	0.234		1.024	*	0.167745		
	(0.301)		(0.325)		(0.623)		
Received More from Church	0.104		0.618		0.013263		
	(0.260)		(0.393)		(0.575)		

Standard errors in parentheses.   * p<0.05, **p<0.01, *p<0.001

A_c = African American - Caribbean Difference

A_w = African American-White Difference

C_w = Caribbean-White Difference

TABLE 3 (continued). Socioeconomic Status, Life Stressors, and Support Mechanisms Regressed on Female Depressive Symptomatology for Each Group

	African American		Afro-Caribbean		White		Difference (p<0.05)
EMOTIONAL SUPPORT							
Family Emotional Support	0.070		-1.171	***	0.732167		A_c
	(0.255)		(0.241)		(0.408)		
Family Negative Interaction	0.341	*	0.526		0.432		
	(0.233)		(0.348)		(0.485)		
Church Emotional Support	0.105		0.499		-0.98017		
	(0.189)		(0.387)		(0.366)		
Church Negative Interaction	0.346		0.241		2.17379		
	(0.241)		(0.240)		(0.729)		
Intercept	18.970	***	14.260	***	26.69653	***	
	(2.135)		(4.056)		(5.311)		
N	792		390		190		
R2	0.401		0.458		0.463		
F	31.55		12.75		.		
df	23		23		15		

Standard errors in parentheses.   * p<0.05, **p<0.01, *p<0.001

A_c = African American - Caribbean Difference

A_w = African American-White Difference

C_w = Caribbean-White Difference

Appendix H. Descriptive Statististics by Church Attendance for Total Sample (Weighted Means and Proportions, Standard Deviations)

Variable	Range	Has attended church N=4920 M	SD	Has not attended church N=426 M	SD	*p* value	X²
CESD	0 - 27	5.02	0.18	5.92	0.48	0.003	141.96
SOCIOECONOMIC STATUS							
Poverty Index	0 - 17	3.15	0.13	2.73	0.22	0.440	42.57
Economic Hardship	3 - 12	4.99	0.05	5.22	0.17	0.069	49.58
Education	4 - 17	12.95	0.12	12.38	0.25	0.322	33.07
Work Status							
Employed	0 - 1	0.68	--	0.73	--	0.027	13.23
Unemployed	0 - 1	0.08	--	0.13	--	0.532	0.77
Not In Labor Force	0 - 1	0.24	--	0.15	--	0.004	20.76
RACE/ETHNICITY							
African American	0 - 1	0.55	--	0.59	--	0.683	0.82
Afro-Caribbean	0 - 1	0.04	--	0.03	--	0.044	1.02
White	0 - 1	0.41	--	0.38	--	0.807	0.31
Self Esteem	12 - 40	35.92	0.13	35.33	0.42	0.176	81.49
Mastery	7 - 28	23.20	0.09	22.88	0.32	0.120	75.80
Acute Stressors	0 - 9	1.59	0.04	1.60	0.11	0.792	8.45
Economic Hardship	3 - 12	4.99	0.05	5.22	0.17	0.231	3.50
MATERIAL SUPPORT RECIPROCITY							
Gave more to Family than Received	0 - 1	0.10	--	0.16	--	0.071	18.79
Received More from Family than Gave	0 - 1	0.36	--	0.34	--	0.299	1.36
Family Reciprocal Support	0 - 1	0.54	--	0.50	--	0.490	2.22
Gave more to Friends than Received	0 - 1	0.05	--	0.02	--	0.026	9.09
Received More from Friends than Gave	0 - 1	0.23	--	0.24	--	0.819	0.16
Friends Reciprocal Support	0 - 1	0.71	--	0.74	--	0.567	1.18
EMOTIONAL SUPPORT							
Emotional Support from Family	1 - 4	3.28	0.02	3.11	0.06	0.021	54.97
NEGATIVE INTERACTION							
Negative Interaction from Family	1 - 4	1.78	0.02	1.88	0.07	0.368	22.86
CONTROLS							
Age	18 - 94	44.15	0.70	34.62	1.28	0.007	279.12
Married	0 - 1	0.40	--	0.22	--	0.001	35.52
Cohabiting	0 - 1	0.08	--	0.11	--	0.067	12.33
Divorced, Widowed or Separated	0 - 1	0.27	--	0.18	--	0.049	11.47
Never Married	0 - 1	0.25	--	0.49	--	0.000	60.51

Statistics are weighted according to U.S. population.